

Brazil



TRANSPORT, CLIMATE
AND SUSTAINABILITY
GLOBAL STATUS REPORT



Transport is the largest CO₂ emitting sector in **Brazil**, contributing 38% of the total emissions in the country. The country however registered a 6% decrease in transport CO₂ emissions between 2015 and 2021 and per capita transport CO₂ 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)

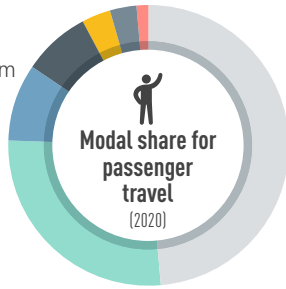
Transport Demand Trends

Passenger travel activity

17 726

million passenger-km
in 2020

-48.3%
(2015 to 2020)

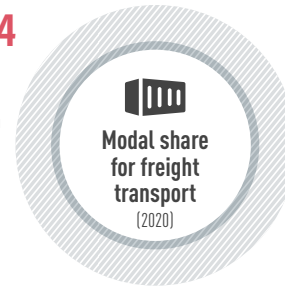


Freight transport activity

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)

72%
Oil Products

3.5%
Natural Gas

24.2%
Biofuels

0.3%
Electricity

Transport Emission Trends

Transport CO₂ emissions (2021)

187.8 million tonnes

-6.1%
(2015 to 2021)

Per capita transport CO₂ emissions (2021)

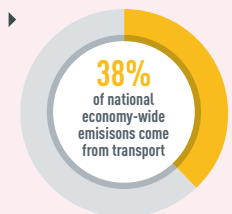
0.88 tonnes

Per capita transport CO₂ emissions

Global average Income group average Regional average Brazil average



Transport is the **largest CO₂ 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

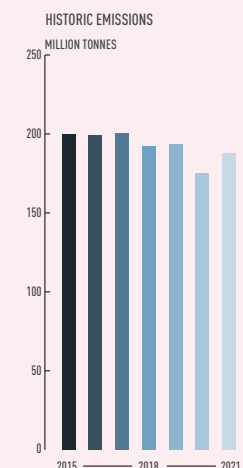
▶ Not available

Transport actions in NDC

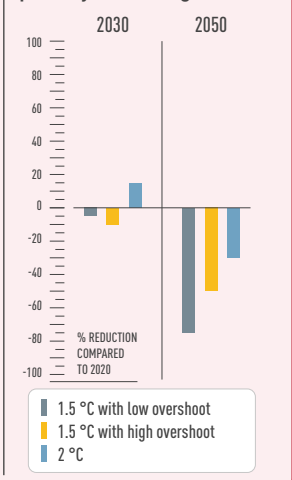
Mitigation ▶ Not available

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 <ul style="list-style-type: none"> ▶ 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 <ul style="list-style-type: none"> ▶ 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)	140%

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

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

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	TEU	Twenty-foot Equivalent Unit
HDV	Heavy-duty vehicle	UNEP	United Nations Environment Programme
ICE	Internal combustion engine	UNFCCC	United Nations Framework Convention on Climate Change
LDV	Light-duty vehicle	VNR	Voluntary national review of the Sustainable Development Goals
LRT	Light-rail transit	WLTP	Worldwide harmonised light vehicles test procedure
NDC	Nationally determined contribution		