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North America Regional Overview

DEMOGRAPHICS, TRANSPORT AND SUSTAINABILITY DATA

Indicators	North America	Global
Population size (2023)	381 million	8,000 million
Population growth (2015-2023)	5.9%	8.5%
Urban population share (2023)	82.2%	57%
Urban population growth (2015-2023)	7.9%	16%
GDP per capita (2023)	USD 61,470 (constant 2015 USD)	USD 11,337 (constant 2015 USD)
GDP growth (2015-2023)	18.7%	22.8%
Share of women employed in transport and storage (2023)	28.1%	15.6%
Motorisation rate (2022)	804.6 vehicles per 1,000 people	218.7 vehicles per 1,000 people
Share of urban population with convenient access to public transport (2020)	66.9%	52%
Share of rural population with access to all-weather primary and secondary roads (2020)	No data	38%
Transport total GHG emissions (2023)	1,905 million tonnes CO_2eq	7,123 million tonnes CO_2eq
Per capita transport GHG emissions (2023)	4.99 tonnes CO_2eq	0.89 tonnes CO_2eq
Fossil fuel subsidies (explicit and implicit) (2023)	USD 2,172 per capita (constant 2021 USD)	USD 813 per capita (constant 2021 USD)
Share of renewable energy sources in transport (2022)	5.8%	4.6% for 2023
Carbon intensity of electricity generation (2023)	279 gCO_2/kWh	417 gCO_2/kWh
Transport contribution to air pollution (2019)	12.6%	6%
Premature deaths attributable to air pollution by transport (2019)	1.7 per 100,000 people	2.3 per 100,000 people
Road casualties (2021)	13.2 per 100,000 people	15 per 100,000 people

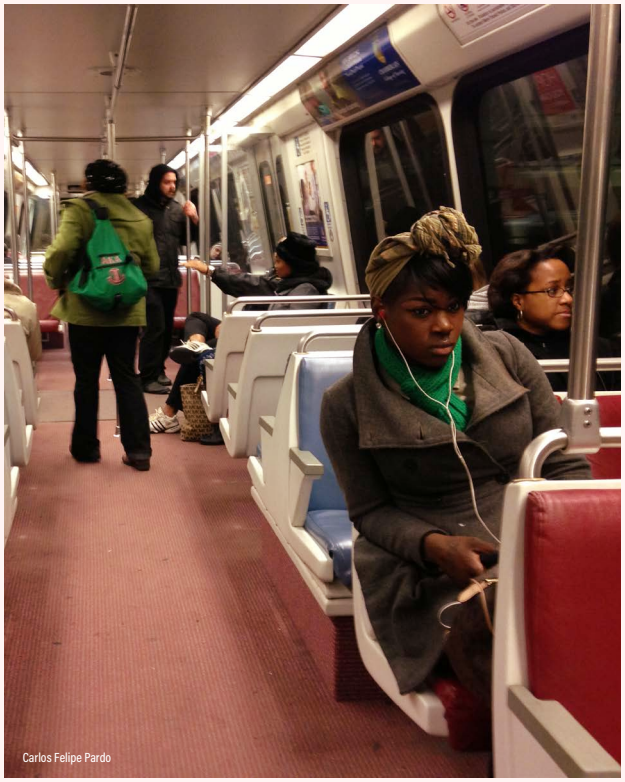
Source: See endnote 1 for this section.

Photo: Carlos Felipe Pardo

KEY FINDINGS

Demand, use and access

- Transport is a key pillar of the North American economy. In Canada, the sector directly contributed 4% to the gross domestic product (GDP) in 2023 and employed 844,000 people in 2024. In the United States, transport accounted for 6.5% of GDP in 2023 and employed 6.7 million people as of January 2025.
- Access to sustainable, zero-emission transport, especially public transport and safe walking and cycling, remains limited in the region. In 2020, only 57% of the US urban population had convenient access to public transport – above the global average of 52%, yet below Canada's share of 77%.
- Freight transport by road, pipeline and rail continued to play a significant role in economic activity in North America.
- Across the region, passenger transport activity increased again after the sharp declines experienced during the COVID-19 pandemic in 2020. Passenger transport activity in the United States increased 12% in 2021 but then fell 2% in 2022.



