Country Fact Sheets

SLOCAT Partnership on Sustainable, Low Carbon Transport

Transport, Climate and Sustainability
Global Status Report - 3rd edition

Contents

Africa Asia Europe Latin America and the Caribbean North America Oceania

Algeria

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TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Algeria recorded an 8.9% decrease in transport CO_2 emissions between 2015 and 2021 due to the impacts of the COVID-19 pandemic in 2020 and 2021. However, transport is the largest CO_2 producing sector in the country as of 2021. The country's per capita CO_2 emissions in 2021 were 0.92, a reduction from 1.12 in 2019, but still significantly higher than the regional average for Africa of 0.25 ton CO_2.

National efforts to reduce transport emissions focus on the expansion of urban and intercity rail, rail electrification and service improvements. Algeria however lacks policies to improve walking and cycling and vehicle electrification is still missing despite a good environment to regulate used vehicles.

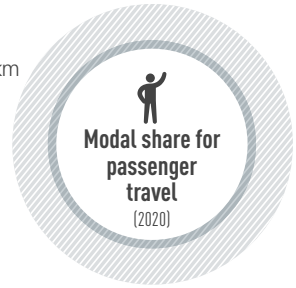
- **Income group:** Middle-income
- **Human Development Index (2021):** 0.745
- **Population size (2022):** 44 543 592 **+13.8%** (2015 - 2022)
- **Urban population share (2022):** 74.8% **+18%** (2015 - 2022)
- **GDP per capita (2021):** 3 985.50 **-6%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

3 900
million passenger-km for rail in 2020

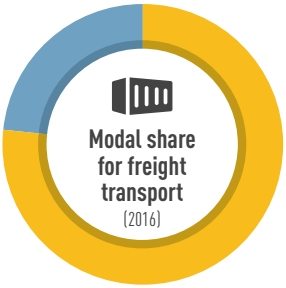
-19.8% (2015 to 2020)



Freight transport activity

3 552
million ton-km for roads and rail in 2020

-1.1% (2015 to 2016)



2020
76.8% Roads
23.2% Railways

Energy consumption (2020)

13.7
million tonnes of oil equivalent

-12% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) (n/a)

95.4% Oil Products
3.6% Natural Gas
1% Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

42.3 million tonnes

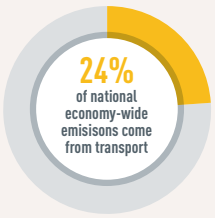
-8.9% (2015 to 2021)

Per capita transport CO_2 emissions (2021)

0.96 tonnes

Per capita transport CO_2 emissions — Global average · Income group average · Regional average · Algeria average

Transport is the largest CO_2 producing sector in the country



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 actions in VNRs

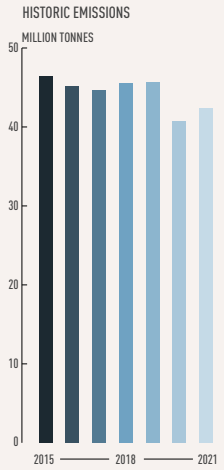
- Infrastructure development
- CNG
- Efficiency improvements
- Public transport and cycling promotion

Transport actions in NDC

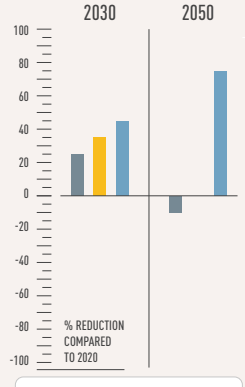
Mitigation
- LPG/CNG/LNG

Adaptation
- Transport laws, regulations and programmes

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not available
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	✕
Low emission zones (2022)	✕

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	✕
Bus rapid transit daily passenger volume (2022)	
Urban rail (LRT, metro, tram) (2022)	116km in 7 cities
Rapid Transit to Resident Ratio (2021)	15.9

Intercity Rail

Rail network (2021)	4000.5 km
Rail travel activity (2019)	348 million-passenger-km
Rail freight activity (2019)	908 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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)	143.6
Average annual growth rate (from 2015 to 2020)	3%

Aviation

Air passengers carried (2020)	1.5 million people
Air freight activity (2020):	15.6 million ton-km
Carbon-accredited airports (2022)	✕
of which carbon neutral:	✕

Shipping

Liner shipping connectivity index (2021):	12.2
Container port traffic (2020):	724991 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	1.02%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2018)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Very good
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✕

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	Not available
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Egypt

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TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Egypt has seen several years of transport CO_2 emission reductions since 2016. Transport CO_2 emissions reduced by 9% between 2015 and 2021. Transport was the third largest contributor of CO_2 emissions in the country in 2021. The per capita transport CO_2 emissions have however remained relatively constant and the country average remains almost twice as high as the regional average.

Since the release of previous edition of Egypt's country fact sheet, the country has put in place a sustainable urban mobility plan for the capital city, and started a national railways modernisation project with the aims to maximise the contribution of railway transportation to the socioeconomic sector. Egypt has also banned importation of used light duty vehicles.

Income group: Middle-income

Human Development Index (2021): 0.731

Population size (2022): 110 132 806 **+13.9%** (2015 - 2022)

Urban population share (2022): 41.5% **+14%** (2015 - 2022)

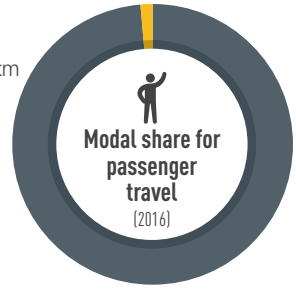
GDP per capita (2021): 3 929.83 **+15.35%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

32 554 million passenger-km for roads and rail in 2020

+14% (2015 to 2016)

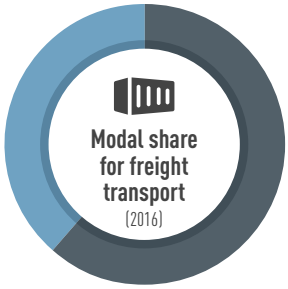


2020
1.2% Roads
98.8% Railways

Freight transport activity

2 368 million ton-km for rail and inland water in 2020

-3.3% (2015 to 2016)



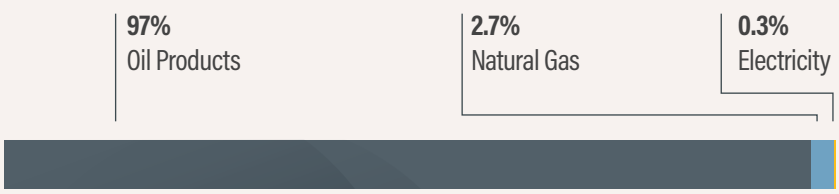
2020
61.6% Railways
38.4% Inland water

Energy consumption (2020)

17.25 million tonnes of oil equivalent

-5.9% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **7.8** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

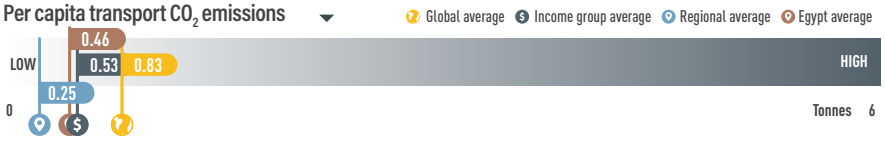
50 million tonnes

-9.1% (2015 to 2021)

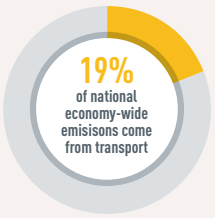
Per capita transport CO_2 emissions (2021)

0.46 tonnes

Per capita transport CO_2 emissions



Transport is the third-largest CO_2 producing sector in the country



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 CO2 emissions by 7% transport sector, BAU GHG emissions by 2030 = 124,360 Gg CO2eq, mitigation target by 2030 = 8,960 Gg CO2eq, 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 actions in VNRs

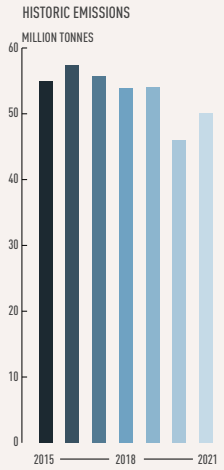
- Integrated national financing framework
- Infrastructure development
- Green bonds for transport

Transport actions in NDC

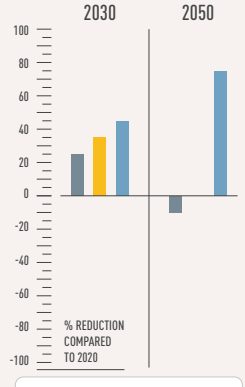
Mitigation Adaptation

- Airport CO2 certification
- BRT
- Cycling measures
- Expansion of infrastructure
- Financial instruments to support decarbonisation
- General active mobility
- General e-mobility
- General infrastructure improvements
- General innovations and digitalization
- Jet fuel policies
- LPG/CNG/LNG
- Public transit integration and expansion
- Use of renewable energy
- Vehicle efficiency standards
- Adaptation and resilience of transport systems
- Risk assessment

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not Available
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	1 city (Cairo)
Low emission zones (2022)	✗

Walking

National walking strategies (2022)	Only subnational strategy

Cycling

National walking strategies (2022)	Only subnational strategy
Cycling infrastructure in capital (2022)	Not Available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	✗
Bus rapid transit daily passenger volume (2022)	
Urban rail (LRT, metro, tram) (2022)	108 km in 2 cities
Rapid Transit to Resident Ratio (2021)	2.5

Intercity Rail

Rail network (2006)	5153 km
Rail travel activity (2006)	40837 million-passenger-km
Rail freight activity (2006)	1592.1 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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)	64.4
Average annual growth rate (from 2015 to 2020)	3.8%

Aviation

Air passengers carried (2020)	4.6 million people
Air freight activity (2020):	438.9 million ton-km
Carbon-accredited airports (2022)	✗
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	66.7
Container port traffic (2020):	5 928 454 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not Available
Renewable energy (biofuels and electricity) share in transport (2020)	0.29%
Targeted % of renewable energy	Not Available

Vehicle Technologies

Emission standards for LDVs (2020)	Not Available
CO_2 emissions performance for passenger cars (2018)	Not Available
Targeted CO_2 emissions performance	Not Available
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	Not Available
Share of electric vehicles in car sales (2022)	Not Available
ICE phase-out targets:	Not Available

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-66% Week of 31 May 2020
... navigation request for walking	-62.30% Week of 29 March 2020
... navigation request for driving	-65.70% Week of 29 March 2020
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VNR	Voluntary national review of the Sustainable Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Ghana

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TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Transport is the largest CO_2 emitting sector in **Ghana**, contributing 38% of the total CO_2 emissions. There was a 14% increase in transport CO_2 emissions between 2015 and 2021. Although vehicle emission standards were adopted, Ghana is still one of the leading importers of used vehicles and there was an exponential increase of 10,000 units of imports between 2019 and 2020. There is also a lack of data on passenger and freight activity, making it difficult to attribute the major growth area of transport emissions.

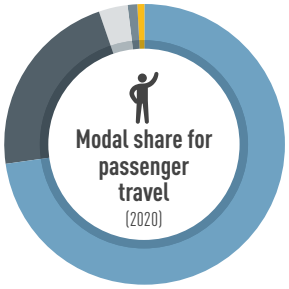
In 2020, the country released an updated National Transport Policy which prioritises sustainable tansportation and climate change. The country's Railway Transport Masterplan was also updated in 2020 to provide for expansion of the rail network.

- **Income group:** Middle-income
- **Human Development Index (2021):** 0.632
- **Population size (2022):** 33 154 506 **+16.2%** (2015 - 2022)
- **Urban population share (2022):** 56.6% **+25.8%** (2015 - 2022)
- **GDP per capita (2021):** 2034.66 **+17.5%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

Not available

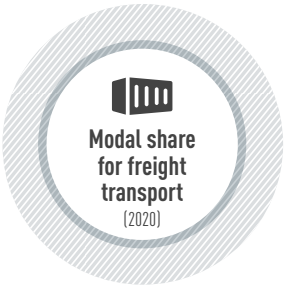


2020

72.9%	Cars
21.9%	Walking
3.5%	Motorcycle
1.0%	Cycling
0.7%	Bus

Freight transport activity

Not available



Energy consumption (2020)

0.004059 million tonnes of oil equivalent

+54.4% (2015 to 2016)

Average light duty fuel economy consumption Lge/100 km (WLTP) (n/a)

75.4% Oil Products

24.6% Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

9.1 million tonnes

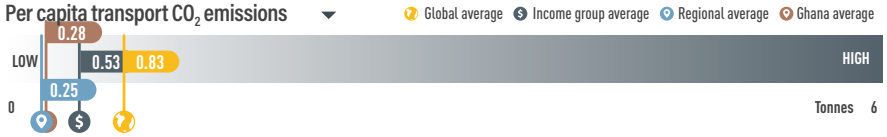
+14.6% (2015 to 2021)

Per capita transport CO_2 emissions (2021)

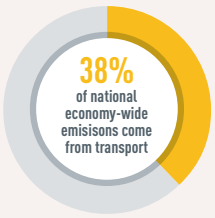
0.28 tonnes

Per capita transport CO_2 emissions

Global average · Income group average · Regional average · Ghana average



Transport is the largest CO_2 producing sector in the country



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

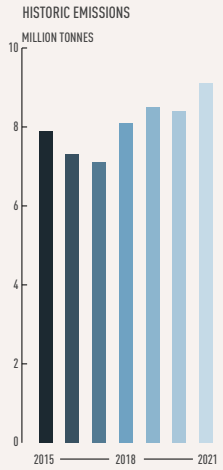
- Not available but references to transport actions in NDCs made

Transport actions in NDC

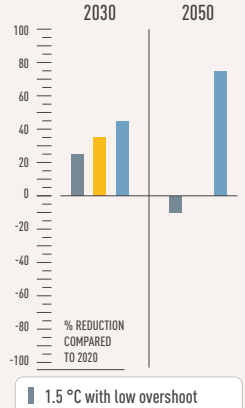
Mitigation
- Expansion of infrastructure

Adaptation
- Transport Planning

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not available
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	1 city (Kumasi, ongoing in 2023)
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Only combined with cycling in National Transport Policy

Targets

- Integrate walking and cycling facilities in all transport infrastructure developments
- Maintain and free-up all existing NMT facilities from encroachment.

Cycling

National walking strategies (2022)	Only combined with walking in National Transport Policy

Targets

- Integrate walking and cycling facilities in all transport infrastructure developments
- Maintain and free-up all existing NMT facilities from encroachment.

Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	✗
Bus rapid transit daily passenger volume (2022)	
Urban rail (LRT, metro, tram) (2022)	Not available
Rapid Transit to Resident Ratio (2021)	Not available

Intercity Rail

Rail network (2016)	953 km
Rail travel activity (2008)	85 million-passenger-km
Rail freight activity (2010)	181 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

Target

- To expand rail network to create an efficient transportation system linking important mineral potentials, communities and every regional capital

Road Transport

Total road vehicles in use per 1,000 people (2020)	Not available
Average annual growth rate (from 2015 to 2020)	Not available

Aviation

Air passengers carried (2020)	0.3 million people
Air freight activity (2020):	0.0 million ton-km
Carbon-accredited airports (2022)	✗
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	37.2
Container port traffic (2020):	1 050 696 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	24.64%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 2
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Good
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	4%, 16%, and 32% of cars and buses sold to be EVs in 2025, 2030, and 2050 respectively

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-58.4% Week of 5 April 2020
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	USD 1.3
Clean transport infrastructure investment:	Not available

Examples

- Road and Bridge Construction Programme

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HDV	Heavy-duty vehicle
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WLTP	Worldwide harmonised light vehicles test procedure

Libya

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Transport is the second largest CO_2 emitting sector in **Libya**. There was a 15.2% increase in transport CO_2 emissions between 2015 and 2021. Libya's value of per capita emissions is almost 10 times the regional average and it is a major importer of used light duty vehicles in the region. There is a general scarcity of statistical data and information on policies and planning on integrated transport, walking, cycling, rail and BRT transport in Libya.

There are currently no known short-term or long-term plans to decarbonise transport in Libya and with this trajectory of BAU, transport CO_2 emissions are expected to increase exponentially in the coming years.

Income group: Middle-income

Human Development Index (2021): 0.718

Population size (2022): 6 774 698 **+10.2%** (2015 - 2022)

Urban population share (2022): 81.9% **+12.2%** (2015 - 2022)

GDP per capita (2021): 9096.79 **+14.78%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

—

Not available

—

Modal share for passenger travel (2020)

Freight transport activity

—

Not available

—

Modal share for freight transport (2020)

Energy consumption (2020)

5.69 million tonnes of oil equivalent

+10.7% (2015 to 2016)

Average light duty fuel economy consumption Lge/100 km (WLTP) — (n/a)

100% Oil Products

Transport Emission Trends

Transport CO_2 emissions (2021)

17.5 million tonnes

+15.2% (2015 to 2021)

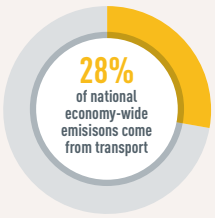
Per capita transport CO_2 emissions (2021)

2.61 tonnes

Per capita transport CO_2 emissions

Global average · Income group average · Regional average · Libya average

Transport is the second-largest CO_2 producing sector in the country



Transport Decarbonisation Pathways

Transport strategy identifies climate change	Not available
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	Not available
VNR highlights transport	✓

Transport actions in VNRs

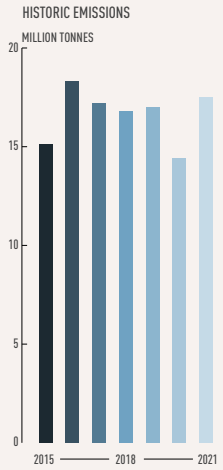
Not available

Transport actions in NDC

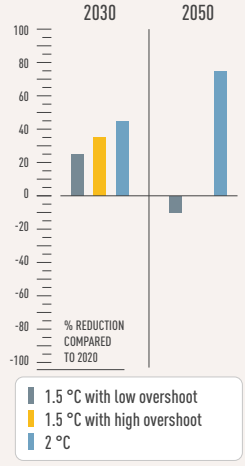
Mitigation: Not available

Adaptation: Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not available
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	Not available
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	✕
Bus rapid transit daily passenger volume (2022)	
Urban rail (LRT, metro, tram) (2022)	Not available
Rapid Transit to Resident Ratio (2021)	Not available

Intercity Rail

Rail network (2021)	Not available
Rail travel activity (2021)	Not available
Rail freight activity (2021)	Not available
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	Not available

Road Transport

Total road vehicles in use per 1,000 people (2020)	489.9
Average annual growth rate (from 2015 to 2020)	4.40%

Aviation

Air passengers carried (2020)	0.7 million people
Air freight activity (2020):	0.6 million ton-km
Carbon-accredited airports (2022)	✕
of which carbon neutral:	✕

Shipping

Liner shipping connectivity index (2021):	12.4
Container port traffic (2020):	0 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	Not available
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Not available
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Very weak
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✕

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-53.3% Week of 5 April 2020
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Morocco

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Morocco recorded a 12.7% increase in transport CO_2 emissions between 2015 and 2021 despite the COVID-19 pandemic in 2020 and 2021 which often resulted in emission reductions. Transport is the second largest CO_2 emitting sector in Morocco. Apart from rail, there is lack of stastistical data about passenger and freight travel activity in Morocco.

Since the last edition of Morocco's transport fact sheet, Morocco submitted a long-term strategy to the UNFCCC, an updated NDC document and the country has completed a national urban mobility plan and sustainable urban mobility plans for 3 cities. There are also plans to expand the coverage of the high-speed rail service.

