

China



China emits the second-highest transport CO₂ emissions in the world, and has seen a growth of over 70% in transport emissions since 2010. However, in China, transport is only the fourth-largest CO₂-emitting sector.

China aims to become carbon-neutral by 2060. It has established frameworks to accommodate future growth while pursuing sustainable mobility. The country's most significant strategies are around the electrification of transport. In cities, urban mobility plans support zero-emission freight, walking and cycling.

Income group: Middle-income

Human Development Index: 0.76

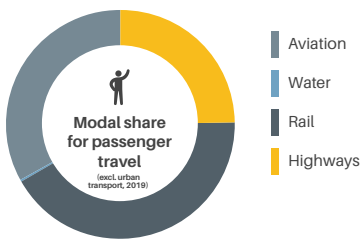
	Population size (2020)	Urban population share (2020)	GDP per capita (2019)
Total	1 439.3 million	60.8%	8 046.7
Growth <small>(2010 to 2020)</small>	5.2%	30.7%	89.5%

Mobility Demand Trends

Passenger travel activity

3 534 920

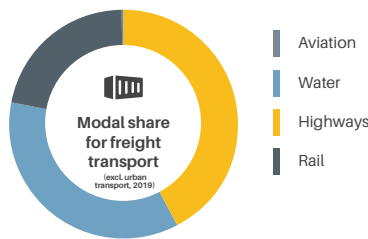
million passenger-km in 2019
+ 27% (2010 to 2019)



Freight transport activity

13 998 760

million ton-km in 2019
+ 49% (2010 to 2019)



Fuel consumption (2018)

324 599

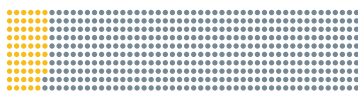
thousand tonnes of oil equivalent
+65% (2010 to 2018)

Average light duty fuel economy consumption (2017)
7.6 Lge/100 km (WLTP)



Car ownership growth (2005 to 2015)

115.9 vehicles per 1,000 people



+103%

Vehicle sales (2019)

Passenger (Growth 2010 to 2019)
21 444 180 **-9.6%**

Commercial
4 324 497 **-1.1%**

Diesel
US cents per litre (2018)

106

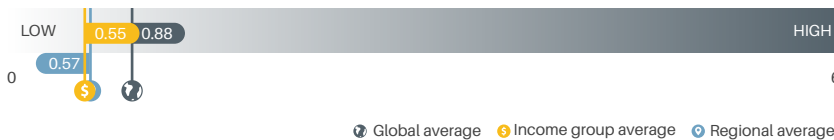
Super gasoline
US cents per litre (2018)

118

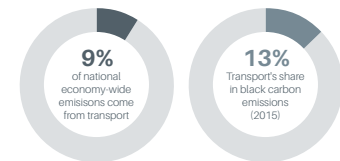
Transport Emission Trends

Transport CO₂ emissions (2019)
986.5 million tonnes

Per capita transport CO₂ emissions (2019)
0.69 tonnes

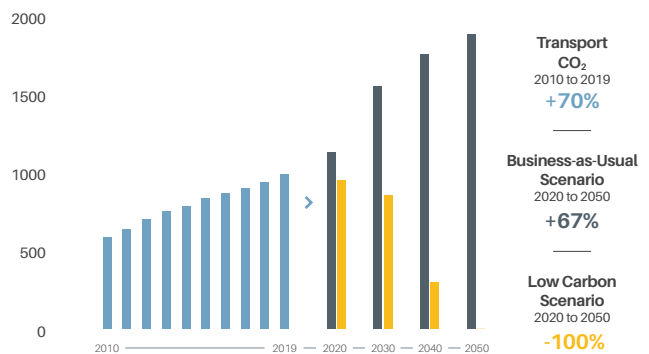


Fourth-largest CO₂ producing sector in the country



Low Carbon Transport Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	Not submitted
NDC submitted	1st NDC
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	Not available
Voluntary National Review highlights transport	✗ 2016 VNR with no transport linkages



Transport measures in NDC

Mitigation	Measures
• Fuel quality improvement	• Freight efficiency measures
• Alternative fuels	• System improvements
• Walking measures	• Comprehensive planning
• Cycling measures	• Public transport integration and expansion

Adaptation

- Not available

Sustainable Mobility Planning & Transport Demand Management

National Urban Mobility Framework (2020)	✓
Targets	<ul style="list-style-type: none"> Building an integrated urban transport network Implementing comprehensive urban transport systems Aimed to increase the share of public transport to 30% of all motorised trips by 2020, including by promoting walking and cycling
Sustainable Urban Mobility Plans (2020)	✓
Low Emission Zones (2020)	11 cities

Walking and Cycling

National walking and cycling strategies (2020)	Walking and cycling are part of the national transport strategy
Cycling infrastructure in capital (2020)	900 km of separated bikelanes

Urban Passenger and Freight Transport

Bus rapid transit (2020)	672 km in 20 cities
Urban rail (LRT, metro, tram) (2020)	6 100 km in 37 cities
Bus rapid transit daily passenger volume (2020)	4 375 250
Rapid Transit to Resident Ratio (2019)	13.9

Passenger and Freight Railways

Rail network (2019)	68 141 km
High-speed rail (2018)	29 904 km
High-speed rail travel activity (2019)	774.7 billion passenger-km
National plans for passenger and freight rail expansion (2020)	✓
Targets	<ul style="list-style-type: none"> By 2035, expand overall rail network to 200,000 km; with 70,000 km of high-speed railways.
Rail travel activity (2017)	1 345 690 million passenger-km
Rail freight activity (2018)	2 882 100 million ton-km

Shared Mobility Services

Bike-sharing systems (2020)	650 systems
Electric scooter services (2020)	Not available
Carsharing services (2021)	14 services
National legal frameworks for shared mobility (2020)	✓
Autonomous vehicles in operation or in preparation (2020)	7
Autonomous vehicles strategies (2020)	✓

Fuel Economy

Emission standards for LDVs (2018)	Euro 4
CO ₂ emissions performance for LDVs (2017)	175 gCO ₂ /km
Emission standards for HDVs (2018)	Euro IV
Targeted CO ₂ emissions performance	93 gCO ₂ /km by 2025

Electric Mobility

Electric vehicles (2019)	3 349 100
Market share of electric vehicles (2019)	4.9%
No. of cities with electric buses (2019)	32
ICE phase-out targets	✗

Renewable Energy

Biofuel blend mandate (2019)	10% Ethanol
Renewable energy (biofuels and electricity) share in transport (2018)	4.5%
Targeted % of renewable energy	Not available

Aviation

Air passengers carried (2019)	659.6 million people
Air freight activity (2019)	25 394.6 million ton-km
Carbon-accredited airports (2020)	6 airports
<i>of which carbon neutral</i>	✗

Shipping

Liner shipping connectivity index (2019)	151.9
Container port traffic (2019)	242 030 000 TEU

COVID-19

Traditional transport infrastructure investment	Not available
Clean transport infrastructure investment	USD 7.7 billion

Examples	<ul style="list-style-type: none"> High-speed rail Beijing light truck operation Upgrade of ships Rural transport infrastructure
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This fact sheet is part of the SLOCAT Transport and Climate Change Global Status Report - 2nd edition.

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