

Italy



Italy has recorded a stagnation in transport CO₂ 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 CO₂ 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)

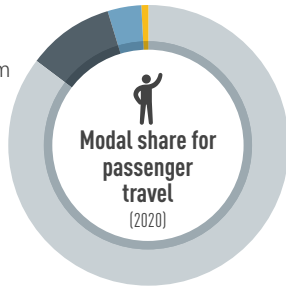
Transport Demand Trends

Passenger travel activity

572.60

billion passenger-km in 2020

31.2%
(2015 to 2020)



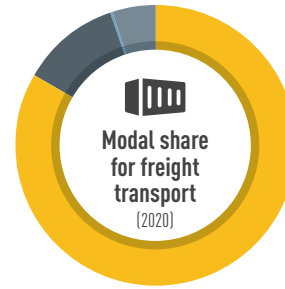
85.3%	Passenger cars
10.1%	Buses and coaches
3.9%	Railways
0.7%	Tram and metro

Freight transport activity

182.90

billion ton-km in 2020

+11.2%
(2015 to 2020)



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)

89%
Oil Products

3.4%
Natural Gas

4.5%
Biofuels

3.1%
Electricity

Transport Emission Trends

Transport CO₂ emissions (2021)

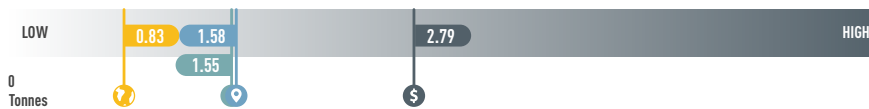
92.1 million tonnes

10.6%
(2015 to 2021)

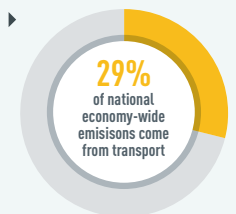
Per capita transport CO₂ emissions (2021)

1.55 tonnes

Per capita transport CO₂ emissions



Transport is the **second-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 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

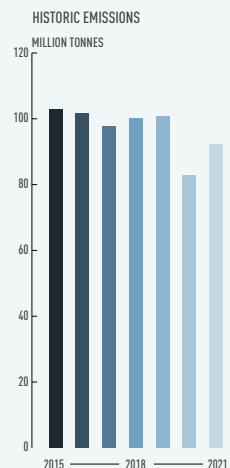
- Sustainable urban mobility plans
- Integrated public transport pricing pilot project

Transport actions in NDC

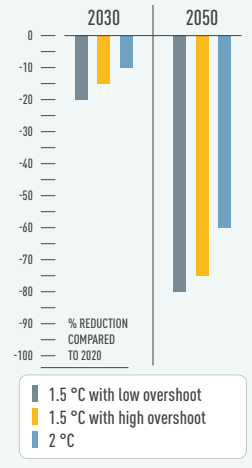
- Emissions trading and carbon pricing
- Vehicle efficiency standards

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)	78 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)	760%
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	

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