Income group: Middle-income

Human Development Index (2021): 0.683

Population size (2022): 37 264 469 **+8.1%** (2015 - 2022)

Urban population share (2022): 65.7% **+15.7%** (2015 - 2022)

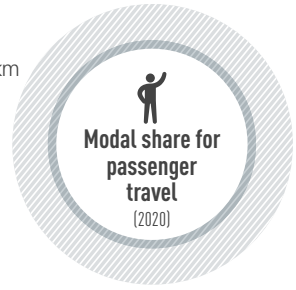
GDP per capita (2021): 3 077.39 **+4.83%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

4 464 million passenger-km for rail in 2020

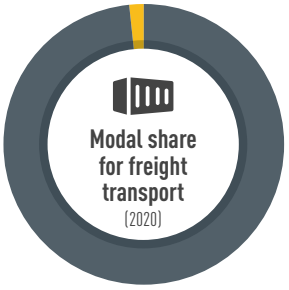
-18.9% (2015 to 2020)



Freight transport activity

3 158 million ton-km for rail and aviation in 2020

-34.1% (2015 to 2020)



2020
98.5% Railways
1.5% Aviation

Energy consumption (2020)

5.43 million tonnes of oil equivalent

+1.5% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) — (n/a)

99.6% Oil Products

0.4% Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

18.5 million tonnes

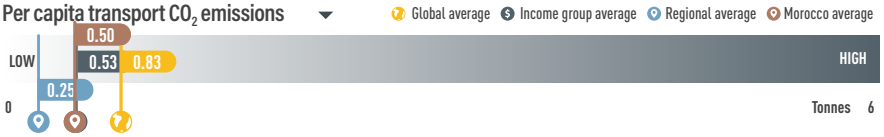
+12.7% (2015 to 2020)

Per capita transport CO_2 emissions (2021)

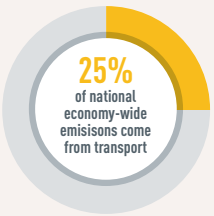
0.5 tonnes

Per capita transport CO_2 emissions

Global average · Income group average · Regional average · Morocco average



Transport is the second-largest CO_2 producing sector in the country



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	Not available
VNR highlights transport	✓ 2020 VNR with transport linkages to SDG 3, SDG 4, SDG 7, SDG 9, SDG 11 and SDG 13

Transport actions in VNRs

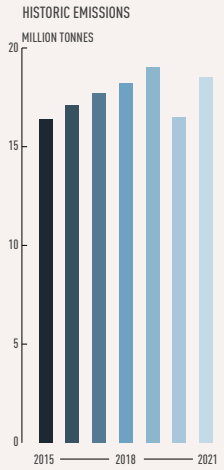
- Urban infrastructure development
- Public transport promotion
- Rural roads development
- Infrastructure development programs
- Energy efficiency improvements
- Rail network planning

Transport actions in NDC

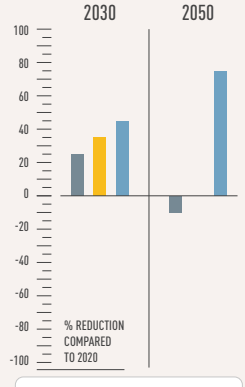
Mitigation

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

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

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

Walking

National walking strategies (2022)	Only in the national policy plan

Cycling

National walking strategies (2022)	Only in the national policy plan
Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	✗
Bus rapid transit daily passenger volume (2022)	
Urban rail (LRT, metro, tram) (2022)	74 km in 2 cities
Rapid Transit to Resident Ratio (2021)	6.0

Intercity Rail

Rail network (2021)	2295.0 km
Rail travel activity (2021)	4464.0 million-passenger-km
Rail freight activity (2021)	3148.0 million ton-km
High-speed rail (2021)	186 km
High-speed rail travel activity (2021)	640 million passenger-km
National plans for passenger and freight rail expansion (2022)	✓

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)	112.3
Average annual growth rate (from 2015 to 2020)	3.70%

Aviation

Air passengers carried (2020)	3.0 million people
Air freight activity (2020):	46.2 million ton-km
Carbon-accredited airports (2022)	2 airports
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	69.3
Container port traffic (2020):	6 980 958 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	0.37%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 4
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Good
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-75.1% Week of 12 April 2020
... navigation request for walking	-86.6% Week of 29 March 2020
... navigation request for driving	-84.9% Week of 29 March 2020
... driven kilometres	-90.1% Week of 12 April 2020
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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List of acronyms

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ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Nigeria

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Nigeria has the highest population and the highest GDP in Africa. Transport is the country's largest CO_2 emitter, accounting for 47% of the national economy-wide emissions, and there has been a 32.6% increase in transport emissions between 2015 and 2021. Nigeria's urban population share has also increased significantly between 2015 and 2022 implying a higher demand and urgency for sustainable urban mobility solutions.

These trends spur the demand for private vehicles as Nigeria is currently the second largest importer of used light duty vehicles in Africa with low vehicle emission standards. Since the previous edition of Nigeria's transport factsheet, there have been milestones such as submission of the long-term strategy to the UNFCCC, and the updated NDC document. Nigeria introduced a railways act to boost trade.

Income group: Middle-income

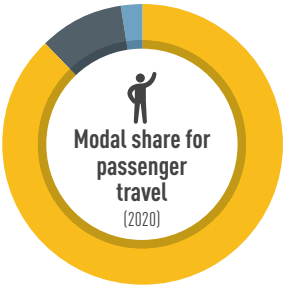
Human Development Index (2021): 0.535

Population size (2022): 215 928 431	**+18.8%** (2015 - 2022)
Urban population share (2022): 53.7%	**+33.9%** (2015 - 2022)
GDP per capita (2021): 2 427.67	**-9.39%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

Not available



2020

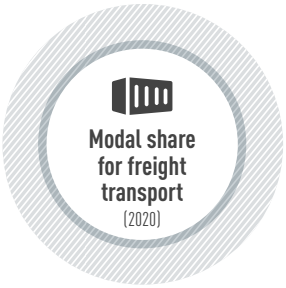
87.8% Cars

10% Walking

2.2% Motorcycle

Freight transport activity

Not available



Energy consumption (2020)

17.3 million tonnes of oil equivalent

+13.8% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) (n/a)

100% Oil Products

Transport Emission Trends

Transport CO_2 emissions (2021)

59.3 million tonnes

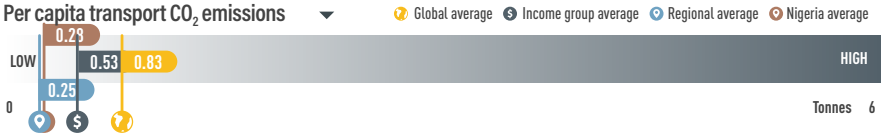
+32.6% (2015 to 2020)

Per capita transport CO_2 emissions (2021)

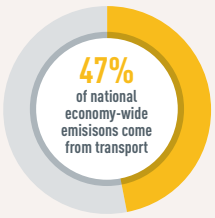
0.28 tonnes

Per capita transport CO_2 emissions

Global average | Income group average | Regional average | Nigeria average



Transport is the largest CO_2 producing sector in the country



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	✓

Transport actions in VNRs

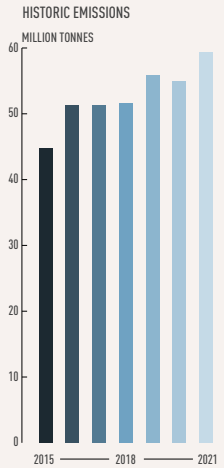
- Improve access to schools
- Rural road development

Transport actions in NDC

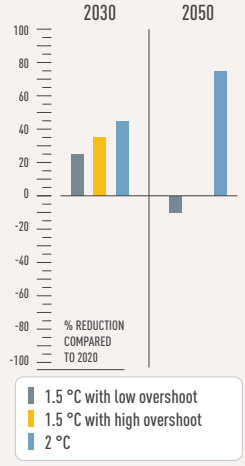
Mitigation
- Bus Rapid Transport
- LPG/CNG/LNG
- Vehicle air pollution emission standards

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✗
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	Not available
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Only combined with cycling

Targets

- Increase mode share of walking, cycling and public transport
- Reduce of use of personal motor vehicles
- Improve road safety
- Improve air quality

Cycling

National walking strategies (2022)	Only combined with walking

Targets

- Same as above for walking

Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	20 km in 1 city
Bus rapid transit daily passenger volume (2022)	200 000
Urban rail (LRT, metro, tram) (2022)	27 km in 1 city
Rapid Transit to Resident Ratio (2021)	0.8

Intercity Rail

Rail network (2015)	3528 km
Rail travel activity (2005)	173.63 million-passenger-km
Rail freight activity (2005)	79.26 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

Target

- To boost intra-African trade as envisaged by the African Continental Free Trade Area (AfCTA)

Road Transport

Total road vehicles in use per 1,000 people (2020)	55.7
Average annual growth rate (from 2015 to 2020)	5%

Aviation

Air passengers carried (2020)	3.4 million people
Air freight activity (2020):	0.7 million ton-km
Carbon-accredited airports (2022)	1 airport
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	20.8
Container port traffic (2020):	15 28 520 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	20% Biodiesel, 10% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	Not available
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 2
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Good
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	100% transition to EV by 2060 with interim targets of 1% EV and 2% HEV by 2030, and 60% EV and 20% HEV by 2050.

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-55% Week of 19 April 2020
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	USD 0.154 billion
Clean transport infrastructure investment:	Not available

Examples

- Road Construction and Rehabilitation

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ICE	Internal combustion engine
LDV	Light-duty vehicle
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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

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

South Africa has the second highest GDP in the region, and transport is the third-largest CO_2 producing sector although it registered a 7.8% decline in carbon emissions between 2015 and 2021. The per capita transport CO_2 emissions of South Africa are significantly higher than the regional average and even slighty higher than the global average.

The country has implemented few transport decarbonisation measures, most of which focus on vehicle efficiency improvements and electrification. The rail strategy outlines some measures to shift freight from roads to railways. South Africa's Green Transport Strategy remains since 2018 to be the main guiding document and it features the target to reduce transport GHG emissions by 5% by 2050 which is highly insufficient compared to the required decarbonisation pathways.

Income group: Middle-income

Human Development Index (2021): 0.713

Population size (2022): 59 646 800 **+8%** (2015 - 2022)

Urban population share (2022): 68.7% **+14.4%** (2015 - 2022)

GDP per capita (2021): 5 954.50 **-5.16%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

3 502

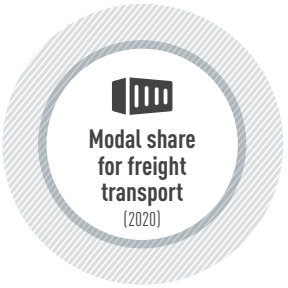
million passenger-km for rail in 2020 in 2020

-74.5% (2015 to 2020)

Freight transport activity

—

Not available



Energy consumption (2020)

15.14

million tonnes of oil equivalent

-17.1% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **7.4** (2019)

98.7% Oil Products

1.3% Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

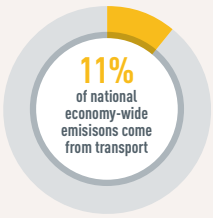
49.7 million tonnes

-7.8% (2015 to 2021)

Per capita transport CO_2 emissions (2021)

0.84 tonnes

Transport is the third-largest CO_2 producing sector in the country



Per capita transport CO_2 emissions

Global average · Income group average · Regional average · South Africa average

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 actions in VNRs

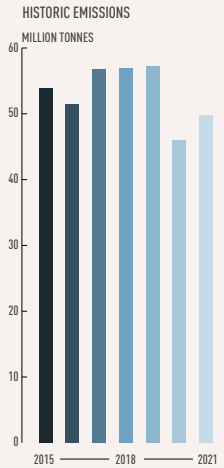
- E-mobility
- Cleaner fuels
- Energy efficiency
- Active mobility
- BRT and public transport improvements
- CNG

Transport actions in NDC

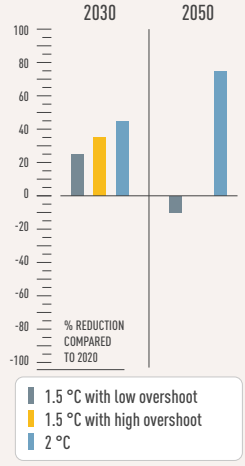
Mitigation
- General e-mobility
- General public transport improvement

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

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✕
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	✕
Low emission zones (2022)	✕

Walking

National walking strategies (2022)	Yes

Targets

- To provide information and guidelines on a variety of aspects related to pedestrian and bicycle facilities
- To integrate walking and cycling into the transport system.
- To improve the quality of life of marginalised people.
- To adhere to the principle of environmental protection, and energy conservation
- To integrate and connect the first and second economies, and the rural and urban areas.
- To promote economic revitalisation of the rural areas.
- To promote safety as a critical facet of public and freight transport.
- To increase accessibility and mobility.

Cycling

National walking strategies (2022)	Yes

Targets

- Same as walking above

Cycling infrastructure in capital (2022)	415 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	88 km in 1 city
Bus rapid transit daily passenger volume (2022)	111 578
Urban rail (LRT, metro, tram) (2022)	824 km in 4 cities
Rapid Transit to Resident Ratio (2021)	3.1

Intercity Rail

Rail network (2021)	20953 km
Rail travel activity (2020)	3501.96 million-passenger-km
Rail freight activity (2008)	113342 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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)	175.8
Average annual growth rate (from 2015 to 2020)	1.50%

Aviation

Air passengers carried (2020)	8.3 million people
Air freight activity (2020):	102.4 million ton-km
Carbon-accredited airports (2022)	6 airports
of which carbon neutral:	✕

Shipping

Liner shipping connectivity index (2021):	39.1
Container port traffic (2020):	4 029 000 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	5% Biodiesel, 2% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	1.32%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 2
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	Convert 5% of the public and national fleet to cleaner alternative fuel and efficient technology vehicles by 2025, with annual increase of 2% thereafter

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-80% Week of 12 April 2020
... navigation request for walking	-82.5% Week of 5 April 2020
... navigation request for driving	-84.9% Week of 5 April 2020
... driven kilometres	-89.4% Week of 5 April 2020
Traditional transport infrastructure investment:	USD 0.036 billion
Clean transport infrastructure investment:	Not available

Examples

- Rural roads maintenance and upgrading programme

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List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Sudan

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Sudan is a low-income country with a few low score in the HDI. Transport is the largest CO_2 emitter in Sudan, contributing 50% of the total emissions in the country. The country however registered a 2.5% decrease in transport CO_2 emissions between 2015 and 2021 and the per capita transport CO_2 emissions are slightly lower than the regional average.

Sudan submitted the 1st and updated NDCs, and a VNR in 2022. The VNR has transport linkages to SDG 8 and SDG 9 but the main focus is on infrastructure. The Sudan Railway Masterplan (2007-2026) aims to enhance rail transport services. But besides rail, there is no information available on other activities related to sustainable transport.

Income group: Low-income

Human Development Index (2021): 0.508

Population size (2022): 46 261 499 **+23.1%** (2015 - 2022)

Urban population share (2022): 35.5% **+25.3%** (2015 - 2022)

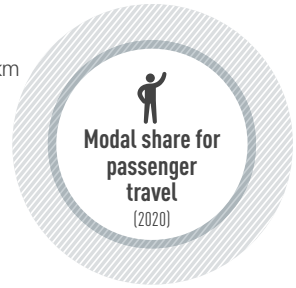
GDP per capita (2021): 1 805.38 **-20.16%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

82
million passenger-km for rail in 2015

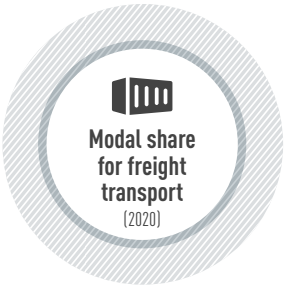
+228% (2010 to 2015)



Freight transport activity

897
million ton-km for rail and aviation in 2020

-4.6% (2010 to 2013)



Energy consumption (2020)

3.43
million tonnes of oil equivalent

+7.9% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) (n/a)

100%
Oil Products

Transport Emission Trends

Transport CO_2 emissions (2021)

10.6 million tonnes

-2.5% (2015 to 2021)

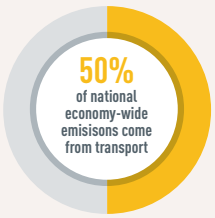
Per capita transport CO_2 emissions (2021)

0.24 tonnes

Per capita transport CO_2 emissions

Global average · Income group average · Regional average · Sudan average

Transport is the largest CO_2 producing sector in the country



Transport Decarbonisation Pathways

Transport strategy identifies climate change	Not Available
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 actions in VNRs

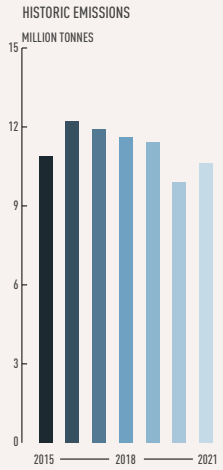
- Provide road and transportation equipment
- Train human resources on infrastructure development, engineering and technology
- Rehabilitating and maintaining the existing road network
- Private sector engagement in road construction and maintenance

Transport actions in NDC

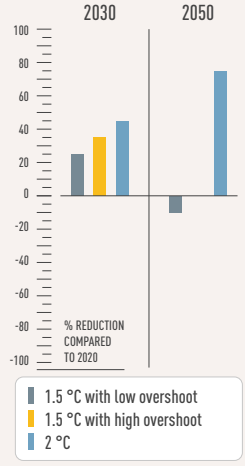
Mitigation
- Biofuels
- Freight transport shifting to rail or inland waterways
- General public transport improvement
- General shipping improvement
- Vehicle efficiency standards

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not available
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	✕
Low emission zones (2022)	✕

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	✕
Bus rapid transit daily passenger volume (2022)	
Urban rail (LRT, metro, tram) (2022)	Not available
Rapid Transit to Resident Ratio (2021)	Not available

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 (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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)	Not available
Average annual growth rate (from 2015 to 2020)	Not available

Aviation

Air passengers carried (2020)	0.4 million people
Air freight activity (2020):	✕
Carbon-accredited airports (2022)	✕
of which carbon neutral:	✕

Shipping

Liner shipping connectivity index (2021):	8.4
Container port traffic (2020):	493002.3 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	5% ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	Not available
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Not available
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✕

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	Not available
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
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NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

China

China's transport CO_2 emissions increased by 15% from 2015 to 2021, mainly driven by a strong increase in freight transport activity. The COVID-19 pandemic impacted passenger travel significantly in 2020 and 2021. However, transport is only responsible for 8% of national CO_2 emissions.

China continues to implement a comprehensive set of sustainable transport strategies, as shown in the previous edition's country factsheet. The size of the urban rail network grew extensively in many cities.

