

Canada

Canada's transport sector is the second-largest contributor to national GHG emissions, accounting for 22.6% of total emissions in 2023. Despite a decline of 2.8% in transport emissions since 2015, per capita emissions remain high at 4.33 tonnes, above the global and regional averages. The country has a strong policy framework for transport decarbonisation, including subnational emission targets and a 100% zero-emission light-duty vehicle sales target by 2035. Transport contributed with 9.8% a high share of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 1.01 premature deaths per 100,000 people in Canada in the same year. Road traffic injuries claimed 4.7 lives per 100,000 people and accounted for 1.9% of Canada's GDP

In 2021, 77% of Canada's population had convenient access to public transport. Canada is advancing sustainable mobility through integrated urban transport planning, active transport strategies, and public transport expansion. While national cycling and walking strategies promote accessibility and safety, urban rail and bus rapid transit infrastructure remain limited. The country is investing in passenger and freight rail expansion, including a planned high-speed corridor between Toronto and Quebec City. Electric vehicle adoption is growing, with 13% of car sales in 2023 being electric, supported by an internal combustion engine phase-out target for 2035.

Income group: High-income

Human Development Index (2023): 0.94

Population size (2023): 36.13 million **+9.13%** (2015 - 2023)

Urban population share (2023): 80.81% **+8.05%** (2015 - 2023)

GDP per capita (2023): 45 568.05 USD **+4.78%** (2015 - 2023)

Share of transport and storage jobs in workforce (2023) **7.9%**

Share of women employed in transport and storage (2023) **25%**



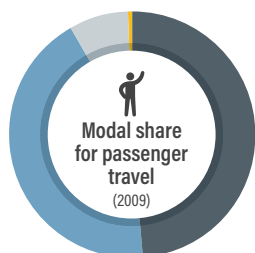
Transport Demand Trends

Passenger transport activity

538 800

million passenger-km in 2009

+6.5%
(2000 to 2009)



7.9% Air
49.4% Passenger cars
42.4% Light trucks
0.3% Intercity rail

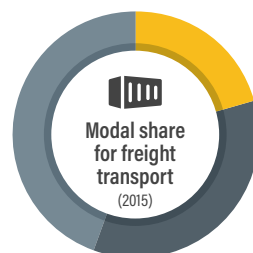
SDG 91

Freight transport activity

808 300

million ton-km in 2015

+24.4%
(2010 to 2015)



20.6% Roads
35.0% Railways
0.1% Aviation
44.3% Pipeline

SDG 91

Transport energy consumption (2022)

2 479 447 TJ

-2.4%
(2015 to 2022)

Oil products

87.3%

of total transport energy consumption

Per capita fossil fuel subsidies (2022)

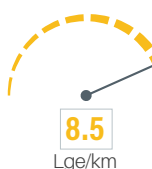
452.3 USD per capita

SDG 12

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)



Road traffic fatalities (2021), WHO estimates

SDG 3.6

4.7

deaths per 100,000 people **13.2** Regional **15.0** Global

Road traffic fatality cost as percentage of GDP (2021)

1.9%

Premature deaths linked to transport air pollution (2019)

SDG 11.6

1.0

deaths per 100,000 people **1.7** Regional **2.3** Global

Contribution of transport to air pollution (2019)

9.8%

Transport Emission Trends

Transport GHG emissions (2023)

169.0

million tonnes of CO₂ equivalent

-2.8%
(2015 to 2023)

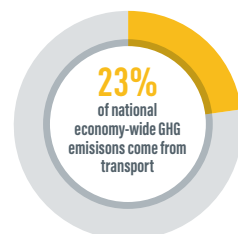
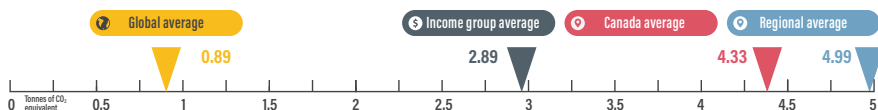
+1.3%
(2022 to 2023)

Per capita transport GHG emissions (2023)

4.3

tonnes of CO₂ equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the **second-largest** GHG-emitting sector in the country in 2023.

Transport Decarbonisation Pathways

Transport strategy identifies climate change



Long-term strategy submitted to UNFCCC



NDC submitted:

1st, 2nd and 3rd NDC

NDC highlights transport for GHG mitigation



Transport mitigation targets in NDC

✗ No but subnational targets

Other non-emission related transport targets in NDC

✓ 100% of new light-duty vehicles sold to be zero-emission by 2035

VNR highlights transport

✓ 2023 VNR with transport linkages to SDG9 and SDG 11

Transport actions in VNRs

- ▶ E-mobility
- ▶ Charging stations
- ▶ Public transport expansion
- ▶ Active transport

