

Canada



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 CO₂ 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	+77% (2015 - 2022)
Urban population share (2022): 81.6%	+7% (2015 - 2022)
GDP per capita (2021): 44 207.86	+1% (2015 - 2021)

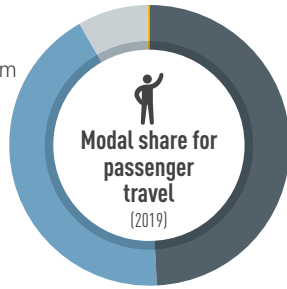
Transport Demand Trends

Passenger travel activity

538 800

million passenger-km in 2009

+6.5%
(2000 to 2009)

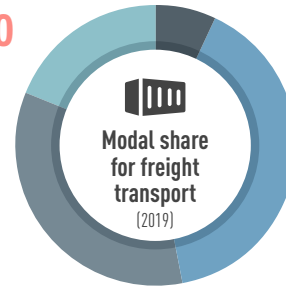


Freight transport activity

727 900

million ton-km in 2011

+19%
(2000 to 2020)



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)

90%
Oil products

6%
Natural gas

3%
Biofuels

1%
Electricity

Transport Emission Trends

Transport CO₂ emissions (2021)

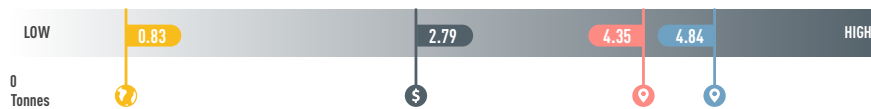
165.3 million tonnes

-8.1%
(2015 to 2021)

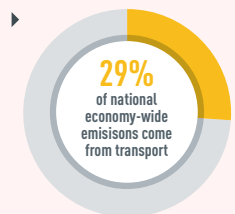
Per capita transport CO₂ emissions (2021)

4.35 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
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

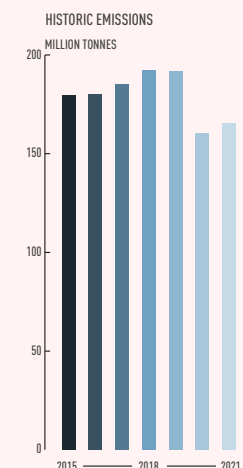
Transport actions in VNRs

- Urban mobility development
- Infrastructure development

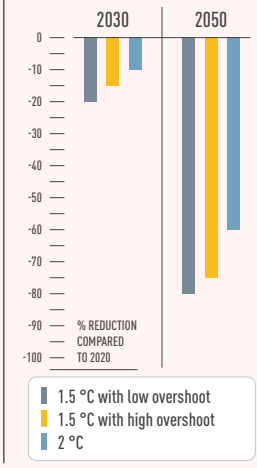
Transport actions in NDC

- 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Energy Efficient Transportation Support Support for charging and refueling stations Local public transport support (Oakville) Infrastructure investments 	

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