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TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

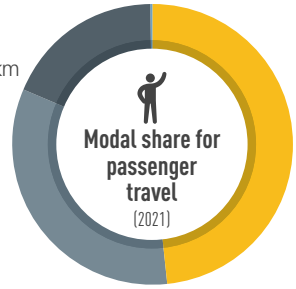
- **Income group:** Middle-income
- **Human Development Index (2021):** 0.768
- **Population size (2022):** 1 425 925 386 — **+2.6%** (2015 - 2022)
- **Urban population share (2022):** 63.8% — **+17.4%** (2015 - 2022)
- **GDP per capita (2021):** 11 082.36 — **+39.24%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

1 975 810
million passenger-km in 2020

- 34.3% (2015 to 2021)

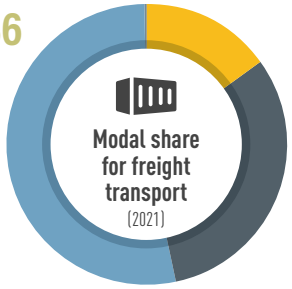


2020
- 48.4% Railways
- 18.4% Highways
- 0.2% Waterways
- 33% Aviation

Freight transport activity

21 818 136
million ton-km in 2020

+ 25.6% (2015 to 2020)



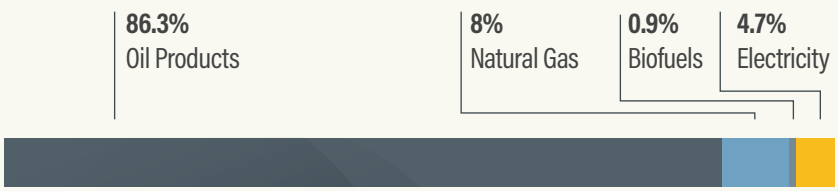
2020
- 15.2% Railways
- 31.7% Highways
- 53% Waterways
- 0.1% Aviation

Energy consumption (2020)

322
million tonnes of oil equivalent

+ 11% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **7.2** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

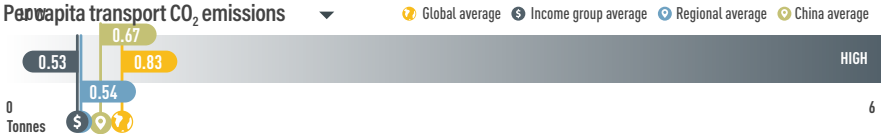
955.5 million tonnes

+ 15.3% (2015 to 2021)

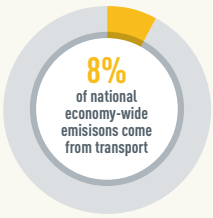
Per capita transport CO_2 emissions (2021)

0.67 tonnes

Per capita transport CO_2 emissions



Transport is the fourth-largest CO_2 producing sector in the country



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 actions in VNRs

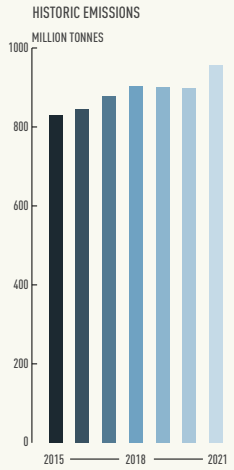
- Improved food supply chains
- Railway electrification
- Efficient, economical, intelligent, green, safe and reliable urban transport

Transport actions in NDC

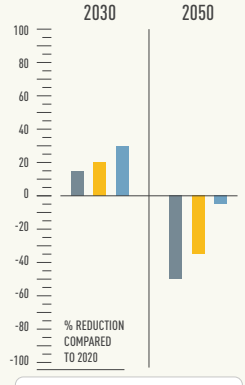
Mitigation

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

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	1 city
Low emission zones (2022)	49 cities

Walking

National walking strategies (2022)	Combined with cycling in national transport strategy

Targets

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

Cycling

National walking strategies (2022)	Combined with walking in national transport strategy

Targets

- Same as above

Cycling infrastructure in capital (2022)	3 200 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	672 km in 20 cities
Bus rapid transit daily passenger volume (2022)	4 375 250
Urban rail (LRT, metro, tram) (2022)	Over 5 400 km in 46 cities
Rapid Transit to Resident Ratio (2021)	14.4

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 (2021)	31 830 km
High-speed rail travel activity (2021)	606 416 million passenger-km
National plans for passenger and freight rail expansion (2022)	✓

Target

- By 2035, expand overall rail network to 200,000 km; with 70,000 km of high-speed railways

Road Transport

Total road vehicles in use per 1,000 people (2020)	223.2
Average annual growth rate (from 2015 to 2020)	14.30%

Aviation

Air passengers carried (2020)	420 million people
Air freight activity (2020):	19 264.2 million ton-km
Carbon-accredited airports (2022)	6 airports
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	171.2
Container port traffic (2020):	245 103 781 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	10% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	5.60%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2019)	135.4 gCO_2/km
Targeted CO_2 emissions performance	59 gCO_2/km by 2025
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	11 000 000
Share of electric vehicles in car sales (2022)	29%
ICE phase-out targets:	No, only on subnational level Hainan - 2030

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	Not available
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	USD 7.01 billion
Clean transport infrastructure investment:	Not available

Examples

- Promoting the deployment of Intelligent Connected Vehicles
- Green Vehicle Investment
- Construction of rural transportation infrastructure
- Logistics industry support
- High-speed rail spending

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WLTP	Worldwide harmonised light vehicles test procedure

India

SLOCAT
TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

India recorded a strong increase in passenger and freight activity from 2015 to 2018, even without any statistics on walking and cycling, which are major modes in cities. Per capita transport CO_2 emissions in 2021 were at 0.2 tons CO_2, well below regional or income averages.

India's NDC lacks any sectoral actions but the VNR and several transport plans intend to move towards a decarbonised transport system. There are plans to develop sustainable urban transport. As of 2022, there is only around 500 km urban rail in 13 Indian cities and no walking nor cycling strategies were identified on the national level.

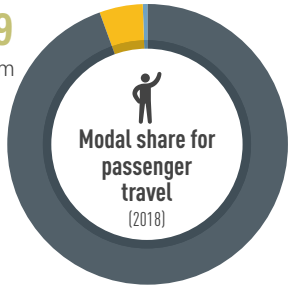
Income group: Middle-income
Human Development Index (2021): 0.633
Population size (2022): 1 412 319 817 +7.4% (2015 - 2022)
Urban population share (2022): 35.8% +18% (2015 - 2022)
GDP per capita (2021): 1 948.28 +21.8% (2015 - 2021)

Transport Demand Trends

Passenger travel activity

23 759 699 million passenger-km in 2020

+43.3% (2015 to 2018)

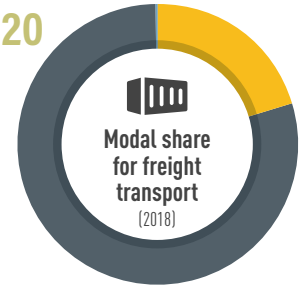


2020
94.5% Roads
4.9% Railways
0.5% Aviation

Freight transport activity

3 392 620 million ton-km in 2020

+67.2% (2015 to 2018)



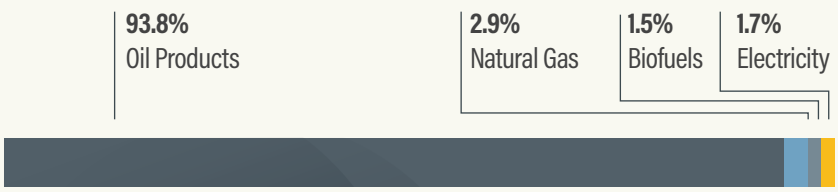
2020
20.4% Railways
79.5% Road
0.1% Aviation

Energy consumption (2020)

92.5 million tonnes of oil equivalent

+6% (2015 to 2018)

Average light duty fuel economy consumption Lge/100 km (WLTP) **5.7** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

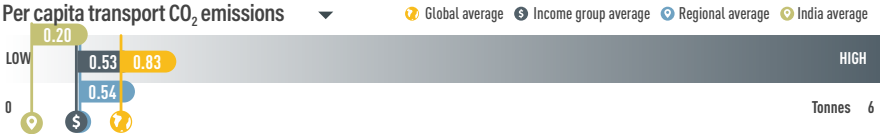
286.2 million tonnes

+11.1% (2015 to 2018)

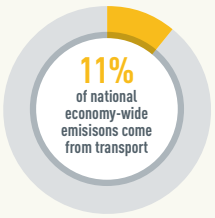
Per capita transport CO_2 emissions (2021)

0.20 tonnes

Per capita transport CO_2 emissions



Transport is the third-largest CO_2 producing sector in the country



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	✓

Transport actions in VNRs

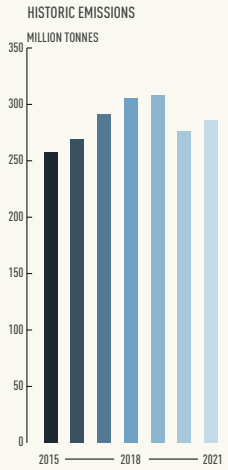
- National Urban Transport Policy
- Waterway development
- Freight development
- Urban metro development

Transport actions in NDC

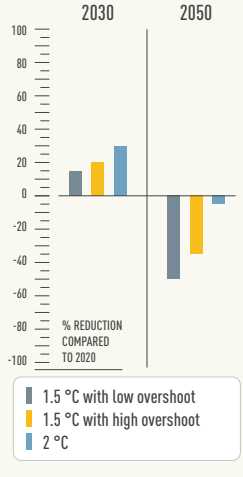
Mitigation
- Not available

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	3 cities
Low emission zones (2022)	1 city

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	36 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	228 km in 9 cities
Bus rapid transit daily passenger volume (2022)	497 411
Urban rail (LRT, metro, tram) (2022)	Over 500 km in 13 cities
Rapid Transit to Resident Ratio (2021)	4.7

Intercity Rail

Rail network (2021)	68 102.7 km
Rail travel activity (2021)	231 126 million-passenger-km
Rail freight activity (2021)	719 762 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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
Average annual growth rate (from 2015 to 2020)	9.60%

Aviation

Air passengers carried (2020)	69 million people
Air freight activity (2020):	875.1 million ton-km
Carbon-accredited airports (2022)	8 airports
of which carbon neutral:	4 airports

Shipping

Liner shipping connectivity index (2021):	58.9
Container port traffic (2020):	16 285 806 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	0.07% Biodiesel, 10% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	3.20%
Targeted % of renewable energy	5% biodiesel (for road transport) by 2030 and 20% ethanol by 2025

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2020)	121 gCO_2/km
Targeted CO_2 emissions performance	113 gCO_2/km by 2022
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	72 000
Share of electric vehicles in car sales (2022)	1.5%
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-73.0% Week of 5 April 2020
... navigation request for walking	-75.4% Week of 12 April 2020
... navigation request for driving	-82.8% Week of 12 April 2020
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

Examples

- Investments in electric buses and charging stations

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List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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

SLOCAT
TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

While **Indonesia** was recording a strong growth of transport CO_2 emissions until 2019, the COVID-19 pandemic in 2020 and 2021 resulted in a emission decline of more than 10% in these two years. The per capita transport emissions in 2021 are close to the income and regional average.

Biofuels represent 12% of Indonesia's transport energy consumption due to high biofuel blending mandates. Indonesia's intention is to increase the biofuel mandates further by 2025. Urban transport will be improved through more metro lines and cycling infrastructure is being expanded in Jakarta. A national railway network will be established by 2030.

Income group: Middle-income
Human Development Index (2021): 0.705
Population size (2022): 274 616 289 **+x6.6%** (2015 - 2022)
Urban population share (2022): 58.5% **+16.8%** (2015 - 2022)
GDP per capita (2021): 3 904.85 **+16.9%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

29 068 million passenger-km for rail and aviation in 2020

+30.4% (2015 to 2020)

Modal share for passenger travel (2020)

Freight transport activity

16 754 million ton-km for rail and aviation in 2020

+4.7% (2015 to 2020)

Modal share for freight transport (2020)

Energy consumption (2020)

48.1 million tonnes of oil equivalent

+7.6% (2015 to 2020)

88.2% Oil Products

11.8% Biofuels

Average light duty fuel economy consumption Lge/100 km (WLTP) **8.1** (2019)

Transport Emission Trends

Transport CO_2 emissions (2021)

135 million tonnes

+2.3% (2015 to 2020)

Per capita transport CO_2 emissions (2021)

0.49 tonnes

Transport is the third-largest CO_2 producing sector in the country

22% of national economy-wide emisisons come from transport

Per capita transport CO_2 emissions

Global average · Income group average · Regional average · Indonesia average

Transport Decarbonisation Pathways

Transport strategy identifies climate change	Not available
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 actions in VNRs

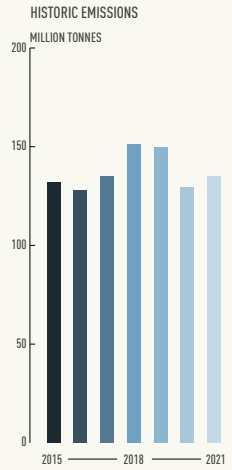
- Improving transport links
- Enhancing the maritime sector's infrastructure
- Expanding access to remote areas
- Providing alternative multi-modal transport options
- Developing urban mobility and access to public transport

Transport actions in NDC

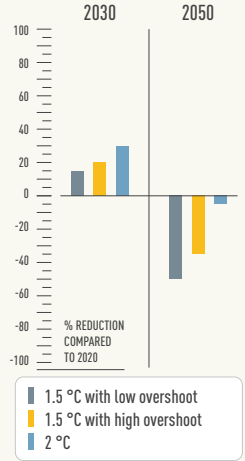
Mitigation
- Biofuels
- Fuel quality improvements
- LPG/CNG/LNG

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

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	1 city
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Walking combined with cycling in active mobility planning

Targets
- Targets to be defined on local level

Cycling

National walking strategies (2022)	Cycling combined with walking in active mobility planning

Targets
- Targets to be defined on local level

Cycling infrastructure in capital (2022)	193.6 km of bicycle lanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	251 km in 1 city
Bus rapid transit daily passenger volume (2022)	46 467
Urban rail (LRT, metro, tram) (2022)	45 km in 2 cities
Rapid Transit to Resident Ratio (2021)	6.1

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 (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2021)	✓

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)	77.7
Average annual growth rate (from 2015 to 2020)	4.90%

Aviation

Air passengers carried (2020)	38 million people
Air freight activity (2020):	674.8 million ton-km
Carbon-accredited airports (2022)	1 airports
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	32.7
Container port traffic (2020):	14 025 449 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	35% Biodiesel, 5% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	11.85%
Targeted % of renewable energy	40% biodiesel and 20% ethanol by 2025

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 4
CO_2 emissions performance for passenger cars (2017)	140 gCO_2/km
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-62.1% Week of 3 May 2020
... navigation request for walking	-68.9% Week of 26 April 2020
... navigation request for driving	-59.7% Week of 26 April 2020
... driven kilometres	-74.4% Week of 3 May 2020
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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List of acronyms

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LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Iran

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Iran records per capita transport CO_2 emissions of 1.52 tons in 2021, which is three times as high as the average for Asia. Transport CO_2 emissions reduced slightly from 2015 to 2021. However, transport is only the fourth-largest CO_2 producting sector in Iran.

There is no NDC nor LTS in order to better understand national ambition on climate actions on transport. The main focus of Iran is to develop the rail network by adding more rail, increasing passenger capacity and good transport. Five cities have urban rail and Tehran intends to develop an extensive cycling infrastructure.

Income group: Middle-income

Human Development Index (2021): 0.774

Population size (2022): 88 256 642 **+74%** (2015 - 2022)

Urban population share (2022): 74% **+12.1%** (2015 - 2022)

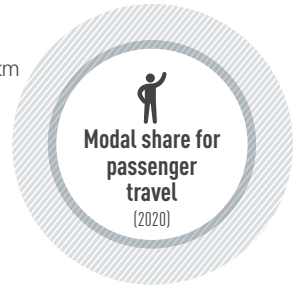
GDP per capita (2020): 5 149.3 **+2.03%** (2015 - 2020)

Transport Demand Trends

Passenger travel activity

5 170
million passenger-km for rail in 2020

-65.4% (2015 to 2020)



2020
100% Railways

Freight transport activity

35 963
million ton-km for rail in 2020

+43.8% (2015 to 2020)

Energy consumption (2020)

44.6
million tonnes of oil equivalent

-6.3% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) — (n/a)

84% Oil Products

16% Natural Gas

Transport Emission Trends

Transport CO_2 emissions (2021)

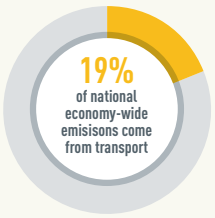
133.1 million tonnes

-4.3% (2015 to 2021)

Per capita transport CO_2 emissions (2021)

1.52 tonnes

Transport is the fourth-largest CO_2 producing sector in the country



Per capita transport CO_2 emissions

Global average · Income group average · Regional average · Iran average

Transport Decarbonisation Pathways

Transport strategy identifies climate change	Not available
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	✗ 2017 VNR with no transport linkages

Transport actions in VNRs

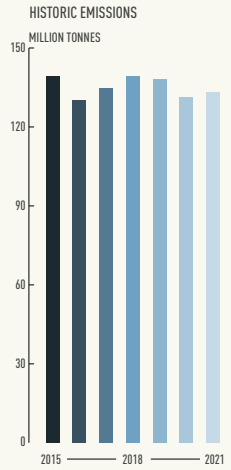
Not available

Transport actions in NDC

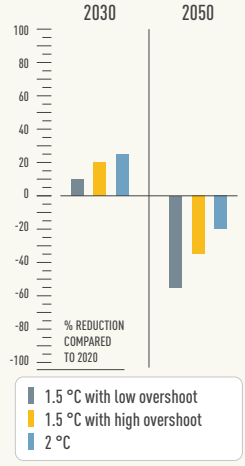
Mitigation: Not available

Adaptation: Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not available
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	Not available
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	550 km of separated bikelanes by 2024

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	165 km in 3 cities
Bus rapid transit daily passenger volume (2022)	2 135 000
Urban rail (LRT, metro, tram) (2022)	134 km in 5 cities
Rapid Transit to Resident Ratio (2021)	9.3

Intercity Rail

Rail network (2021)	9 455 km
Rail travel activity (2021)	11 231 million-passenger-km
Rail freight activity (2021)	32 920 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

Target

- By 2025, 5000 km railway network with approximately 6000 km double-tracked,
- Total capacity for passenger transport to be increased to 160 million,
- Carrying 220 million tons of cargo,
- Railway market share in cargo transport to be 30% and 18% for passenger transport

Road Transport

Total road vehicles in use per 1,000 people (2020)	182.9
Average annual growth rate (from 2015 to 2020)	2.50%

Aviation

Air passengers carried (2020)	13 million people
Air freight activity (2020):	202.1 million ton-km
Carbon-accredited airports (2022)	✗
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	31.1
Container port traffic (2020):	1 853 000 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	Not available
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Not available
CO_2 emissions performance for passenger cars (2017)	140 gCO_2/km
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Very good
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	Not available
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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VNR	Voluntary national review of the Sustainable Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Japan

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Japan as a high-income country with a high HDI and most people living in urban population. The country intends to reduce transport CO_2 emissions by 27% below 2013 levels by 2030.

Transport is responsible for 17% of national CO_2 emissions thanks to the well-developed public transport system, extensive rail (incl. high-speed rail) and high vehicle emission standards. Electric vehicle uptake is still low due to a lack of phase-out targets.