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- Rail passenger transport in the United States grew 19% in 2023 to reach 9,376 million passenger-kilometres; rail ridership was up 104% from the historic low of 4,603 million passenger-kilometres in 2021 but still 10% below the 2019 level (10,440 million passenger-kilometres).
- Four out of five workers in North America commuted primarily by private vehicle in 2022.
- US public transport ridership increased 17% in 2023 – reaching 6.9 billion trips and 56 billion passenger-kilometres – but it still did not recover from pandemic-related declines in 2020 and 2021.
- Walking and cycling play important roles in regional transport but are often overlooked and undercounted.
- Shared micromobility (bicycles and electric scooters) in North America reached a new record high in 2023, with 157 million rides taken in the United States, surpassing the 147 million rides recorded in 2019.
- Although average US petrol prices have fallen from their historic peak in 2022, transport costs place a higher household burden on North America than most regions due to high dependency on private vehicles.
- The region's motorisation levels (covering four-wheeled motor vehicles) remained at an all-time high in 2022, at four times the global average and 15 times higher than in Africa. Canada had a motorisation rate of 654 vehicles per 1,000 people in 2022, while the rate in the United States was even higher at 822 vehicles per 1,000 people.
- Electric passenger car sales in North America continued their near-exponential growth until 2023, then grew modestly in 2024.
- The United States accounted for 11% of global battery electric passenger car sales in 2024, surpassing 1 million units for the first time with 1.1 million new registrations in 2023 and 1.2 million in 2024.
- More electric buses and heavy-duty trucks have entered service in North America, including in both municipal and private fleets.

KEY FINDINGS

Sustainability and climate trends

- In 2023, North America was responsible for 26.7% of global transport greenhouse gas emissions (excluding international aviation and shipping), the second highest regional share after Asia (40.3%).
- Transport emissions in North America increased 0.72% in 2023 – reaching 1.9 gigatonnes of CO_2 equivalent – but were still below 2019 levels.
- Per capita transport emissions totalled 4.3 tonnes of CO_2 equivalent in Canada and 5.1 tonnes in the United States in 2023 – roughly five times higher than the global average of 0.9 tonnes. Key factors behind high per capita emissions are high private motorisation levels and long travel distances.
- In 2023, transport was the largest contributor to US greenhouse gas emissions (accounting for 29% of total emissions) and the second largest contributor to Canadian emissions (22.6%).
- The United States was the world's largest emitter of transport greenhouse gases in 2023, contributing nearly a quarter of the global total (excluding international aviation and shipping), at 1,735 million tonnes of CO_2 equivalent.
- Road transport continued to dominate North American transport greenhouse gas emissions, contributing 81.7% of US transport emissions in 2022 and 62% of Canada's in 2023.
- In Canada, road passenger transport was responsible for 54.4% of transport emissions, road freight transport for 24.3%, and maritime transport for 3%, in 2021 (latest data available).
- In the United States, freight transport was responsible for 31.9% of transport greenhouse gas emissions in 2022, up from only 27% in 2010.
- The average energy efficiency of new light-duty vehicles sold in the United States reached its highest value in 2022, marking the largest improvement in nine years, but it still lagged behind other countries.
- The carbon intensity of electricity has improved steadily in North America in recent years.
- Several North American cities experienced among the highest congestion levels globally in 2024, with motorists in the region's 10 most congested cities facing more than 60 hours of traffic delay annually.
- The transport sector was responsible for around 12.6% of North America's air pollution in 2019, more than double the global average (6%).
- Transport contributed 15% of US air pollutant emissions in 2019 and 9.8% in Canada – resulting in 2.29 premature deaths per 100,000 people in the United States (consistent with the global average) and 1.01 premature deaths in Canada (half the global average).
- North America recorded 13.2 road casualties per 100,000 people in 2021, close to the global average of 15 casualties per 100,000 people.
- Road traffic fatalities and injuries accounted for 1.9% of Canada's GDP and 5% of the US GDP in 2021.
- Less than 40% of the road length assessed in North America meets the recommended three-star or better safety standard for pedestrians and cyclists, compared to 60% for motorcyclists and more than 80% for vehicle occupants.
- The United States has experienced a record number of climate-induced disasters, with 28 events in 2023 costing USD 96 billion in damages and 27 events in 2024 costing USD 182.7 billion.
- Climate change threatens the supply networks of Canada's Indigenous communities, with around 50 communities (56,000 people) relying on a 6,000-kilometre winter road network.