Transport actions in NDC

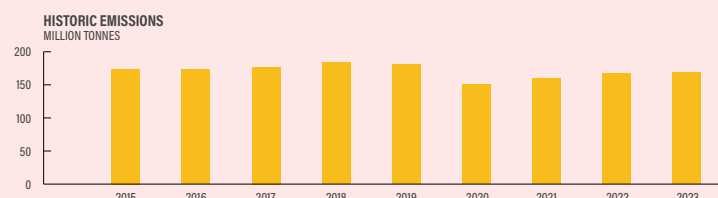
Mitigation

- ▶ Transport demand management measures
- ▶ Transport and land use planning
- ▶ Public transport expansion and improvement
- ▶ Financial instruments to support decarbonisation
- ▶ Alternative fuels measures
- ▶ E-mobility measures
- ▶ Renewable energy measures
- ▶ Jet fuel policies

Adaptation

- ▶ Transport Infrastructure Resilience

Transport GHG emissions from 2015 to 2023



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✓
Sustainable urban mobility plans (2024)	✓
Number of sustainable urban mobility plans (2024)	1 city (Québec)
Low emission zones (2022)	✗ 1 LEZ planned for Montreal (2030)

Adaptation and Resilience

ND-GAIN Index (2022)	68.46
Vulnerability score for infrastructure (2022)	0.12

Walking

Walkability Score (2024)	0.67
National walking strategies (2024)	✓ Combined with cycling

Target

- Improve community connections and promote social equity amongst vulnerable Canadians
- Make travel by active transport easier, more convenient and enjoyable, and enhance user safety and security
- Encourage people to choose active transport over personal vehicles (including supporting walking and cycling to access public transport)
- 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 transport modes to businesses

Cycling

Cycling infrastructure in capital (2024)	More than 1000km in Montreal
Percent near protected bikeways (2024)	34%
Bike sharing systems (2024)	31
National cycling strategies (2024)	✓ Combined with walking

Target (see above)

Public Transport

Bus rapid transit (2024)	306 km of total length in 7 cities
Bus rapid transit daily passenger volume (2024)	503 407 passengers per day
Urban rail (LRT, metro, tram) (2024)	242.2 km in 5 cities
Proportion of population that has convenient access to public transport (2020)	SDG 11.2 77%

Intercity Rail

Rail network (2021)	48 149.91 km
Rail travel activity (2021)	536 million passenger-km
Rail freight activity (2021)	430 170 million ton-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- The Alto high-speed rail network to connect Toronto and Quebec City, spanning approximately 1,000 kilometres
- Jaleslie Siding Extension project to enhance the reliability and fluidity of freight trains and passenger rail services to and from the Port of Vancouver

Road Transport

Total road vehicles in use per 1,000 people (2020)	704.6
Road vehicle fleet growth (from 2015 to 2020)	15.4%
Rural Access Index (2019)	SDG 9.1 —
Diesel prices (2022)	1.33 USD per litre
Gasoline prices (2022)	1.35 USD per litre

Aviation

Air passengers carried (2021)	25.0 million people
Air freight activity (2021)	3 240.0 million ton-km
Carbon-accredited airports (2023)	27 airports
of which carbon neutral:	3 airports

Shipping

Logistics Performance Index (2023)	4
Liner shipping connectivity index (Q4 2024)	48.8
Container port traffic (2020)	6 196 600.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	Subnational mandates ranging from 2 to 10%
Biofuel blend biodiesel mandate (2023)	2.0%
Biofuel blend ethanol mandate (2023)	5.0%
Carbon intensity of electricity (2023)	165.15 gCO ₂ /kWh
Renewable energy (biofuels and electricity) share in transport (2022)	SDG 7.2.1 5.4% of total transport energy consumption
Biofuels (2022)	4.2% of total transport energy consumption
Electricity (2022)	1.2% of total transport energy consumption
Targeted renewable power share	90%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO ₂ emissions performance for passenger cars (2024)	112 g CO ₂ /km in 2017
Targeted CO ₂ emissions performance (2024)	8 g CO ₂ /km by 2035
Regulatory environment ranking on used vehicles (2024)	—
Electric vehicles stock for passenger cars (2024)	620 000 vehicles
Share of electric vehicles in car sales (2024)	17 %
ICE phase-out targets	✓ (2035)
Electric vehicles stock for vans (2024)	31 000 vehicles
Electric vehicles stock for trucks (2024)	5 300 vehicles

This fact sheet is part of the SLOCAT Transport, Climate and Sustainability Global Status Report - 4th Edition. The country fact sheets have been made possible thanks to financial support from the ClimateWorks Foundation. Information presented in this fact sheet is based on desk research and may not be complete or reflect the most recent status. Data has been collected to the best of our knowledge and availability. Where no information could be retrieved, the indicators are shown in grey. The content does not represent the views of the SLOCAT Partnership on Sustainable, Low Carbon Transport or the ClimateWorks Foundation. For more information, please visit gsr4.slocat.net.

Supported by:  Drive Electric CAMPAIGN

List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
kWh	Kilowatt-hour
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
PST	Primary, secondary or tertiary roads

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