Income group: High-income

Human Development Index (2021): 0.925

Population size (2022): 124 278 310 **-2.4%** (2015 - 2022)

Urban population share (2022): 93% **+x%** (2015 - 2022)

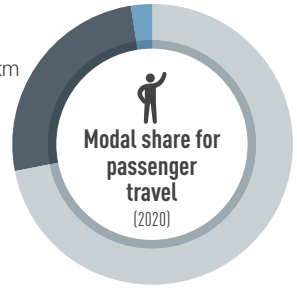
GDP per capita (2021): 35 485.90 **+1.68%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

1 007 058 million passenger-km in 2020

-8.8% (2015 to 2020)

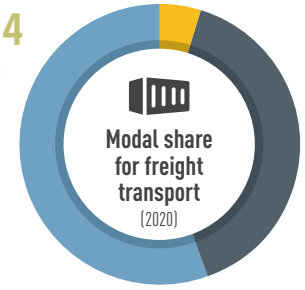


2020
- 72% Passenger cars
- 25.5% Railways
- 2.5% Bus

Freight transport activity

385 584 million ton-km in 2020

-5% (2015 to 2020)



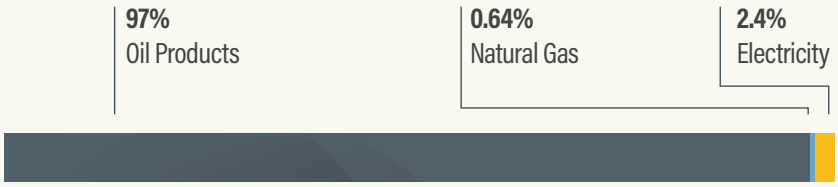
2020
- 4.8% Railways
- 39.9% Inland water
- 55.4% Road

Energy consumption (2020)

62.4 million tonnes of oil equivalent

-14.3% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **5.5** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

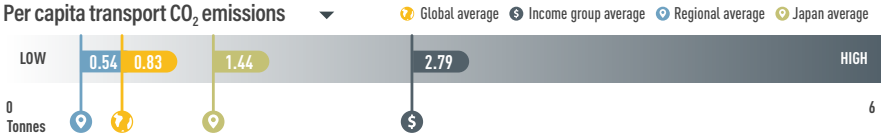
179.9 million tonnes

-14.9% (2015 to 2021)

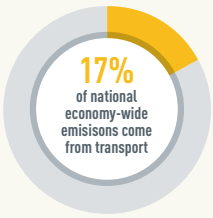
Per capita transport CO_2 emissions (2021)

1.44 tonnes

Per capita transport CO_2 emissions



Transport is the third-largest CO_2 producing sector in the country



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 27% below 2013 levels by 2030, to reach 163 million tonnes of CO_2 or less (continuation from first 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

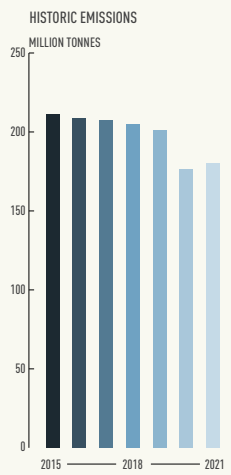
- Promotion of public transport
- Construction of a safe, smart, and sustainable road transportation system
- On-demand transportation and other digitalisation options

Transport actions in NDC

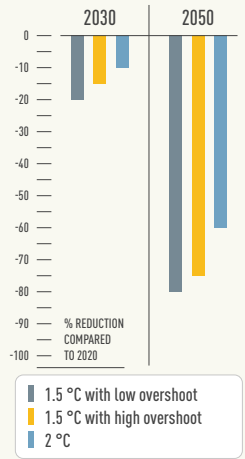
Mitigation
- Not available

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	No but Low Carbon City Act
Number of sustainable urban mobility plans (2022)	✗
Low emission zones (2022)	1 city

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Yes
Cycling infrastructure in capital (2022)	10 km of separated bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	29 km in 2 cities
Bus rapid transit daily passenger volume (2022)	9 100
Urban rail (LRT, metro, tram) (2022)	Over 1,000 km in 30 cities
Rapid Transit to Resident Ratio (2021)	19.1

Intercity Rail

Rail network (2011)	20 087 km
Rail travel activity (2020)	263 211 million-passenger-km
Rail freight activity (2020)	18 340 million ton-km
High-speed rail (2021)	2 849 km
High-speed rail travel activity (2021)	44 281 million passenger-km
National plans for passenger and freight rail expansion (2022)	✓

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)	612.4
Average annual growth rate (from 2015 to 2020)	-0.20%

Aviation

Air passengers carried (2020)	51 million people
Air freight activity (2020):	7841.5 million ton-km
Carbon-accredited airports (2022)	4 airports
of which carbon neutral:	3 airports

Shipping

Liner shipping connectivity index (2021):	69.7
Container port traffic (2020):	21 385 632 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	3%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2018)	114.6 gCO_2/km
Targeted CO_2 emissions performance	73.5 gCO_2/km by 2030
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	210 000
Share of electric vehicles in car sales (2022)	3%
ICE phase-out targets:	Not available

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-56.7% Week of 10 May 2020
... navigation request for walking	-37.5% Week of 26 April 2020
... navigation request for driving	-29.6% Week of 26 April 2020
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	USD 0.14 billion

Examples

- Local public transport support

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List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Saudi Arabia

SLOCAT
TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Saudi Arabia has with 3.68 tonnes a high level of per capita transport CO_2 emissions. Transport is completely fossil fuel-based and responsible for 22% of national CO_2 emissions.

The country's ambitions focus on public transport, vehicle efficiency and rail network expansion. There is no information on strategies in support of walking, cycling and vehicle electrification.

Income group: High-income
Human Development Index (2021): 0.875
Population size (2022): 36 136 551 +11.4% (2015 - 2022)
Urban population share (2022): 83.9% +15.5% (2015 - 2022)
GDP per capita (2021): 18 793.26 -6.81% (2015 - 2021)

Transport Demand Trends

Passenger travel activity

464 million passenger-km for rail in 2018 in 2018

+23% (2014 to 2018)

Freight transport activity

1 772 million ton-km for rail in 2018

+18% (2014 to 2018)

Energy consumption (2020)

409 million tonnes of oil equivalent

-16.7% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) (n/a)

100% Oil Products

Transport Emission Trends

Transport CO_2 emissions (2021)

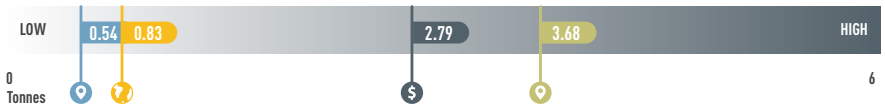
131.7 million tonnes

-10.4% (2015 to 2021)

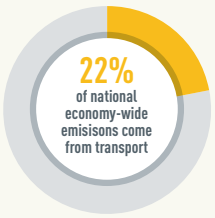
Per capita transport CO_2 emissions (2021)

3.68 tonnes

Per capita transport CO_2 emissions — Global average · Income group average · Regional average · Saudi Arabia average



Transport is the second-largest CO_2 producing sector in the country



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	Not available
VNR highlights transport	✗ 2018 VNR with no transport linkages

Transport actions in VNRs

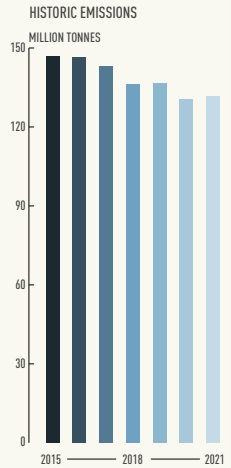
Not available

Transport actions in NDC

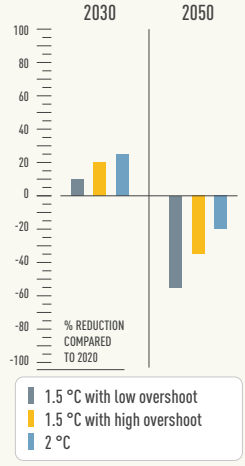
Mitigation
- Public transit integration and expansion
- Vehicle efficiency standards

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	Not available
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	✗
Bus rapid transit daily passenger volume (2022)	
Urban rail (LRT, metro, tram) (2022)	176 km in 1 city
Rapid Transit to Resident Ratio (2021)	0

Intercity Rail

Rail network (2018)	2 639 km
Rail travel activity (2018)	134.65 million-passenger-km
Rail freight activity (2010)	1 852.5 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	Yes under national transport strategy

Target

- Efficiently and effectively connect the centers of economic activities of the Kingdom by developing strategic rail infrastructure
- Establish a high capacity and high quality railway connection between Dammam and Riyadh which is integrated with other transport modes
- Ensure safety on the railway network system
- Trigger public transport demand and support passenger railway transport by subsidies
- Reduce air pollution including minimizing energy consumption for railway services
- Maximize rail revenues from a variety of sources to reduce dependence on public funding

Road Transport

Total road vehicles in use per 1,000 people (2020)	Not available
Average annual growth rate (from 2015 to 2020)	Not available

Aviation

Air passengers carried (2020)	27.0 million people
Air freight activity (2020):	649.3 million ton-km
Carbon-accredited airports (2022)	1 airport
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	69.5
Container port traffic (2020):	9 394 100 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	Not available
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Not available
CO_2 emissions performance for passenger cars (2018)	140 gCO_2/km
Targeted CO_2 emissions performance	59 gCO_2/km by 2030
Regulatory environment ranking on used vehicles by UNEP (2021)	Good
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	Not available

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-82.4% Week of 19 April 2020
... navigation request for walking	-52.5% Week of 26 April 2020
... navigation request for driving	-60.9% Week of 26 April 2020
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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VNR	Voluntary national review of the Sustainable Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

France

SLOCAT
TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

France is one of the few countries that achieved an absolute reduction of transport CO_2 emissions from 2015 to 2019. Nevertheless, transport is the country's largest CO_2-emitting sector. Freight seems to have recorded above-average growth during the COVID-19 pandemic in 2020. It is still highly dependent on road modes (85% of all freight activity).

The plans identified in the previous edition are still the main strategies. COVID-19 recovery investments provide with USD 2.1 billion a significant shift towards clean transport investments. Besides the EU Green Deal (which is not covered here), France has released a new active mobility strategy and new rail improvement plans. Every fifth car bought in 2022 was a battery-electric vehicle.

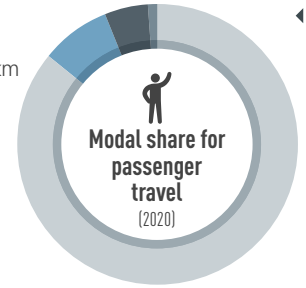
Income group: High-income
Human Development Index (2021): 0.903
Population size (2022): 64 560 542 +1.3% (2015 - 2022)
Urban population share (2022): 83.6% +5.1% (2015 - 2022)
GDP per capita (2021): 39 985.59 +4.45% (2015 - 2021)

Transport Demand Trends

Passenger travel activity

732.60 billion passenger-km in 2020

-18.6% (2015 to 2020)

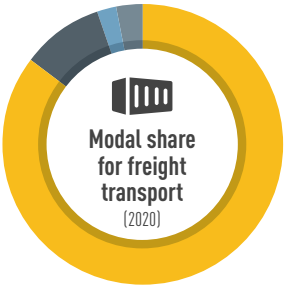


2020
86% Passenger cars
5.1% Buses and coaches
8.1% Railways
0.9% Tram and metro

Freight transport activity

328.10 billion ton-km in 2020

+7.6% (2015 to 2020)



2020
85.3% Road
9.6% Rail
2.1% Inland Waterways
2.9% Pipelines

Energy consumption (2020)

38.3 million tonnes of oil equivalent

-15.8% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **5.5** (2019)

90.6% Oil Products
0.5% Natural Gas
7.1% Biofuels
1.8% Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

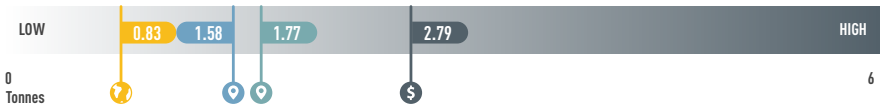
114.3 million tonnes

-10.6% (2015 to 2021)

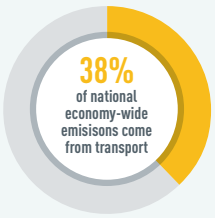
Per capita transport CO_2 emissions (2021)

1.77 tonnes

Per capita transport CO_2 emissions — Global average | Income group average | Regional average | France average



Transport is the largest CO_2 producing sector in the country



Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✓
NDC submitted:	1st and Updated NDC as European Union
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 transport linkages to SDG 11 and SDG 13

Transport actions in VNRs

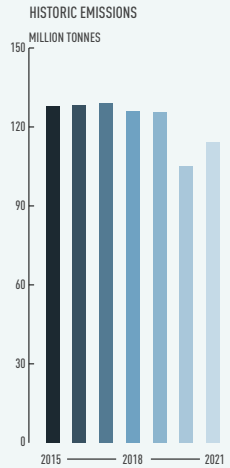
- Efficient public transport
- Cycling infrastructure and bikesharing services

Transport actions in NDC

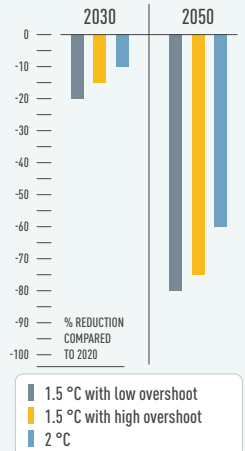
Mitigation
- Emissions trading and carbon pricing
- Vehicle efficiency standards

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	137 cities
Low emission zones (2022)	18 cities

Walking

National walking strategies (2022)	Covered under active mobility plan

Cycling

National walking strategies (2022)	✓

Targets

- Make cycling an attractive alternative to private car trips;
- Make cycling a lever for France's economy;
- Make cycling accessible to everyone at all ages.

Cycling infrastructure in capital (2022)	1,000 km of separated bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	386 km in 23 cities
Bus rapid transit daily passenger volume (2022)	1735119
Urban rail (LRT, metro, tram) (2022)	Over 586 km in 30 cities
Rapid Transit to Resident Ratio (2021)	66.9

Intercity Rail

Rail network (2021)	27716.0 km
Rail travel activity (2021)	86853.0 million-passenger-km
Rail freight activity (2021)	35751.3 million ton-km
High-speed rail (2021)	3276 km
High-speed rail travel activity (2021)	47704 million passenger-km
National plans for passenger and freight rail expansion (2022)	✓

Target

- France to invest EUR 100 billion in upgrades of rail services by 2040

Road Transport

Total road vehicles in use per 1,000 people (2020)	704.4
Average annual growth rate (from 2015 to 2020)	0.90%

Aviation

Air passengers carried (2020)	25.0 million people
Air freight activity (2020):	24679 million ton-km
Carbon-accredited airports (2022)	46 airports
of which carbon neutral:	5 airports

Shipping

Liner shipping connectivity index (2021):	74.3
Container port traffic (2020):	5 107 857 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	8.4% Biodiesel, 9.2% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	8.90%
Targeted % of renewable energy	15% biofuels in motor fuel by 2030

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2020)	109 gCO_2/km
Targeted CO_2 emissions performance	0 gCO_2/km by 2035
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	620 000
Share of electric vehicles in car sales (2022)	21%
ICE phase-out targets:	2040 (but EU is 2035)

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-83.4% Week of 29 March 2020
... navigation request for walking	-85.6% Week of 5 April 2020
... navigation request for driving	-79.1% Week of 29 March 2020
... driven kilometres	-86.3% Week of 29 March 2020
Traditional transport infrastructure investment:	USD 5.56 billion
Clean transport infrastructure investment:	USD 2.09 billion

Examples

- Biking subsidies
- Funds to accelerate current transport infrastructure projects
- Biking and public transport support
- Improved connectivity and quality of rail network

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VNR	Voluntary national review of the Sustainable Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Germany

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Except for the impacts of the COVID-19 pandemic in 2020 and 2021 on passenger travel activity and transport CO_2 emissions, there are very few changes in Germany's ambition on sustainable transport. Transport is still the second largest CO_2-emitting sector in Germany.

Germany records a variety of well-established policy areas, such as sustainable urban mobility plans, walking and cycling strategies, public transport and rail investments. However, since the previous edition in 2021, there were no major updates in the ambition. As an high-income country, Germany has to reduce transport CO_2 emissions from now and achieve a decarbonised transport system by 2050.

Income group: High-income

Human Development Index (2021): 0.942

Population size (2022): 83 426 789 +1.8% (2015 - 2022)

Urban population share (2022): 76.9% +1.7% (2015 - 2022)

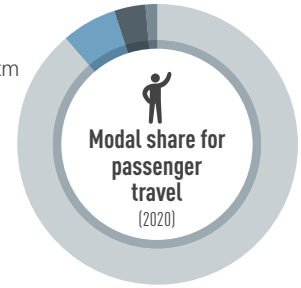
GDP per capita (2021): 42 393.43 +3.49% (2015 - 2021)

Transport Demand Trends

Passenger travel activity

912.70 billion passenger-km in 2020

-17.2% (2015 to 2020)



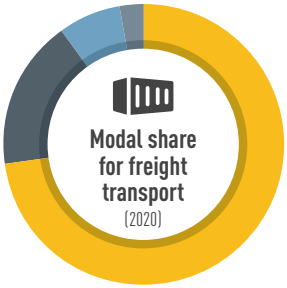
2020

88.7%	Passenger cars
3.7%	Buses and coaches
6.3%	Railways
1.3%	Tram and metro

Freight transport activity

638.70 billion ton-km in 2020

+2.7% (2015 to 2020)



2020

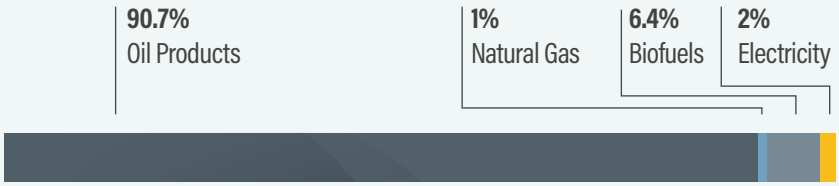
73%	Road
17.1%	Rail
7.3%	Inland Waterways
2.6%	Pipelines

Energy consumption (2020)

51.4 million tonnes of oil equivalent

-7.7% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **6.2** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

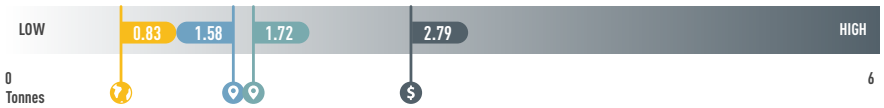
143.5 million tonnes

-9% (2015 to 2021)

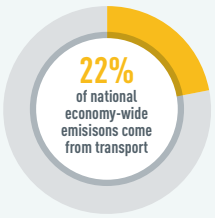
Per capita transport CO_2 emissions (2021)

1.72 tonnes

Per capita transport CO_2 emissions — Global average · Income group average · Regional average · Germany average



Transport is the second-largest CO_2 producing sector in the country



Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✓
NDC submitted:	1st and Updated NDC as European Union
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 4, SDG 7, SDG 8, SDG 9, SDG 11, SDG 12 and SDG 13

Transport actions in VNRs

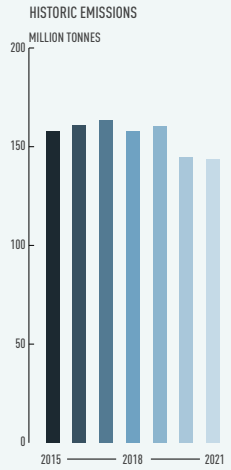
- Emission trading scheme
- Sustainable investments in infrastructure and public transport
- Transport infrastructure plan for all modes
- Future of mobility platform

Transport actions in NDC

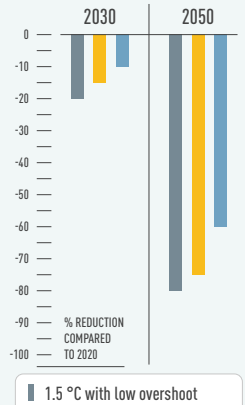
Mitigation
- Emissions trading and carbon pricing
- Vehicle efficiency standards

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	107 cities
Low emission zones (2022)	77 cities

Walking

National walking strategies (2022)	✓

Targets

- Increase foot traffic and implement shorter distances

Cycling

National walking strategies (2022)	✓

Targets

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

Cycling infrastructure in capital (2022)	620 km of separated bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	31 km in 2 cities
Bus rapid transit daily passenger volume (2022)	42 000
Urban rail (LRT, metro, tram) (2022)	Over 2 200 km in 62 cities
Rapid Transit to Resident Ratio (2021)	87.9

Intercity Rail

Rail network (2021)	33401.0 km
Rail travel activity (2020)	58822 million-passenger-km
Rail freight activity (2021)	1230670 million ton-km
High-speed rail (2021)	1104 km
High-speed rail travel activity (2021)	19572 million passenger-km
National plans for passenger and freight rail expansion (2022)	✓

Target

- modernising and maintaining as well as building and expanding the rail network

Road Transport

Total road vehicles in use per 1,000 people (2020)	627.3
Average annual growth rate (from 2015 to 2020)	1.50%

Aviation

Air passengers carried (2020)	26.0 million people
Air freight activity (2020):	5454.6 million ton-km
Carbon-accredited airports (2022)	5 airports
of which carbon neutral:	1 airport

Shipping

Liner shipping connectivity index (2021):	85.1
Container port traffic (2020):	18 028 702 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	4.4% Biodiesel, 2.8% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	8.40%
Targeted % of renewable energy	at least 2.6% ishould be advanced biofuels by 2030; 2% e-kerosene in aviation by 2030

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2020)	109 gCO_2/km
Targeted CO_2 emissions performance	0 gCO_2/km by 2035
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	1000000
Share of electric vehicles in car sales (2022)	31%
ICE phase-out targets:	No (but EU by 2035)

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-58.0% Week of 3 January 2021
... navigation request for walking	-54.2% Week of 29 March 2020
... navigation request for driving	-53.9% Week of 29 March 2020
... driven kilometres	-71.1% Week of 29 March 2020
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	USD 2.79 billion

Examples

- Public transport infrastructure and service support
- Federal regulation for public transport compensation

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Italy

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Italy has recorded a stagnation in transport CO_2 emissions from 2015 to 2019 and the per capita emissions in 2021 are slightly below the regional average. The COVID-19 pandemic in 2020 led to a decline of nearly 20% in transport CO_2 emissions in 2020. However, the emissions already started to rebound in 2021.