KEY FINDINGS

Policy and investment developments

- Canada continued to advance its 2019 vision calling for "a transport system…that is recognised worldwide as safe and secure, efficient and environmentally responsible", including by integrating the Sustainable Development Goals (SDGs) into nationwide strategies starting in 2023.
- In 2024, Canada announced its 2030 Emissions Reduction Plan, which calls for a 23% reduction in transport greenhouse gas emissions from 186 million tonnes of CO_2 equivalent in 2019 to 143 million tonnes by 2030. Additional government actions explore opportunities for rail, aviation, maritime transport, and other modes, and address zero emission vehicles and fuels, electrification and charging infrastructure.
- In January 2023, the United States released its inter-agency National Blueprint for Transportation Decarbonization, a landmark strategy to drastically reduce transport greenhouse gas emissions towards net zero by 2050.
- The Bipartisan Infrastructure Law of 2021 authorised USD 1.2 trillion for transport and infrastructure investment across the country, including USD 550 billion for new projects between 2022 and 2026.
- The Inflation Reduction Act, signed in August 2022, was the largest investment focused on climate change in US history. Transport-related investments under the Act focused mainly on providing tax incentives to electric vehicle owners as well as auto manufacturers.
- In January 2025, the Trump administration halted the disbursements of funds through the Inflation Reduction Act and the Bipartisan Infrastructure Law through an executive order, which eliminated electric vehicle mandates.
- The United States and Canada have both submitted to the United Nations their third Nationally Determined Contributions (NDCs) towards reducing emissions under the Paris Agreement, which include transport actions. The two countries also released new national adaptation strategies between 2023 and 2025.
- In the United States, policy for clean freight transport advanced with the release of the National Zero-Emission Freight Corridor Strategy in March 2024 and the hosting of the "first-ever White House Sustainable Freight Workshop" in December 2024.
- US land use policy reforms have supported a shift towards integrated transport planning in various jurisdictions.
- In 2023, fossil fuel subsidies in North America totalled USD 2,172 per capita, nearly 3 times the global average (USD 813) and more than 10 times the African average (USD 199). The region's fossil fuel subsidies are projected to rise 17% between 2023 and 2030, further undermining climate and sustainability efforts.
- In January 2025, New York City became the first US city to implement congestion pricing, with each passenger vehicle that enters the "Congestion Relief Zone" facing a daily charge of up to USD 9 at peak times.
- North America has pledged greater investments in infrastructure for walking and cycling.

KEY FINDINGS

- Very few new public transport services were launched in North America between 2022 and 2024. Additional developments in US public transport were focused on fare-free programmes.
- North American rail systems have not seen significant expansion in years. In February 2025, Canada announced plans to build its first high-speed rail between Quebec and Toronto. In the United States, new ambitions set in 2024 aimed to improve the rail network and address major challenges including the lack of electrified railways, high-speed rail services and strong labour protections for rail workers.
- Progress was made in 2024 to improve US vehicle emission standards, but this was rolled back in 2025 under the new administration.
- In 2025, advances in vehicle technologies continued in Canada but were largely rolled back in the United States. Canada finalised its Electric Vehicle Availability Standard in 2023, requiring that 100% of new light-duty vehicles sold in the country be zero-emission by 2035.
- US states have continued their ambition on sustainable, low-carbon transport by focusing mainly on cleaner vehicle fleets. California has spearheaded the nationwide transition to zero-emission vehicles, although in May 2025 the US Senate repealed waivers that allow the state to set its own air pollution standards for road vehicles.
- The Trump administration's cancellation of US federal funding for electric vehicle activities will reportedly lead to job losses in the transport sector, including in electric vehicle production, as well as negative health outcomes; however, efforts may continue at the state level.
- Proposed increases in US import tariffs could have significant impacts on the automobile industry, especially on the electric vehicle industry, although such tariffs are not necessarily new in the region.
- Major North American airlines took initial steps towards the adoption of sustainable aviation fuel (SAF) in support of their long-term sustainability strategies.

