

# India



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<sub>2</sub> emissions in 2021 were at 0.2 tons CO<sub>2</sub>, 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.

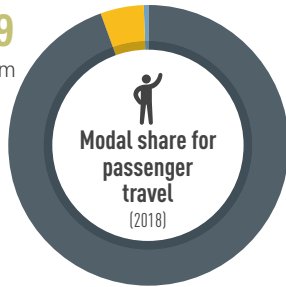
Income group: Middle-income	
Human Development Index (2021): 0.633	
Population size (2022): 142,319,817	+74% (2015 - 2022)
Urban population share (2022): 35.8%	+18% (2015 - 2022)
GDP per capita (2021): 1,948.28	+21.8% (2015 - 2021)

## Transport Demand Trends

### Passenger travel activity

23 759 699 million passenger-km in 2020

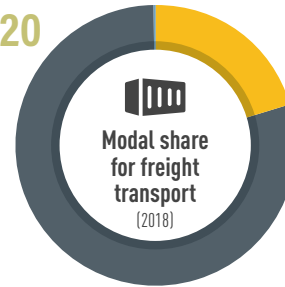
+43.3% (2015 to 2018)



### Freight transport activity

3 392 620 million ton-km in 2020

+67.2% (2015 to 2018)



### 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)

93.8% Oil Products

2.9% Natural Gas

1.5% Biofuels

1.7% Electricity

## Transport Emission Trends

### Transport CO<sub>2</sub> emissions (2021)

286.2 million tonnes

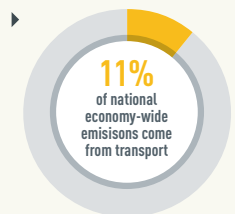
+11.1% (2015 to 2018)

### Per capita transport CO<sub>2</sub> emissions (2021)

0.20 tonnes



Transport is the third-largest CO<sub>2</sub> 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	✓

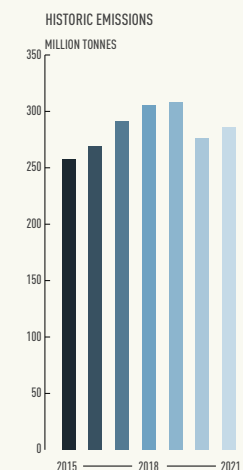
### Transport actions in VNRs

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

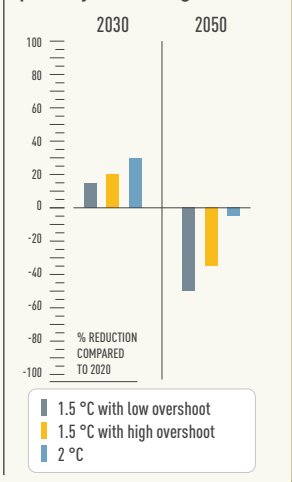
### Transport actions in NDC

- 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
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### 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 <sub>2</sub> emissions performance for passenger cars (2020)	121 gCO <sub>2</sub> /km
Targeted CO <sub>2</sub> emissions performance	113 gCO <sub>2</sub> /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

This fact sheet is part of the SLOCAT Transport, Climate and Sustainability Global Status Report 3<sup>rd</sup> 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](http://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