Italy showed already in the previous edition strong planning frameworks managing the urban transport demand. Since then a new inter-city rail plan and a new national cycling strategy were implemented. The strategies did not yet lead to a substantial increase in initiatives.

Income group: High-income

Human Development Index (2021): 0.895

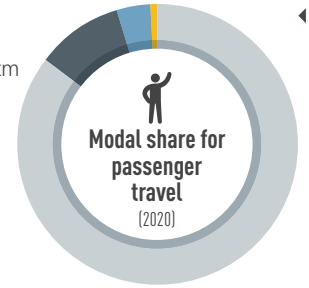
Population size (2022): 59 119 400	**-2%** (2015 - 2022)
Urban population share (2022): 71.4%	**+2%** (2015 - 2022)
GDP per capita (2021): 31 355.18	**+2.9%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

572.60 billion passenger-km in 2020

-31.2% (2015 to 2020)



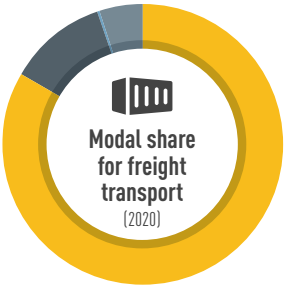
2020

85.3%	Passenger cars
10.1%	Buses and coaches
3.9%	Railways
0.7%	Tram and metro

Freight transport activity

182.90 billion ton-km in 2020

+11.2% (2015 to 2020)



2020

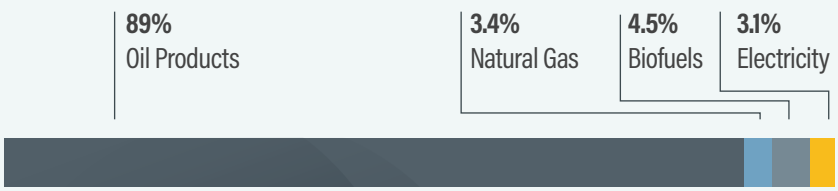
83.6%	Road
11.4%	Rail
0.05%	Inland Waterways
5%	Pipelines

Energy consumption (2020)

29.1 million tonnes of oil equivalent

-20% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **5.7** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

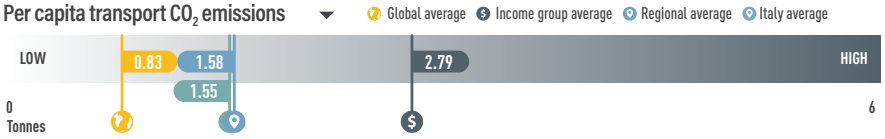
92.1 million tonnes

-10.6% (2015 to 2021)

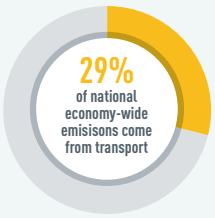
Per capita transport CO_2 emissions (2021)

1.55 tonnes

Per capita transport CO_2 emissions



Transport is the second-largest CO_2 producing sector in the country



Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓	
Long-term strategy submitted to UNFCCC	✗	
NDC submitted:		1st and Updated NDC as European Union
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 9 and SDG 11

Transport actions in VNRs

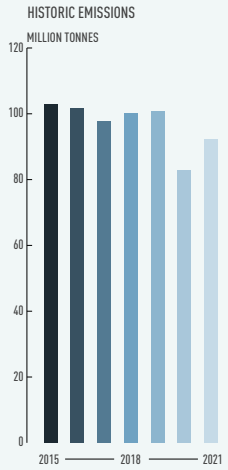
- Sustainable urban mobility plans
- Integrated public transport pricing pilot project

Transport actions in NDC

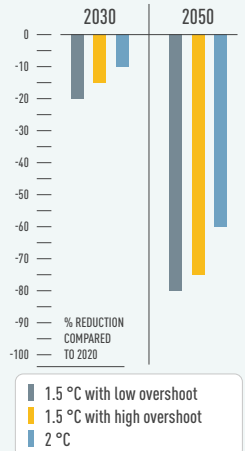
Mitigation
- Emissions trading and carbon pricing
- Vehicle efficiency standards

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓ Required for every city above 100,000 population
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	123 cities
Low emission zones (2022)	180 cities

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	✓

Targets

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

Cycling infrastructure in capital (2022)	254 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	✗
Bus rapid transit daily passenger volume (2022)	Not available
Urban rail (LRT, metro, tram) (2022)	289 km in 16 cities
Rapid Transit to Resident Ratio (2021)	11.5

Intercity Rail

Rail network (1989)	17305.2 km
Rail travel activity (2021)	27693.0 million-passenger-km
Rail freight activity (2021)	24262.0 million ton-km
High-speed rail (2021)	909 km
High-speed rail travel activity (2021)	7800 million passenger-km
National plans for passenger and freight rail expansion (2022)	✓

Target

- To invest more than EUR 190 billion from 2022 to 2031 in the improvement of rail services
- To double the share of freight transport by rail
- To increase renewable energy supply to 40% of energy needs

Road Transport

Total road vehicles in use per 1,000 people (2020)	756.3
Average annual growth rate (from 2015 to 2020)	1.30%

Aviation

Air passengers carried (2020)	7.8 million people
Air freight activity (2020):	978.8 million ton-km
Carbon-accredited airports (2022)	15 airports
of which carbon neutral:	7 airports

Shipping

Liner shipping connectivity index (2021):	76.3
Container port traffic (2020):	9 800 000 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	10% overall mandate
Renewable energy (biofuels and electricity) share in transport (2020)	7.60%
Targeted % of renewable energy	8% advanced biofuels by 2030

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2020)	109 gCO_2/km
Targeted CO_2 emissions performance	0 gCO_2/km by 2035
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	170 000
Share of electric vehicles in car sales (2022)	9.0%
ICE phase-out targets:	No but EU by 2035

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-82.6% Week of 29 March 2020
... navigation request for walking	-83.1% Week of 29 March 2020
... navigation request for driving	-86.8% Week of 29 March 2020
... driven kilometres	-90.1% Week of 5 April 2020
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	USD 0.24 billion

Examples

- Funding to support transport activities
- Incentives for the purchase of a new car
- Incentive for purchase of new bike or electric scooter for urban residents

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List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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

Russia

SLOCAT
TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Income group: Middle-income
Human Development Index (2021): 0.822
Population size (2022): 144 732 516 **+0.2%** (2015 - 2022)
Urban population share (2022): 74.5% **+1.1%** (2015 - 2022)
GDP per capita (2021): 10 248.54 **+8.57%** (2015 - 2021)

Russia has maintained transport CO_2 emissions at a constant level since 2010 and even through the COVID-19 pandemic in 2020 and 2021. While there was a clear decrease in passener activity, freight activity continued to grow from 2015 to 2020. Transport is only the third-largest CO_2-producing source in Russia and per capita.

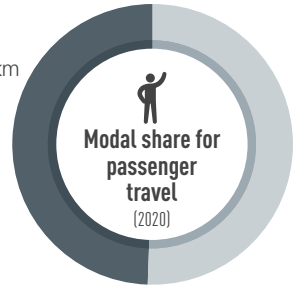
There were no new measures identified in this edition and the current ambition on transport is not sufficient enough to meet the required pathways. Russia's updated NDC lacks transport mitigation measures and their long-term strategy features many measures that still require fossil fuels.

Transport Demand Trends

Passenger travel activity

158 948 million passenger-km in 2020

-35.6% (2015 to 2020)

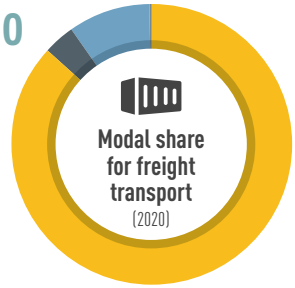


2020
50.6% Roads
49.4% Railways

Freight transport activity

2 931 100 million ton-km in 2020

+10% (2015 to 2020)



2020
86.8% Railways
3.7% Inland water
9.3% Road
0.2% Aviation

Energy consumption (2020)

90.5 million tonnes of oil equivalent

-3.6% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **8.3** (2019)

66.3% Oil Products
26.3% Natural Gas
7.4% Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

260.1 million tonnes

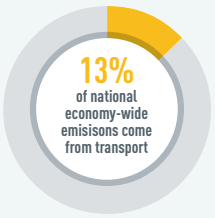
+8.1% (2015 to 2021)

Per capita transport CO_2 emissions (2021)

1.79 tonnes

Per capita transport CO_2 emissions — Global average · Income group average · Regional average · Russia average

Transport is the third-largest CO_2 producing sector in the country



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

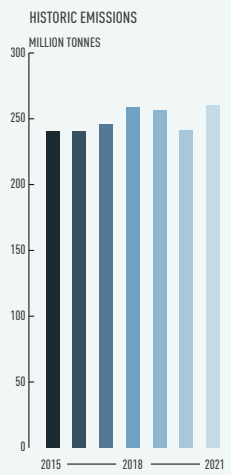
- Road safety improvements
- Infrastructure development for better logistics and passenger transport

Transport actions in NDC

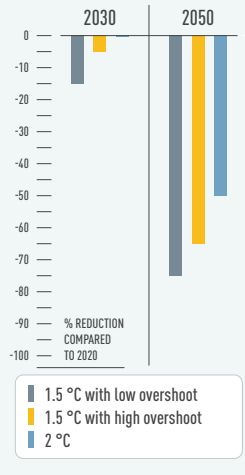
Mitigation
- Not available

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	1 city
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	850 km of bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	Not available
Bus rapid transit daily passenger volume (2022)	Not available
Urban rail (LRT, metro, tram) (2022)	Over 730 km in 59 cities
Rapid Transit to Resident Ratio (2021)	15.8

Intercity Rail

Rail network (1989)	85544.0 km
Rail travel activity (2021)	103447.0 million-passenger-km
Rail freight activity (2021)	2638562.0 million ton-km
High-speed rail (2021)	Not available km
High-speed rail travel activity (2021)	4606.6 million passenger-km
National plans for passenger and freight rail expansion (2022)	✓

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)	389.2
Average annual growth rate (from 2015 to 2020)	2%

Aviation

Air passengers carried (2020)	62 million people
Air freight activity (2020):	4314.6 million ton-km
Carbon-accredited airports (2022)	✗
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	31.7
Container port traffic (2020):	4 871 919 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	7.40%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 5
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Good
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-54.3% Week of 5 April 2020
... navigation request for walking	-60.8% Week of 5 April 2020
... navigation request for driving	-50.0% Week of 5 April 2020
... driven kilometres	-63.60% Week of 8 May 2022
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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List of acronyms

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HDV	Heavy-duty vehicle
ICE	Internal combustion engine
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LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

United Kingdom

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

The UK recorded a decrease in transport CO_2 emissions from 2017 to 2019 before the COVID-19 pandemic had significant impacts in 2020 and 2021. As of 2021, transport is the largest CO_2-producing sector in the country.

As shown in the previous edition, the UK continues to accelerate ambition on promoting public transport, walking, and cycling in cities, as well as inter-city railway services. New investment strategies and integrated plans were developed for these modes. The phase out of fossil fuel cars was also brought forward from 2040 to 2035 (and 2030 according to some sources). One in four new vehicles sold in 2022 was battery-electric.

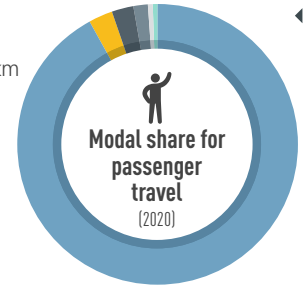
- **Income group:** High-income
- **Human Development Index (2021):** 0.929
- **Population size (2022):** 67 394 305 **+3.7%** (2015 - 2022)
- **Urban population share (2022):** 85.2% **+6.3%** (2015 - 2022)
- **GDP per capita (2021):** 46 318.35 **+1.84%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

549 billion passenger-km in 2020

-31.2% (2015 to 2020)



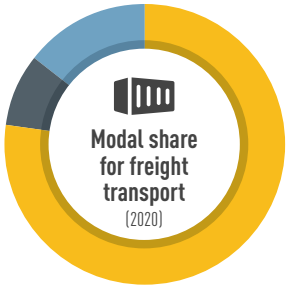
2020

92%	Cars, vans and taxis
2.6%	Buses and coaches
0.6%	Motorcycles
1.6%	Pedal cycles
2.9%	Rail
0.4%	Air

Freight transport activity

176 billion ton-km in 2020

-0.6% (2015 to 2020)



2020

77.3%	Road
8.5%	Rail
14.2%	Inland Waterways

Energy consumption (2020)

33.1 million tonnes of oil equivalent

-18.3% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **6.4** (2019)

Transport Emission Trends

Transport CO_2 emissions (2021)

95.8 million tonnes

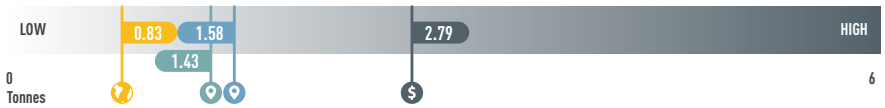
-19.4% (2015 to 2021)

Per capita transport CO_2 emissions (2021)

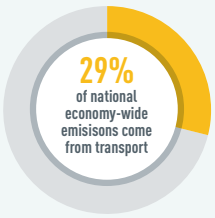
1.43 tonnes

Per capita transport CO_2 emissions

Global average · Income group average · Regional average · United Kingdom average



Transport is the largest CO_2 producing sector in the country



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 3, SDG 7, SDG 8, SDG 9 and SDG 13

Transport actions in VNRs

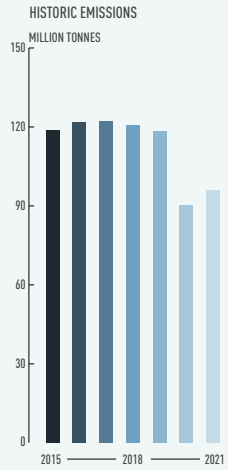
- Zero-emission vehicle
- Renewable energy for transport
- Upgrading transport infrastructure
- EV charging

Transport actions in NDC

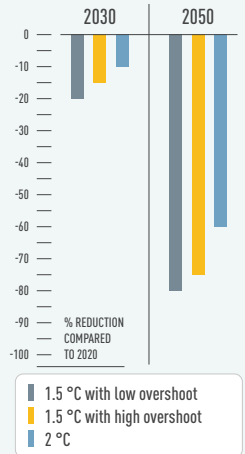
Mitigation
- Not available

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	103 cities
Low emission zones (2022)	21 cities

Walking

National walking strategies (2022)	✓

Targets

- 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

National walking strategies (2022)	✓

Targets

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

Cycling infrastructure in capital (2022)	2 000 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	135 km in 7 cities
Bus rapid transit daily passenger volume (2022)	101 559
Urban rail (LRT, metro, tram) (2022)	Over 818 km in 10 cities
Rapid Transit to Resident Ratio (2021)	32.8

Intercity Rail

Rail network (2021)	16178.6
Rail travel activity (2020)	24188.47
Rail freight activity (2020)	15212.1
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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)	632.3
Average annual growth rate (from 2015 to 2020)	2.10%

Aviation

Air passengers carried (2020)	31.0 million people
Air freight activity (2020):	3675.2 million ton-km
Carbon-accredited airports (2022)	22 airports
of which carbon neutral:	8 airports

Shipping

Liner shipping connectivity index (2021):	90.0
Container port traffic (2020):	869 2260 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	7% Biodiesel, 10% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	6%
Targeted % of renewable energy	3.1% advanced biofuels by 2032

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	550 000
Share of electric vehicles in car sales (2022)	23%
ICE phase-out targets:	2035

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-72.1% Week of 5 April 2020
... navigation request for walking	-61.7% Week of 29 March 2020
... navigation request for driving	-66.9% Week of 5 April 2020
... driven kilometres	-75.4% Week of 12 April 2020
Traditional transport infrastructure investment:	USD 132.65 billion
Clean transport infrastructure investment:	USD 22.79 billion

Examples

- Support for infrastructure and regulatory changes to accommodate shift toward active transport
- Boost for the green road freight
- Transport network support
- Buses and trams safety and services fund

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VNR	Voluntary national review of the Sustainable Development Goals
WLTP	Worldwide harmonised light vehicles test procedure

Argentina

SLOCAT
TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Transport CO_2 emissions in **Argentina** increased nearly 5% from 2015 to 2021. In 2021, the country recorded per capita transport CO_2 emissions above the regional and global average, at 1.07 tons. Transport is the largest CO_2 producing sector in the country, responsible for 26% of national CO_2 emissions. Biofuels represented 6% of Argentina's transport energy consumption in 2020.

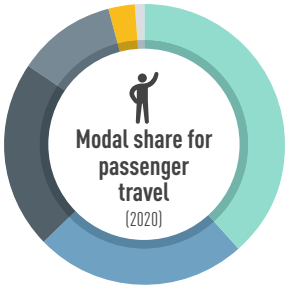
Since the last edition of Argentina's transport fact sheet, the country submitted a long-term strategy to the UNFCCC and a new VNR, both including transport references. The country also adopted a National Sustainable Transport Plan, focused on modernising the public transport system and promoting an energy transition. There are also plans to expand the coverage of passenger and freight rail service. However, no walking or cycling strategies were identified on the national level.

Income group: Middle-income
Human Development Index (2021): 0.842
Population size (2022): 45 389 937 **+5.5%** (2015 - 2022)
Urban population share (2022): 94.2% **+7.7%** (2015 - 2022)
GDP per capita (2021): 12 567.80 **-9.05%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

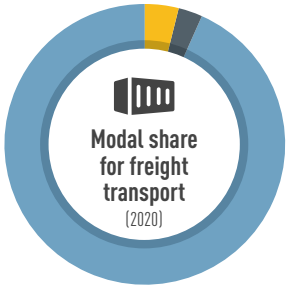
Not available



2020
38.6% Car
21.6% Public transport
24.5% Walking
11.5% Cycling
3% Taxi
1% Other

Freight transport activity

549 million ton-km in 2019



2020
3.9% Railways
3% Inland water
93% Road

Energy consumption (2020)

13.86 million tonnes of oil equivalent

-20.6% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **7.8** (2019)

77.8% Oil Products
16% Natural Gas
6% Biofuels
0.2% Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

48.5 million tonnes

+4.7% (2015 to 2020)

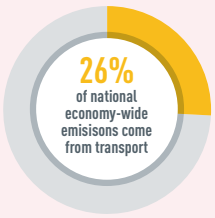
Per capita transport CO_2 emissions (2021)

1.07 tonnes

Per capita transport CO_2 emissions

Global average · Income group average · Regional average · Argentina average

Transport is the largest CO_2 producing sector in the country



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 actions in VNRs

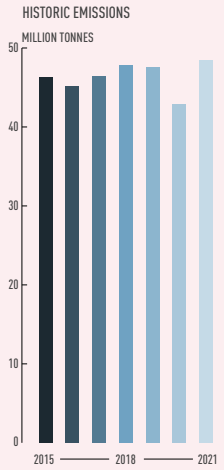
- Road safety measures
- Hydrogen
- Transport energy efficency
- Renewal of road and rail infrastructure for better logistics and cross-border activities
- Promotion of vehicles adapted for people with disabilities and reduced mobility
- Intelligent Transportation Program

Transport actions in NDC

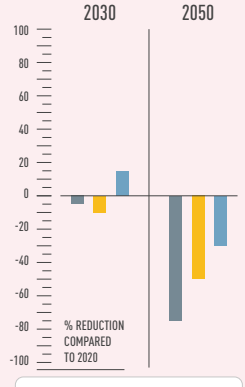
Mitigation · Adaptation

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

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	2 cities
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	300 km of separated bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	122 km in 5 cities
Bus rapid transit daily passenger volume (2022)	1 563 000
Urban rail (LRT, metro, tram) (2022)	74 km in 2 cities
Rapid Transit to Resident Ratio (2021)	6.1

Intercity Rail

Rail network (2019)	17 866 km
Rail travel activity (2017)	8 360.8 million-passenger-km
Rail freight activity (2017)	8 377 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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)	311.4
Average annual growth rate (from 2015 to 2020)	0.40%

Aviation

Air passengers carried (2020)	3.7 million people
Air freight activity (2020):	81.1 million ton-km
Carbon-accredited airports (2022)	1 airport
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	36
Container port traffic (2020):	1 990 008 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	8% Biodiesel, 12% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	6.20%
Targeted % of renewable energy	Mandate cut to 5% biodiesel and 6% ethanol

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 5
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-79.1% Week of 29 March 2020
... navigation request for walking	-90.3% Week of 29 March 2020
... navigation request for driving	-87.3% Week of 29 March 2020
... driven kilometres	-93.1% Week of 29 March 2020
Traditional transport infrastructure investment:	USD 1.19 billion
Clean transport infrastructure investment:	USD 0.00282 billion

Examples

- Road work infrastructure investment in Buenos Aires
- Grant to shipyard
- Infrastructure investment

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List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Transport is the largest CO_2 emitting sector in **Brazil**, contributing 38% of the total emissions in the country. The country however registered a 6% decrease in transport CO_2 emissions between 2015 and 2021 and per capita transport CO_2 emissions in 2021 were close to the regional average, at 0.88 tons.