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Context, challenges and opportunities

North America comprises the high-income economies of Canada and the United States as well as the territories of Bermuda (United Kingdom), Greenland (Denmark) and Saint Pierre and Miquelon (France). This regional overview focuses on Canada and the United States, both of which have high personal motorisation rates, strong contrasts between urban and rural transport, and high levels of polluting transport emissions that contribute to climate change. North America accounted for 5% of the global population in 2023 yet contributed 27% of the world's transport greenhouse gas emissions – 1.9 gigatonnes of carbon dioxide (CO_2) equivalent – the second highest share among regions.[2]

Between 2023 and early 2025, North America experienced numerous severe weather events accelerated by climate change. Record-breaking wildfires in Canada in 2023 burned more than 15 million hectares of land (an area roughly the size of the US state of Florida), releasing CO_2 emissions comparable to the annual emissions of India, the world's third largest emitter globally.[3] The fires were likely exacerbated by climate change, as 2023 was the warmest and driest year on record in Canada since at least 1980.[4]

In the United States, the deadliest wildfire in modern history occurred in August 2023 in Hawaii, where the Lahaina Fire claimed 102 lives and destroyed large parts of Maui.[5] The Eaton and Palisades wildfires in the Los Angeles area in January 2025 were the second and third most destructive wildfires in California's history as of March 2025, destroying more than 16,000 structures, burning 15,000 hectares and resulting in 29 fatalities.[6] Severe natural disasters, exacerbated by climate change, have destroyed transport infrastructure and disrupted transport systems. Meanwhile, the sector remains a major source of greenhouse gas emissions in the region, further accelerating climate change and its associated impacts.

Between 2021 and 2024, the US Biden administration introduced a range of policies, strategies and frameworks that marked the first steps towards a comprehensive decarbonisation of transport in the United States. Many of these measures were described as "landmark" activities, spanning all major areas including overall transport, passenger transport and freight transport. However, in 2025 the Trump administration took steps to reverse or pause many of these efforts.

Greater progress on transport climate action and sustainability has been made in Canada than in the United States. While US national efforts have stagnated, individual states and cities have continued to advance climate- and sustainability-related initiatives in transport. Meanwhile, Canada has demonstrated at the national level how transport sustainability and decarbonisation can go hand-in-hand by establishing new funding streams for public transport, walking and cycling, and electric vehicles, as well as linking activities to the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs).

North America's efforts on sustainable, zero-emission transport have advanced amid growing uncertainty about the durability of policies and legislation on climate, equity and sustainable development. Public budgets have faced increasing strain due to high national debt levels, while shifting policy and expenditure priorities raise concerns about the long-term commitment to sustainability goals. As governments grapple with competing demands, the question remains whether recent progress – particularly in electric mobility, infrastructure investment, and more and better collective transport options – can be sustained in the face of fiscal tightening and evolving political agendas.

Demand, use and access

Transport is a key pillar of the North American economy. In Canada, the sector directly contributed 4% (USD 61.95 billion or CAD 88.5 billion) to the gross domestic product (GDP) in 2023 and employed 844,000 people in 2024.[7] In the United States, transport accounted for 6.5% (USD 1,826.5 billion) of GDP in 2023 and employed 6.7 million people as of January 2025.[8]

- The largest US employment in transport as of January 2025 was in warehousing and storage (1.8 million people) and trucking (1.5 million people), while public transport employed 490,000 people.[9] The job growth rate in the US public transport industry was twice the national average in 2023.[10]
- In Canada, the unemployment rate in the transport sector in 2023 was 2.8%, nearly half the national average of 5.3%.[11] In the United States, the transport unemployment rate remained slightly above the national rate until January 2025, when it reached 3.6%, compared to 4.4% nationally.[12]
- Women accounted for 25% of the transport-related workforce in Canada in 2023.[13] In the United States, women made up 28.5% of those employed in transport and storage, the highest share among all regions and more than double the global average of just 15.6% in 2023.[14]

Access to sustainable, zero-emission transport, especially public transport and safe walking and cycling, remains limited in the region. In 2020, only 57% of the US urban population had convenient access to public transport – above the global average of 52%, yet below Canada's share of 77%.[15]

- Only 30% of people in the United States lived within walking distance (within one kilometre) of both healthcare and education services in 2023, compared to 50% of people in Canada.[16]
- Just 9% of the US population lived within 300 metres of a protected bike lane in 2023, compared to 29% in Canada.[17]
- A 2023 survey showed that in Canada, 38% of Black workers and 29% of mixed-race workers relied on public transport for commuting.[18]
- Access to all-weather roads is an issue of growing importance for Indigenous communities in Canada's remote regions. The Northwest Territories, Yukon and Nunavut account for a large share (40%) of the country's land area but only 1% of its population.[19] In the Northwest Territories, 35% of the road network consists of ice roads that rely on stable cold conditions to remain usable.[20]