At the national level, transport policy is focused on supporting the use of biofuels in transport. Biofuels represented nearly a quarter of Brazil's transport energy consumption in 2020. The country also has plans to expand the rail network.Rio de Janeiro approved the creation of the first LEZ in Brazil, with the goal of having it partially operational by 2024 and fully operational by 2030.

Income group: Middle-income

Human Development Index (2021): 0.754

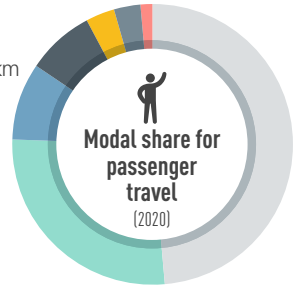
Population size (2022): 214 824 774	+5.1% (2015 - 2022)
Urban population share (2022): 88.3%	+7.4% (2015 - 2022)
GDP per capita (2021): 8 557.83	-2.97% (2015 - 2021)

Transport Demand Trends

Passenger travel activity

17 726 million passenger-km in 2020

-48.3% (2015 to 2020)

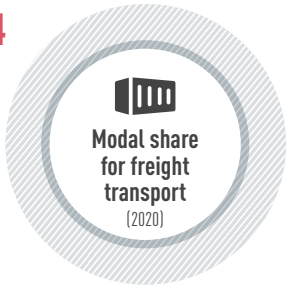


2020	
48.7%	Car
7.7%	Bus
9%	Motorcycle
2.9%	Rail
3.5%	Subway
27%	Walking
1.3%	Cycling

Freight transport activity

397 964 million ton-km for rail and inland water in 2020

+13.8% (2015 to 2020)

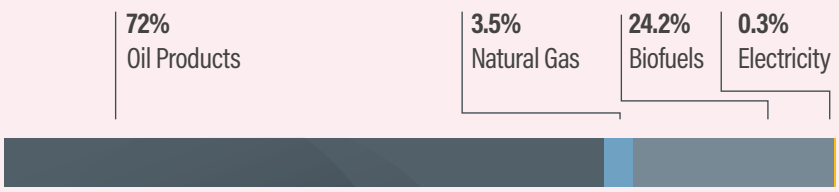


Energy consumption (2020)

80.6 million tonnes of oil equivalent

-4.8% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **7.5** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

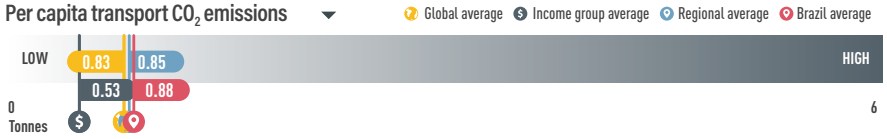
187.8 million tonnes

-6.1% (2015 to 2021)

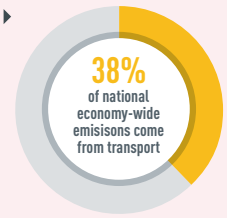
Per capita transport CO_2 emissions (2021)

0.88 tonnes

Per capita transport CO_2 emissions



Transport is the largest CO_2 producing sector in the country



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	✕ 2017 VNR with no transport linkages

Transport actions in VNRs

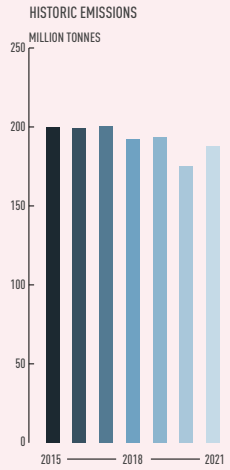
Not available

Transport actions in NDC

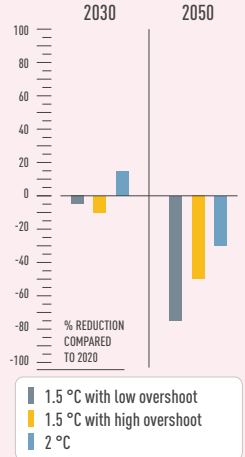
Mitigation: Not available

Adaptation: Adaptation and resilience of transport systems

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	343 cities
Low emission zones (2022)	Yes (First LEZ approved in 2022 for Rio de Janeiro, in preparation for 2024)

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	✓

Targets

- 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.

Cycling infrastructure in capital (2022)	636 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	883 km in 26 cities
Bus rapid transit daily passenger volume (2022)	10 752 147
Urban rail (LRT, metro, tram) (2022)	330 km in 9 cities
Rapid Transit to Resident Ratio (2021)	11.7

Intercity Rail

Rail network (2007)	32 622 km
Rail travel activity (2019)	16 486.4 million-passenger-km
Rail freight activity (2007)	9 393.5 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

Target

- 3,300km and 10 new lines worth USD10.16 billion to be built

Road Transport

Total road vehicles in use per 1,000 people (2020)	214.5
Average annual growth rate (from 2015 to 2020)	1.40%

Aviation

Air passengers carried (2020)	45.0 million people
Air freight activity (2020):	1 209.7 million ton-km
Carbon-accredited airports (2022)	5 airports
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	39.7
Container port traffic (2020):	10 376 571 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	10% Biodiesel, 27% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	24.40%
Targeted % of renewable energy	30% biodiesel by 2030, 10% biokerosene in aviation by 2030

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 5
CO_2 emissions performance for passenger cars (2017)	138.3 gCO_2/km
Targeted CO_2 emissions performance	127.8 gCO_2/km by 2022
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	13 000
Share of electric vehicles in car sales (2022)	1.0%
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-61.0% Week of 29 March 2020
... navigation request for walking	-71.9% Week of 29 March 2020
... navigation request for driving	-63.2% Week of 29 March 2020
... driven kilometres	-67.7% Week of 29 March 2020
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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Data in this fact sheet is based on the Energy and Transport Starter Data Kits by the Climate Compatible Growth (CCG) programme. SLOCAT is contributing transport data to the Energy and Transport Starter Data Kits; synthesising available data on passenger and freight activity, energy intensity, load factors and vehicle fleets for Africa, Asia and Latin America. For more information, please visit climatecompatiblegrowth.com/starter-kits/.

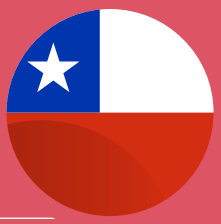
List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

Chile

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT



A third of **Chile's** CO_2 emissions come from the transport sector, with transport being the second-largest CO_2 producing sector in the country. Transport CO_2 emissions in Chile increased more than 5% from 2015 to 2021. In 2021, the country recorded per capita transport CO_2 emissions well above the regional and global average, at 1.37 tons.

Since the last edition of Chile's transport fact sheet, the country launched its National Sustainable Mobility Strategy, establishing a vision and objectives for urban mobility by 2050 and recommending measures for cities to generate their own locally aligned strategies. There are also plans to expand the coverage of passenger and freight rail service. However, no walking or cycling strategies were identified on the national level.

Income group: High-income

Human Development Index (2021): 0.855

Population size (2022): 19 592 428 **+10.2%** (2015 - 2022)

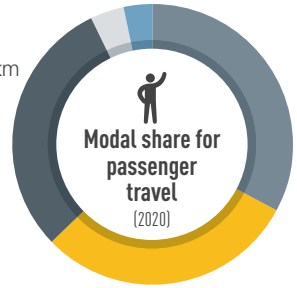
Urban population share (2022): 84.1% **+6.1%** (2015 - 2022)

GDP per capita (2021): 14 188.19 **+4.02%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

517
million passenger-km for rail in 2020

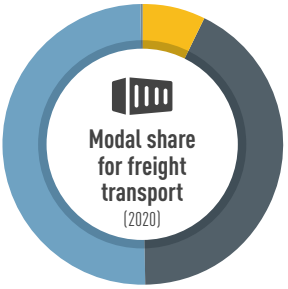


2020

33%	Private car
30%	Public transport
3.3%	Cycling
30%	Walking
3.7%	Other

Freight transport activity

3 585
million ton-km for rail in 2020



2020

7.3%	Railways
42.6%	Maritime
50%	Road
0.1%	Aviation

Energy consumption (2020)

8.53
million tonnes of oil equivalent

+0.8% (2015 to 2021)

Average light duty fuel economy consumption Lge/100 km (WLTP) **7.9** (2019)

Transport Emission Trends

Transport CO_2 emissions (2021)

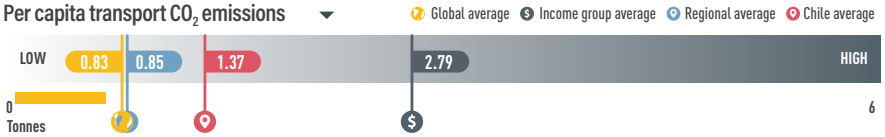
26.6 million tonnes

+5.6% (2015 to 2021)

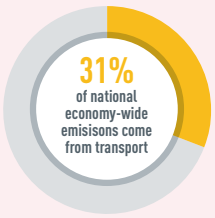
Per capita transport CO_2 emissions (2021)

1.37 tonnes

Per capita transport CO_2 emissions



Transport is the second-largest CO_2 producing sector in the country



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 9 and SDG 13

Transport actions in VNRs

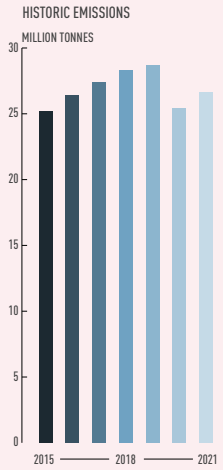
- Green bonds for transport
- Maritime transport legislation

Transport actions in NDC

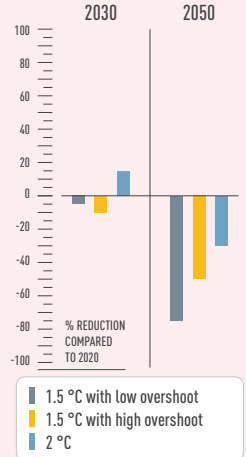
Mitigation
- Cycling measures
- General e-mobility
- General public transport improvement
- Hydrogen
- Use of renewable energy

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	57 cities
Low emission zones (2022)	✓

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	Not available
Cycling infrastructure in capital (2022)	430 km of bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	105 km in 2 cities
Bus rapid transit daily passenger volume (2022)	476 800
Urban rail (LRT, metro, tram) (2022)	180 km in 2 cities
Rapid Transit to Resident Ratio (2021)	29.5

Intercity Rail

Rail network (2021)	2396 km
Rail travel activity (2021)	738 million-passenger-km
Rail freight activity (2020)	3585.5 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

Target

- By 2030, connect Valparaíso and Santiago the Chile with a 1.5 hour long train for passenger and freight.

Road Transport

Total road vehicles in use per 1,000 people (2020)	246.1
Average annual growth rate (from 2015 to 2020)	1.30%

Aviation

Air passengers carried (2020)	8.0 million people
Air freight activity (2020):	1458.4 million ton-km
Carbon-accredited airports (2022)	1 airport
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	36.3
Container port traffic (2020):	4 192 000 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	1.30%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 5
CO_2 emissions performance for passenger cars (2020)	156.6 gCO_2/km
Targeted CO_2 emissions performance	80.7 gCO_2/km by 2030
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	1 700
Share of electric vehicles in car sales (2022)	0.5%
ICE phase-out targets:	Yes, 2035

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-67.3% Week of 24 May 2020
... navigation request for walking	-80.1% Week of 5 April 2020
... navigation request for driving	-71.0% Week of 29 March 2020
... driven kilometres	-77.9% Week of 12 April 2020
Traditional transport infrastructure investment:	USD 0.078 billion
Clean transport infrastructure investment:	Not available

Examples

- Green transport

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VNR	Voluntary national review of the Sustainable Development Goals
WLTP	Worldwide harmonised light vehicles test procedure

Colombia

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Transport CO_2 emissions in **Colombia** increased nearly 16% from 2015 to 2021. Transport is the largest CO2-emitting sector in the country, responsible for 41% of national CO_2 emissions. In 2021, the country recorded per capita transport CO_2 emissions of 0.62 tons, below the regional average. Biofuels represented 7% of Colombia's transport energy consumption in 2020.

Since the last edition of Colombia's transport fact sheet, the country submitted a new VNR including transport linkages to nine SDGs. The country also adopted the National Strategy of Active Mobility with a Gender and Differential Approach, which provides guidelines for local governments to promote walking and cycling, consider the needs of people with reduced mobility and disabilities, and promote gender equality. At the local level, Medellin implemented the first LEZ in the country.

Income group: Middle-income

Human Development Index (2021): 0.752

Population size (2022): 51 788 827 **+10.4%** (2015 - 2022)

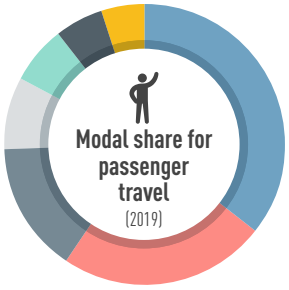
Urban population share (2022): 80.7% **+8.6%** (2015 - 2022)

GDP per capita (2021): 6 445.57 **+2.99%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

Not available

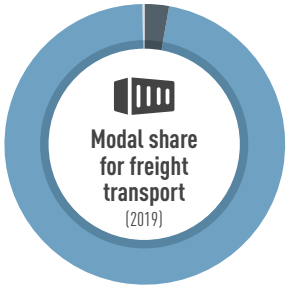


2019

14.9%	Cars
5.5%	Motorcycles
35.8%	Public transport
4.9%	Taxi
23.9%	Walking
6.6%	Cycling
8.4%	Other

Freight transport activity

Not available



2019

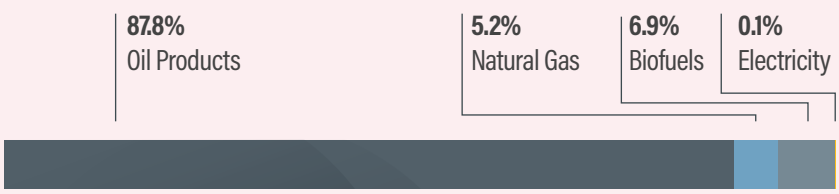
0.04%	Railways
3%	Inland water
96.9%	Road
0.07%	Aviation

Energy consumption (2020)

9.8 million tonnes of oil equivalent

-2.1% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) (n/a)



Transport Emission Trends

Transport CO_2 emissions (2021)

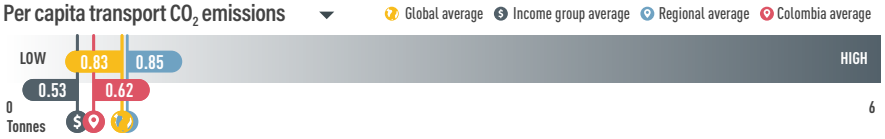
31.9 million tonnes

+15.7% (2015 to 2021)

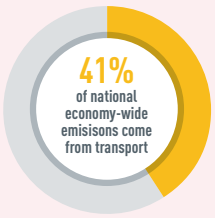
Per capita transport CO_2 emissions (2021)

0.62 tonnes

Per capita transport CO_2 emissions



Transport is the largest CO_2 producing sector in the country



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	✓ 2021 VNR with transport linkages to SDG 3, SDG 4, SDG 7, SDG 8, SDG 9, SDG 10, SDG 11, SDG 12 and SDG 13

Transport actions in VNRs

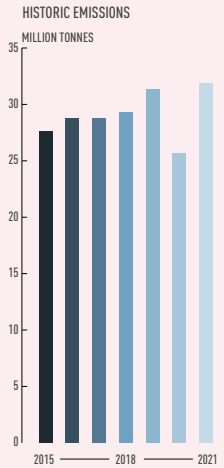
- Vehicle air pollution emission standards
- Electric bus promotion
- Increase public transport mode share

Transport actions in NDC

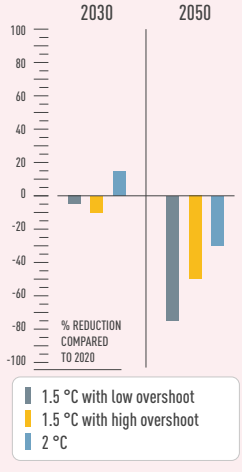
Mitigation Adaptation

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

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	9 cities
Low emission zones (2022)	1 city

Walking

National walking strategies (2022)	Yes, but combined with cycling as active mobility

Targets

- Encourage active mobility with a gender and differential approach in line with the challenges of climate change and air quality.

Cycling

National walking strategies (2022)	Yes, but combined with walking as active mobility

Targets

- Same as for walking

Cycling infrastructure in capital (2022)	590 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	225 km in 7 cities
Bus rapid transit daily passenger volume (2022)	3 071 541
Urban rail (LRT, metro, tram) (2022)	31 km in 1 city
Rapid Transit to Resident Ratio (2021)	10.2

Intercity Rail

Rail network (1994)	1915 km
Rail travel activity (1990)	141 million-passenger-km
Rail freight activity (1994)	2216 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	Yes, for passenger rail

Target

- First metro line in Bogotá

Road Transport

Total road vehicles in use per 1,000 people (2020)	111.1
Average annual growth rate (from 2015 to 2020)	1.20%

Aviation

Air passengers carried (2020)	12 million people
Air freight activity (2020):	1496.6 million ton-km
Carbon-accredited airports (2022)	1 airport
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	49.2
Container port traffic (2020):	4 480 900 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	10% Biodiesel, 6% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	7%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 2
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	Not available

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-80.7% Week of 12 April 2020
... navigation request for walking	-68.90% Week of 29 March 2020
... navigation request for driving	-75.10% Week of 29 March 2020
... driven kilometres	-86.4% Week of 12 April 2020
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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List of acronyms

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ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Mexico had the second highest transport CO_2 emissions among countries in Latin America and the Caribbean in 2021. Transport CO_2 emissions declined 20% from 2019 to 2021. The levels of road vehicles in use in Mexico are higher than the regional levels and the CO_2 emmissions performance for passenger cars is also worse than compared to other countries. However, there is a general scarcity of statistical data about passenger and freight travel activity.

The country is in the process of expanding sustainable transport policies. The first sustainable urban mobility plans are being prepared. There are rail development plans to increase rail's share in land freight activity from 26.4% in 2021 to 40% within the next 50 years.

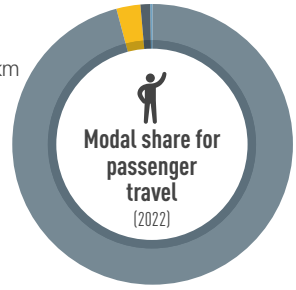
- **Income group:** Middle-income
- **Human Development Index (2021):** 0.758
- **Population size (2022):** 127 024 134 — **+6.3%** (2015 - 2022)
- **Urban population share (2022):** 87.6% — **+11.5%** (2015 - 2022)
- **GDP per capita (2021):** 9 539.06 — **-2.75%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

466 million passenger-km for rail in 2020

-67% (2015 to 2021)

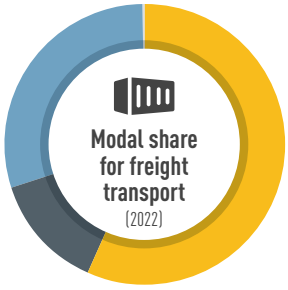


2020
- 95.9% Road
- 1.1% Rail
- 0.2% Water
- 2.8% Air

Freight transport activity

342 787 million ton-km for roads and rail in 2020

+4.6% (2015 to 2021)



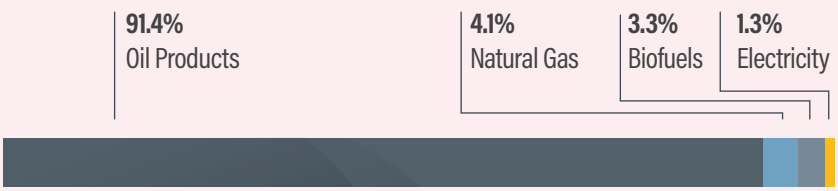
2020
- 56.8% Road
- 13.3% Rail
- 29.8% Water
- 0.1% Air

Energy consumption (2020)

2 889 million tonnes of oil equivalent

+16% (2015 to 2021)

Average light duty fuel economy consumption Lge/100 km (WLTP) **7.6** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

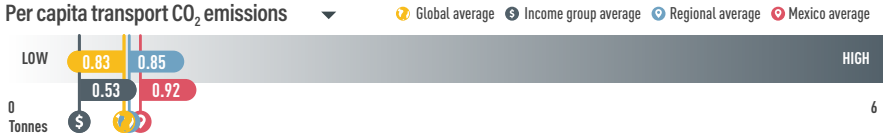
116.5 million tonnes

-22.6% (2015 to 2021)

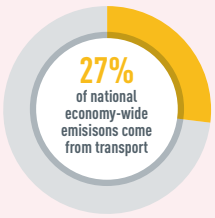
Per capita transport CO_2 emissions (2021)

0.92 tonnes

Per capita transport CO_2 emissions



Transport is the largest CO_2 producing sector in the country



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 1, SDG 8, SDG 9, SDG 10 and SDG 11

Transport actions in VNRs

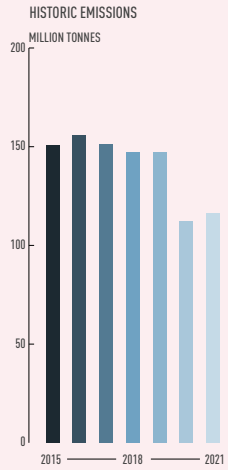
- Railway modernisation and expansion

Transport actions in NDC

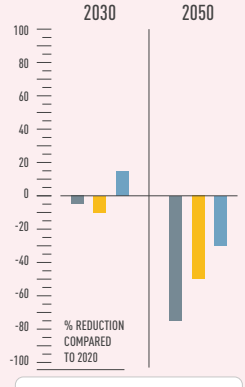
Mitigation Adaptation

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

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	In preparation for 2 cities (Guadalajara and Puebla)
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Only combined with cycling on subnational level as active mobility strategies

Cycling

National walking strategies (2022)	Only combined with walking on subnational level as active mobility strategies
Cycling infrastructure in capital (2022)	380.7 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	416 km in 12 cities
Bus rapid transit daily passenger volume (2022)	2 659 137
Urban rail (LRT, metro, tram) (2022)	289 km in 3 cities
Rapid Transit to Resident Ratio (2021)	11.3

Intercity Rail

Rail network (1994)	20477 km
Rail travel activity (2021)	466 million-passenger-km
Rail freight activity (2021)	92437 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

Target

- 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)	350
Average annual growth rate (from 2015 to 2020)	3.8%

Aviation

Air passengers carried (2020)	34.0 million people
Air freight activity (2020):	732.8 million ton-km
Carbon-accredited airports (2022)	20 airports
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	47.3
Container port traffic (2020):	6 385 629 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	10% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	4.50%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 4
CO_2 emissions performance for passenger cars (2020)	211.8 gCO_2/km
Targeted CO_2 emissions performance	146.7 gCO_2/km
Regulatory environment ranking on used vehicles by UNEP (2021)	✗
Electric vehicles (2022)	8 800
Share of electric vehicles in car sales (2022)	0.90%
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-60.0% Week of 3 May 2020
... navigation request for walking	-68.79% Week of 12 April 2020
... navigation request for driving	-61.98% Week of 12 April 2020
... driven kilometres	-67.3% Week of 12 April 2020
Traditional transport infrastructure investment:	USD 13.3 billion
Clean transport infrastructure investment:	Not available

Examples

- Cycling network improvements

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List of acronyms

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HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Transport is the largest CO_2 emitter in **Peru**, contributing 43% of the total emissions in the country. Transport CO_2 emissions increased nearly 13% from 2015 to 2021. In 2021, the country recorded per capita transport CO_2 emissions below the regional average, at 0.71 tons. Biofuels represented 4% of Peru's transport energy consumption in 2020. There is a general scarcity of statistical data about passenger and freight travel activity.

Since the last edition of Peru's transport fact sheet, and with support from international organizations, the country moved forward with the implementation of its National Urban Transport Policy and the development of Sustainable Urban Mobility Plans in several cities. The country also announced plans to improve the country's connectivity by expanding the rail network.

Income group: Middle-income

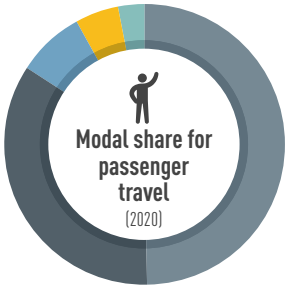
Human Development Index (2021): 0.762

Population size (2022): 33 911 712	**+11.1%** (2015 - 2022)
Urban population share (2022): 79%	**+10.4%** (2015 - 2022)
GDP per capita (2021): 6 474.79	**+4.11%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

Not available

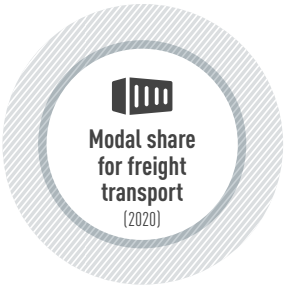


2020

49.9%	Cars
34.3%	Walking
7.9%	Motorcycles
5.1%	Bus
2.8%	Cycling

Freight transport activity

Not available



Energy consumption (2020)

7.04 million tonnes of oil equivalent

-5.6% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) (n/a)

88.8% Oil Products	**7%** Natural Gas	**4.1%** Biofuels	**0.1%** Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

23.9 million tonnes

+13% (2015 to 2021)

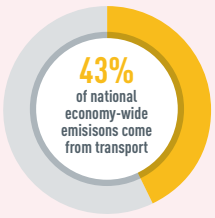
Per capita transport CO_2 emissions (2021)

0.71 tonnes

Per capita transport CO_2 emissions

Global average · Income group average · Regional average · Peru average

Transport is the largest CO_2 producing sector in the country



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 8, SDG 9, SDG 11 and SDG 13

Transport actions in VNRs

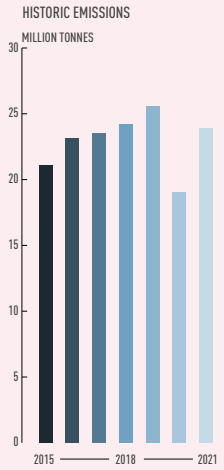
- Promote electric mobility
- Develop cycling infrastructure
- Road infrastructure expansion

Transport actions in NDC

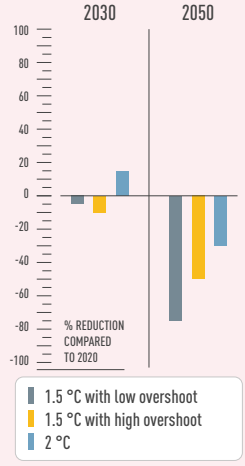
Mitigation: Not available

Adaptation: Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	5 cities
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	✓

Targets

- To promote the safe use of the bicycle

Cycling infrastructure in capital (2022)	294 km

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	26 km in 1 city
Bus rapid transit daily passenger volume (2022)	704 803
Urban rail (LRT, metro, tram) (2022)	34 km in 1 city
Rapid Transit to Resident Ratio (2021)	3.9

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)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

Target

- By 2030, connect the country with 4 railway lines

Road Transport

Total road vehicles in use per 1,000 people (2020)	88.4
Average annual growth rate (from 2015 to 2020)	3.80%

Aviation

Air passengers carried (2020)	5.7 million people
Air freight activity (2020):	96.5 million ton-km
Carbon-accredited airports (2022)	3 airports
of which carbon neutral:	2 airports

Shipping

Liner shipping connectivity index (2021):	40.4
Container port traffic (2020):	2 601 411 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	5% Biodiesel, 7.8% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	4.30%
Targeted % of renewable energy	5% biodiesel by 2024

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Good
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-87.40% Week of 12 April 2020
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	USD 6.95 billion
Clean transport infrastructure investment:	USD 0.0011 billion

Examples

- Road maintenance
- Sanitation and road infrastructure projects
- Infrastructure funding to native communities
- Funds for bicycle lanes

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Venezuela

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Transport CO_2 emissions in **Venezuela** nearly halved from 2015 to 2021. In 2021, the country recorded per capita transport CO_2 emissions of 0.90 tons, close to the regional average. Transport is completely fossil fuel-based and responsible for 24% of national CO_2 emissions. There is no information on passenger and freight travel activity.

Venezuela submitted the 1st and updated NDC. Although the NDC highlights transport for GHG mitigation, there is no information on national urban mobility policies, sustainable urban mobility plans, nor strategies in support of walking and vehicle electrification. The country also submitted a VNR in 2016, without any reference to transport.

Income group: Unclassified

Human Development Index (2021): 0.691

Population size (2022): 28 047 658 -7.6% (2015 - 2022)

Urban population share (2022): –

GDP per capita (2021): –

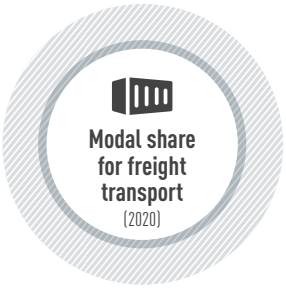
Transport Demand Trends

Passenger travel activity

Not available

Freight transport activity

Not available



Energy consumption (2020)

7.97 million tonnes of oil equivalent

-49.8% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) — (n/a)

99.9% Oil Products

0.1% Natural Gas

Transport Emission Trends

Transport CO_2 emissions (2021)

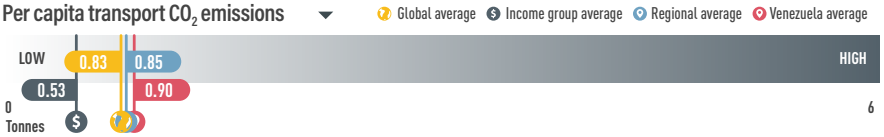
25.4 million tonnes

-45.6% (2015 to 2021)

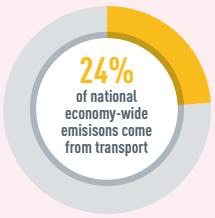
Per capita transport CO_2 emissions (2021)

0.90 tonnes

Per capita transport CO_2 emissions



Transport is the third-largest CO_2 producing sector in the country



Transport Decarbonisation Pathways

Transport strategy identifies climate change	Not available
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 VNRs

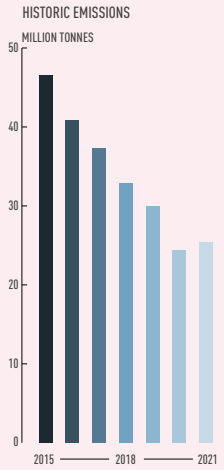
- Not available

Transport actions in NDC

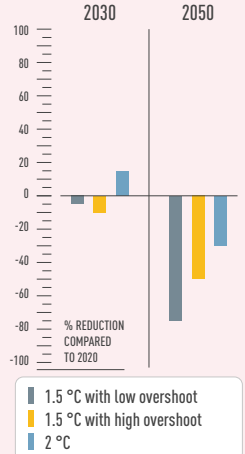
Mitigation

- 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

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not available
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	Not available
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Not available

Cycling

National walking strategies (2022)	✓

Targets

- To encourage, protect and regulate urban cycling throughout the country

Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	42 km in 3 cities
Bus rapid transit daily passenger volume (2022)	240 778
Urban rail (LRT, metro, tram) (2022)	78 km in 3 cities
Rapid Transit to Resident Ratio (2021)	3.1

Intercity Rail

Rail network (2006)	336 km
Rail travel activity (1995)	12 million-passenger-km
Rail freight activity (2006)	81.1 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	Yes, for passenger rail

Target

- Investment of USD 150 million for the expansion and rehabilitation of the underground transport system

Road Transport

Total road vehicles in use per 1,000 people (2020)	148.6
Average annual growth rate (from 2015 to 2020)	-1.30%

Aviation

Air passengers carried (2020)	0.3 million people
Air freight activity (2020):	2.9 million ton-km
Carbon-accredited airports (2022)	2 airports
of which carbon neutral:	✗

Shipping

Liner shipping connectivity index (2021):	7.4
Container port traffic (2020):	168 757 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	Not available
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Not available
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-65.6% Week of 12 April 2020
... navigation request for walking	Not available
... navigation request for driving	Not available
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

This fact sheet is part of the SLOCAT Transport, Climate and Sustainability Global Status Report 3rd Edition. Information shown in this country fact sheet is based on desk research and might not be complete or not show the most recent status. The data has been collected to the best knowledge and availability. If no information was able to be retrieved, then 'Not available' is being indicated. The content does not represent the opinion of the SLOCAT Partnership on Sustainable, Low Carbon Transport. For more information, please visit tcc-gsr.com

List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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

Canada

SLOCAT
TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Canada's constant transport emission growth since 2010 has been disrupted by the COVID-19 pandemic in 2020 and 2021, resulting in a 16% drop in transport CO_2 emissions. It is unclear how strong the impact on passenger and freight is due to a lack of recent data. The strongest impact was noticed for driven kilometres, which was 71% in April 2020 below pre-pandemic levels.

The country brought forward their ICE sales ban from 2040 to 2035. The updated NDC outlines various actions in support of this target. The electric vehicle stock also doubled since the previous edition of this report. In addition, the first national active transport strategy was released in 2021. Nevertheless, Canada records high motorisation levels and a lack of public transport due to low levels of urban rail and bus rapid transit.

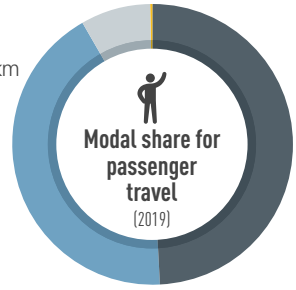
- **Income group:** High-income
- **Human Development Index (2021):** 0.936
- **Population size (2022):** 38 290 846 **+7.7%** (2015 - 2022)
- **Urban population share (2022):** 81.6% **+7%** (2015 - 2022)
- **GDP per capita (2021):** 44 207.86 **+1%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

538 800 million passenger-km in 2009

+6.5% (2000 to 2009)



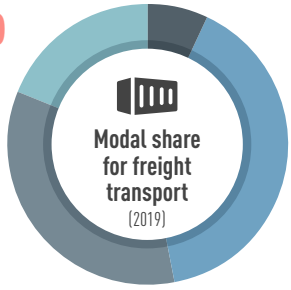
2020

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

Freight transport activity

727 900 million ton-km in 2011

+19% (2000to 2020)



2020

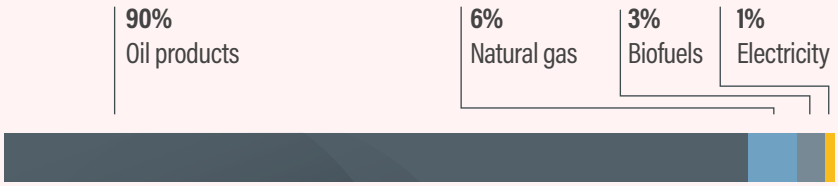
0.1%	Air
7%	Water Transport
40%	Pipeline
34.1%	Rail
18.7%	Road

Energy consumption (2020)

56.5 million tonnes of oil equivalent

-11.3% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **8.6** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

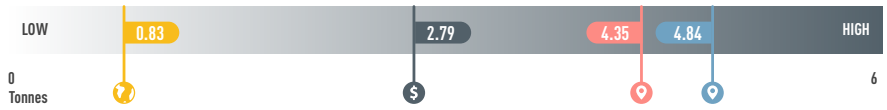
165.3 million tonnes

-8.1% (2015 to 2021)

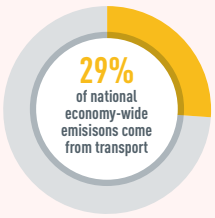
Per capita transport CO_2 emissions (2021)

4.35 tonnes

Per capita transport CO_2 emissions — Global average · Income group average · Regional average · Canada average



Transport is the second-largest CO_2 producing sector in the country



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 7 and SDG 8

Transport actions in VNRs

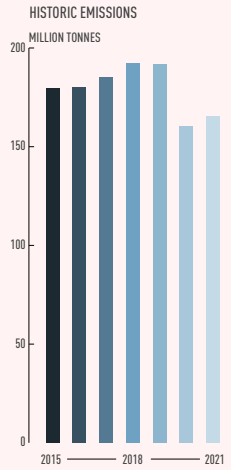
- Urban mobility development
- Infrastructure development

Transport actions in NDC

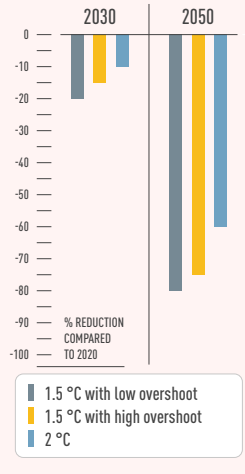
Mitigation

- EV charging infrastructure
- EV purchase incentives
- Financial instruments to support decarbonisation
- General active mobility
- General public transport improvement
- ICE (gasoline and diesel) bans
- Vehicle air pollution emission standards

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not available
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	Not available
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Only combined with cycling as active mobility strategy

Targets

- Improve community connections and promote social equity amongst vulnerable Canadians
- Make travel by active transportation easier, more convenient and enjoyable, and enhance user safety and security
- Encourage people to choose active transportation over personal vehicles (including supporting walking and cycling to access transit)
- 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 transportation modes to businesses

Cycling

National walking strategies (2022)	Only combined with walking as active mobility strategy

Targets

- See above

Cycling infrastructure in capital (2022)	236 km of bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	306 km in 7 cities
Bus rapid transit daily passenger volume (2022)	503 407
Urban rail (LRT, metro, tram) (2022)	242 km in 5 cities
Rapid Transit to Resident Ratio (2021)	19.6

Intercity Rail

Rail network (2021)	48 149.9 km
Rail travel activity (2021)	536.0 million-passenger-km
Rail freight activity (2021)	430 170 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

Target

- Improve rail system efficiency, long-term investments and better access

Road Transport

Total road vehicles in use per 1,000 people (2020)	707
Average annual growth rate (from 2015 to 2020)	2.90%

Aviation

Air passengers carried (2020)	28 million people
Air freight activity (2020):	2306.2 million ton-km
Carbon-accredited airports (2022)	20 airports
of which carbon neutral:	2 airports

Shipping

Liner shipping connectivity index (2021):	48.8
Container port traffic (2022):	6 196 600 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	2% Biodiesel, 5% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	4.60%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2021)	112.1 gCO_2/km
Targeted CO_2 emissions performance	76.3 gCO_2/km by 2026
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	250 000
Share of electric vehicles in car sales (2022)	9.4%
ICE phase-out targets:	2035

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-68.3% Week of 12 April 2020
... navigation request for walking	-53.8% Week of 5 April 2020
... navigation request for driving	-54.3% Week of 5 April 2020
... driven kilometres	-71.0% Week of 12 April 2020
Traditional transport infrastructure investment:	USD 1.68 billion
Clean transport infrastructure investment:	USD 1.36 billion

Examples

- Energy Efficient Transportation Support
- Support for charging and refueling stations
- Local public transport support (Oakville)
- Infrastructure investments

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List of acronyms

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HDV	Heavy-duty vehicle
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LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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

SLOCAT
TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

The US remains to be the largest national transport CO_2 emitter in the world in terms of absolute and per capita emissions. Transport is the largest CO_2-emitting sector in the US. The growth showed signs of stagnation in 2018 and 2019. Freight contined to grow even in 2020, while passenger transport took a strong hit (15% below 2015 levels).