Freight transport by road, pipeline and rail continued to play a significant role in economic activity in North America. Freight activity in the United States totalled 7,816 billion tonne-kilometres in 2022, a level similar to 2017 but still 3.7% below the all-time high of 2018.[21] US freight activity grew 1.7% in 2021 and 1.8% in 2022, driven mainly by an increase in rail freight.[22]

- In Canada, road freight accounted for 50% of total freight activity, followed by pipelines at 36% and railways at 14%, as of 2014 (latest data available).[23] Since then, rail freight activity has increased 155%, reaching 463.9 billion tonne-kilometres in 2022.[24]
- Road freight accounted for the largest share of US freight activity (40.6%), followed by rail (28.6%) and pipelines (19.9%).[25] In 2022, US pipeline freight activity reached its highest level since 2000.[26]
- In 2023, 1.7 billion metric tonnes of goods were transported by rail in the United States, with fossil fuels accounting for the largest share at 43%.[27] The highest-value commodity transported by US rail in 2022 was vehicles, at a total value of USD 125.6 billion, three times above the commodity value of fossil fuels, the second largest category.[28]
- The United States added more than 100,000 kilometres of pipelines for liquid fuels between 2010 and 2024, and several natural gas pipelines were completed in recent years.[29]

Across the region, passenger transport activity increased again after the sharp declines experienced during the COVID-19 pandemic in 2020. Passenger transport activity in the United States increased 12% in 2021 but then fell 2% in 2022.[30]

- US passenger transport activity declined from 10,290 billion passenger-kilometres in 2019 to 8,490 billion in 2020, before rebounding to 9,550 billion in 2021.[31] Passenger activity fell to 9,324 billion passenger-kilometres in 2022, likely due to ongoing concerns about a volatile economy.[32]
- Domestic aviation in the United States grew 9% in 2023 to a record high of 1.25 billion passenger-kilometres.[33]
- Although all modes of US passenger transport experienced steady growth in 2022, road transport activity on highways fell 5.8%.[34]

Rail passenger transport in the United States grew 19% in 2023 to reach 9,376 million passenger-kilometres; rail ridership was up 104% from the historic low of 4,603 million passenger-kilometres in 2021 but still 10% below the 2019 level (10,440 million passenger-kilometres).[35] A total of 28.5 million US rail trips were taken in 2023, with nearly every route experiencing double-digit growth in ridership that year.[36] Rail passenger activity in Canada doubled in 2022 – from 542 million to 1,228 million passenger-kilometres – but was still below the 2019 level of 1,729 million passenger-kilometres.[37]

Four out of five workers in North America commuted primarily by private vehicle in 2022.[38]

- As of 2022, 140 million people in the United States commuted to work daily, while 20 million worked remotely (15.2% of the workforce).[39] Compared to 2019, this was a shift of 9 million people from office work to remote work.[40]
- More than three-quarters (77.3%) of people in the United States used their private vehicle for commuting in 2022, with 88% of them driving alone.[41] Only 2.9% of US workers walked or biked to work in 2023.[42]
- The average commute time was 26.4 minutes in both the United States (2022 data) and Canada (2024 data).[43]
- In Canada, the number of commuters has continued to increase, totalling 16.5 million in May 2024.[44] The vast majority of people in the country (81.5%) used a private vehicle to travel to work that month.[45]
- In Canada, 18.7% of employed people worked mostly from home as of May 2024, down 3.7 percentage points compared with May 2022.[46]

US public transport ridership increased 17% in 2023 – reaching 6.9 billion trips and 56 billion passenger-kilometres – but it still did not recover from pandemic-related declines in 2020 and 2021.[47] In Canada, passenger trips on public transport grew 12% between January 2023 and January 2024 – to a total of 127 million trips – but was still 29% below January 2020 levels, with revenues down 20%.[48]

- As of 2023, public transport use in the United States remained below 1980 levels, with 7 billion passenger trips recorded, compared to 9 billion in 2019, before the COVID-19 pandemic.[49]
- New York City accounted for nearly half (46%) of all US public transport trips in 2023; however, the city's ridership

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remained at around half of its 2019 level.[50]

Walking and cycling play important roles in regional transport but are often overlooked and undercounted. During a typical week, only around 7% of people in the United States rely entirely on non-auto modes of transport, whereas 65% use a car plus another mode at least once a week, around half use non-auto modes at least three times a week, and 25% use a non-auto mode seven or more times each week.[51] In 2022, less than 8% of all US trips were made by walking or cycling, compared with 87% using primarily personal motorised vehicles (cars, vans, trucks, motorcycles).[52] However, large disparities exist between rural and urban areas, as well as within urban regions.[53] Walking and cycling remain undercounted in key statistics due to methodological issues that ignore multi-modality and the trips made to and from public transport.[54]