Transport CO_2 emissions in North America need to reduce at least 10% by 2030 and 60% by 2050. Recent federal developments accelerate their activities on infrastructure improvements (incl. rail, public transport etc.). However, these activities are not yet sufficient to drastically shift to an emission decrease. Specific targets on renwables in transport, vehicle electrification and public transport shares are relatively weak compared to the needed efforts.

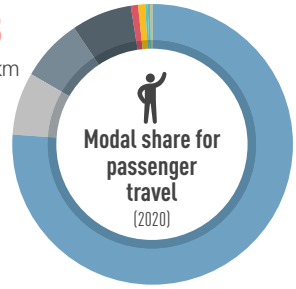
- **Income group:** High-income
- **Human Development Index (2021):** 0.921
- **Population size (2022):** 337 499 479 **+4.4%** (2015 - 2022)
- **Urban population share (2022):** 82.8% **+6.9%** (2015 - 2022)
- **GDP per capita (2021):** 60 442.30 **+7.35%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

6 809 458 million passenger-km in 2020

-15.2% (2015 to 2020)



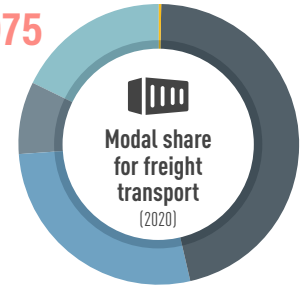
2020

76.2%	Light duty vehicle
7%	Trucks
0.5%	Motorcycle
0.7%	Public Transport
0.8%	Walking
0.2%	Cycling
7.2%	Intercity bus
0.1%	Intercity rail
7.2%	Air

Freight transport activity

7 666 075 million ton-km in 2020

+3% (2015 to 2020)



2020

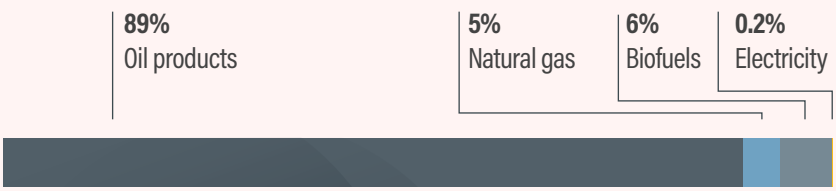
0.4%	Air
52%	Truck
30.9%	Railroad
9.4%	Domestic water transportation
19.9%	Pipeline

Energy consumption (2020)

550 million tonnes of oil equivalent

-10.4% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **8.6** (2019)



Transport Emission Trends

Transport CO_2 emissions (2021)

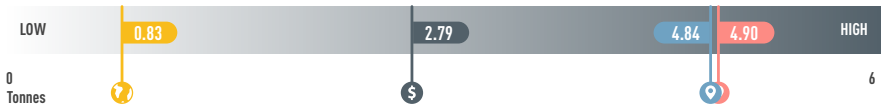
1647.6 million tonnes

-3.1% (2015 to 2021)

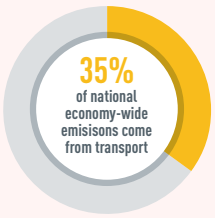
Per capita transport CO_2 emissions (2021)

4.90 tonnes

Per capita transport CO_2 emissions — Global average · Income group average · Regional average · United States average



Transport is the largest CO_2 producing sector in the country



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	No submission

Transport actions in VNRs

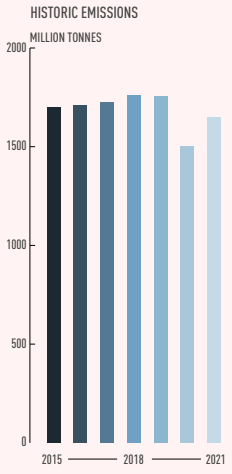
- Not available

Transport actions in NDC

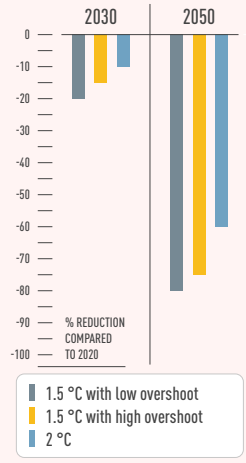
Mitigation

- Cycling measures
- EV charging infrastructure
- EV purchase incentives
- General alternative fuels
- General infrastructure improvements
- Vehicle efficiency standards
- Walking measures

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	Not available
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	Not available
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Only summarised as walking and cycling strategy in national plan

Targets

- Increase of trips by public transport and active transport from roughly 4% to 6% by 2026

Cycling

National walking strategies (2022)	Only summarised as walking and cycling strategy in national plan

Targets

- Increase of trips by public transport and active transport from roughly 4% to 6% by 2026

Cycling infrastructure in capital (2022)	167 km of separated bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	438 km in 15 cities
Bus rapid transit daily passenger volume (2022)	502 389
Urban rail (LRT, metro, tram) (2022)	2377 km in 41 cities
Rapid Transit to Resident Ratio (2021)	15.2

Intercity Rail

Rail network (2021)	148 553 km
Rail travel activity (2020)	12 460 million-passenger-km
Rail freight activity (2021)	2 239 400.7 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	Yes

Road Transport

Total road vehicles in use per 1,000 people (2020)	860.4
Average annual growth rate (from 2015 to 2020)	1.80%

Aviation

Air passengers carried (2020)	370 million people
Air freight activity (2020):	40793.1 million ton-km
Carbon-accredited airports (2022)	31 airports
of which carbon neutral:	4 airports

Shipping

Liner shipping connectivity index (2021):	102.6
Container port traffic (2022):	54 963 689 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Subnational between 2 to 20% biodiesel, 2 to 20% ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	6.40%
Targeted % of renewable energy	15% by 2030 and 30% biofuels in transport by 2050

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2020)	128.4 gCO_2/km
Targeted CO_2 emissions performance	79.2 gCO_2/km by 2026
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	2 100 000
Share of electric vehicles in car sales (2022)	7.7%
ICE phase-out targets:	No, but subnational level 2035

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)	
... trips to public transport	-52.40%	Week of 12 April 2020
... navigation request for walking	-54.30%	Week of 29 March 2020
... navigation request for driving	-46.60%	Week of 5 April 2020
... driven kilometres	-65.70%	Week of 12 April 2020
Traditional transport infrastructure investment:	USD 393.11 billion	
Clean transport infrastructure investment:	USD 222.63 billion	

Examples

- Nationally significant freight and highway projects
- Safe routes to school
- Active transportation infrastructure investment program
- Federal-state parternship for intercity passenger rail grants
- Bus facilities and low/no-emission grants

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WLTP	Worldwide harmonised light vehicles test procedure

Australia

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

Australia remains the largest emitter of transport CO_2 emissions in the Oceania region. Before the COVID-19 pandemic, transport CO_2 emissions were on the way to surpass 100 million tonnes in 2020, but the lockdowns reduced annual transport emissions to 83 million tonnes CO_2. Freight transport activity continued to grow, over 10% from 2015 to 2020.

As a high-income country with high levels of per capita transport CO_2 emissions, Australia needs to decarbonise transport until 2050. However, since the second edition there were few achievements in the major transport policy areas. The main activities continue to happen on the subnational level. There is no phase-out target for fossil fuel vehicle sales and a lack of support mechanisms for sustainable urban mobility.

Income group: High-income

Human Development Index (2021): 0.951

Population size (2022): 26 046 256 +10.2% (2015 - 2022)

Urban population share (2022): 86.3% +10.2% (2015 - 2022)

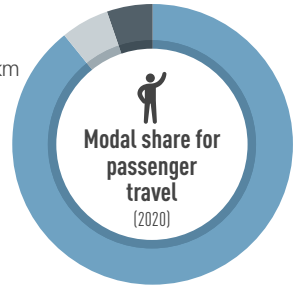
GDP per capita (2021): 58651.21 +2.67%% (2015 - 2021)

Transport Demand Trends

Passenger travel activity

280 680 million passenger-km in 2020

-5.2% (2015 to 2020)

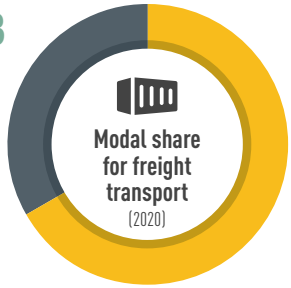


2020
89.3% Passenger Cars
5.1% Railways
5.7% Bus

Freight transport activity

670 373 million ton-km in 2020

+11% (2015 to 2020)



2020
33.3% Road
66.7% Railways

Energy consumption (2020)

31.57 million tonnes of oil equivalent

-2.5% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) **8.3** (2019)

96.4% Oil Products
1.5% Natural Gas
0.4% Biofuels
1.7% Electricity

Transport Emission Trends

Transport CO_2 emissions (2021)

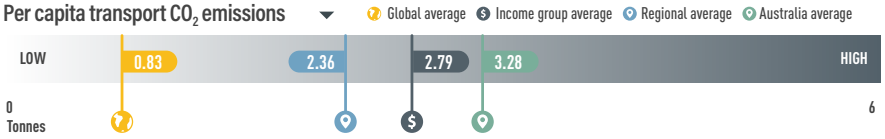
84.7 million tonnes

-10% (2015 to 2021)

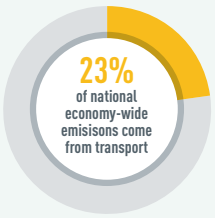
Per capita transport CO_2 emissions (2021)

3.28 tonnes

Per capita transport CO_2 emissions



Transport is the second-largest CO_2 producing sector in the country



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

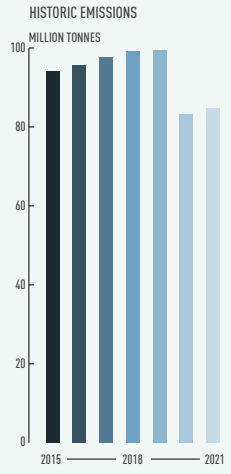
- Road safety improvements
- Transport system modernisation

Transport actions in NDC

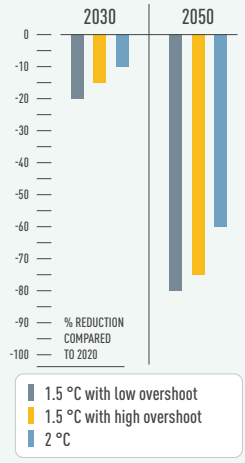
Mitigation
- EV purchase incentives
- General e-mobility
- Inspection and maintenance

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	Not available
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Only on subnational level

Targets
Example of Queensland:

- 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

National walking strategies (2022)	Only on subnational level

Targets
Example of South Australia:

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

Cycling infrastructure in capital (2022)	Not available

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	90 km in 3 cities
Bus rapid transit daily passenger volume (2022)	413 300
Urban rail (LRT, metro, tram) (2022)	622 km in 7 cities
Rapid Transit to Resident Ratio (2021)	11.2

Intercity Rail

Rail network (1989)	7 147 km
Rail travel activity (2021)	9327.6 million-passenger-km
Rail freight activity (2021)	453 091 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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)	737.2
Average annual growth rate (from 2015 to 2020)	1.90%

Aviation

Air passengers carried (2020)	24 million people
Air freight activity (2020):	1 200.6 million ton-km
Carbon-accredited airports (2022)	13 airports
of which carbon neutral:	1 airport

Shipping

Liner shipping connectivity index (2021):	35.7
Container port traffic (2020):	8 656 995 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	Not available
Renewable energy (biofuels and electricity) share in transport (2020)	2.10%
Targeted % of renewable energy	Not available

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 6
CO_2 emissions performance for passenger cars (2020)	Not available
Targeted CO_2 emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Not available
Electric vehicles (2022)	67 000
Share of electric vehicles in car sales (2022)	5.1%
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-63.70% Week of 12 April 2020
... navigation request for walking	-61.20% Week of 12 April 2020
... navigation request for driving	-57.80% Week of 12 April 2020
... driven kilometres	-53.60% Week of 12 April 2020
Traditional transport infrastructure investment:	USD 18.14 billion
Clean transport infrastructure investment:	USD 5.12 billion

Examples

- Supporting infrastructure
- Infrastructure Investment — road safety and upgrades

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List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
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 Developiment Goals
WLTP	Worldwide harmonised light vehicles test procedure

New Zealand

SLOCAT

TRANSPORT, CLIMATE AND SUSTAINABILITY GLOBAL STATUS REPORT

New Zealand's transport CO_2 emissions increasd by 12.4% from 2015 to 2019, due to constant increases in passenger and freight activity. As of 2021, transport continues to be the largest CO_2-emitting sector in the country.

The previous edition pointed to the newly released long-term vision of becoming carbon-neutral by 2050. This ambition was translated to transport, resulting in strategies to promote walking and cycling, improve rail services and support the transition to electric vehicles.

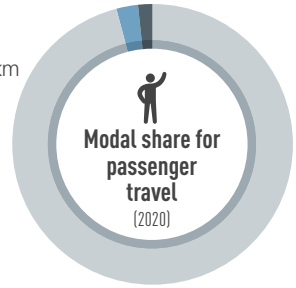
- **Income group:** High-income
- **Human Development Index (2021):** 0.937
- **Population size (2022):** 5 163 684 **+13.4%** (2015 - 2022)
- **Urban population share (2022):** 82.7% **+7.2%** (2015 - 2022)
- **GDP per capita (2021):** 40 993.66 **+4.8%** (2015 - 2021)

Transport Demand Trends

Passenger travel activity

55 432 million passenger-km in 2020

+15% (2017 to 2020)

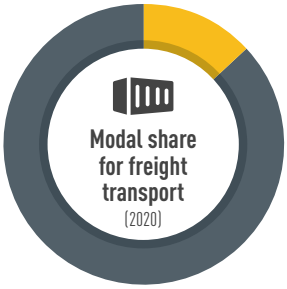


2020
- 96% Passenger cars
- 1.4% Railways
- 2.5% Bus

Freight transport activity

55 432 million ton-km in 2020

+12.2% (2015 to 2020)



2020
- 13.1% Railways
- 86.9% Road

Energy consumption (2020)

4.62 million tonnes of oil equivalent

-4.2% (2015 to 2020)

Average light duty fuel economy consumption Lge/100 km (WLTP) — (n/a)

Transport Emission Trends

Transport CO_2 emissions (2021)

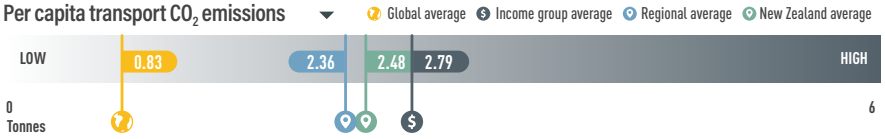
12.6 million tonnes

-12.2% (2015 to 2021)

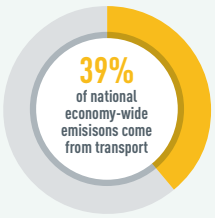
Per capita transport CO_2 emissions (2021)

2.48 tonnes

Per capita transport CO_2 emissions



Transport is the largest CO_2 producing sector in the country



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 3, SDG 7, SDG 8, SDG 11 and SDG 13

Transport actions in VNRs

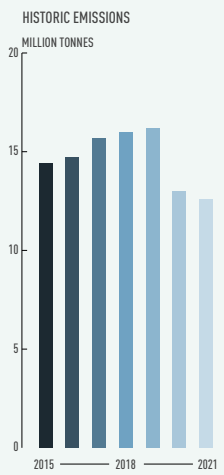
- Active transport promotion
- Road safety improvements
- Electric vehicles
- Renewable energy and hydrogen uptake in transport
- Road freight employment
- Public transport promotion

Transport actions in NDC

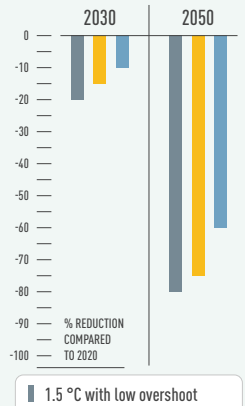
Mitigation
- EV purchase incentives
- Vehicle restrictions (import, age, access, sale, taxation)
- Vehicle taxes

Adaptation
- Not available

Required regional transport decarbonisation pathways



IPCC transport decarbonisation pathways for this region



- 1.5 °C with low overshoot
- 1.5 °C with high overshoot
- 2 °C

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2022)	✓
Sustainable urban mobility plans (2022)	✓
Number of sustainable urban mobility plans (2022)	5 cities
Low emission zones (2022)	Not available

Walking

National walking strategies (2022)	Only summarised as walking and cycling strategy in national plan

Targets

- NZD 1 billion in walking and cycling improvements

Cycling

National walking strategies (2022)	Only summarised as walking and cycling strategy in national plan

Targets

- NZD 1 billion in walking and cycling improvements

Cycling infrastructure in capital (2022)	23 km of bikelanes

Shared Mobility, Public Transport and Informal Transport

Bus rapid transit (2022)	6 km in 1 city
Bus rapid transit daily passenger volume (2022)	22 900
Urban rail (LRT, metro, tram) (2022)	192 km in 2 cities
Rapid Transit to Resident Ratio (2021)	3.9

Intercity Rail

Rail network (1998)	3 908 km
Rail travel activity (2020)	802 million-passenger-km
Rail freight activity (2021)	4 444 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✓

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)	869.2
Average annual growth rate (from 2015 to 2020)	3.50%

Aviation

Air passengers carried (2020)	8.5 million people
Air freight activity (2020):	774 million ton-km
Carbon-accredited airports (2022)	4 airports
of which carbon neutral:	1 airport

Shipping

Liner shipping connectivity index (2021):	30.5
Container port traffic (2020):	3 174 304 TEU

Transport Energy Sources

Biofuel blend mandate (2022)	7% Biodiesel
Renewable energy (biofuels and electricity) share in transport (2020)	0.20%
Targeted % of renewable energy	30% of biofules by 2050

Vehicle Technologies

Emission standards for LDVs (2020)	Euro 4
CO_2 emissions performance for passenger cars (2021)	158.8 gCO_2/km
Targeted CO_2 emissions performance	62.7 gCO_2/km by 2027
Regulatory environment ranking on used vehicles by UNEP (2021)	Good
Electric vehicles (2022)	46 000
Share of electric vehicles in car sales (2022)	13.0%
ICE phase-out targets:	✗

COVID-19

Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-86.30% Week of 19 April 2020
... navigation request for walking	-78.40% Week of 19 April 2020
... navigation request for driving	-85% Week of 12 April 2020
... driven kilometres	Not available
Traditional transport infrastructure investment:	Not available
Clean transport infrastructure investment:	Not available

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