- Although 2.2 billion bicycle trips were taken in the United States in 2022, they totalled fewer than 10,000 million passenger-kilometres, representing just 0.1% of all passenger travel activity.[55] Walking accounted for an estimated 25,000 million US passenger-kilometres (0.28% of total passenger travel activity) in 2022, down sharply from 54,156 million passenger-kilometres in 2017.[56]
- The 2022 National Household Travel Survey found that 6.9% of all US trips were made by walking and 0.9% by bicycle.[57] More than half (52%) of US cycling trips in 2022 were for social or recreational purposes.[58]
- New York City had the highest share of sustainable transport modes among major US cities in 2022, with 44% of all trips conducted by walking and 2.6% by bicycle, compared to 34% by vehicles.[59]

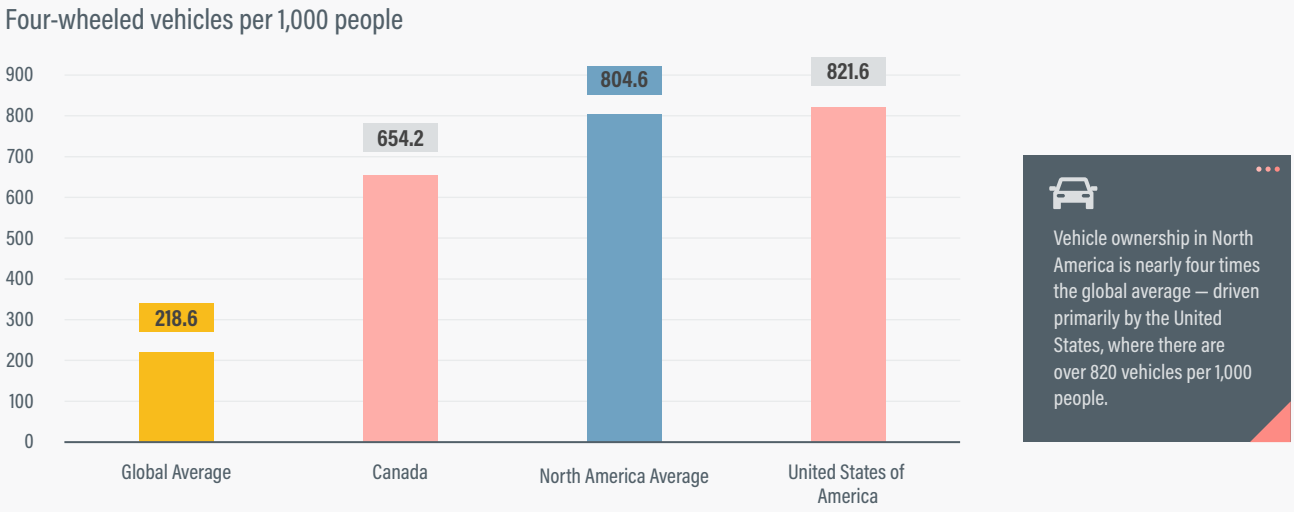
Shared micromobility (bicycles and electric scooters) in North America reached a new record high in 2023, with 157 million rides taken in the United States, surpassing the 147 million rides recorded in 2019.[60] However, fares for annual passes increased 20-30% between 2019 and 2023, raising growing concerns about affordability.[61]

- Shared micromobility grew nearly 20% in the United States and Canada in 2023.[62]
- In recent years, bike share fares have exceeded public transport fares, and prices for shared electric bicycles and electric scooters were even higher, despite offering shorter trips than conventional bike sharing services.[63]

Although average US petrol prices have fallen from their historic peak in 2022, transport costs place a higher household burden on North America than most regions due to its high dependency on private vehicles.

- The average US petrol price fell to USD 0.87 per litre (USD 3.3 per gallon) in 2024, down from more than USD 1.05

FIGURE 1. Motorisation rates per 1,000 people in North America, 2022



Source: See endnote 69 for this section.

per litre (USD 4 per gallon) in 2022 and USD 0.92 per litre (USD 3.5 per gallon) in 2023.[64] US petrol prices remained the lowest among member countries of the Organisation for Economic Co-operation and Development (OECD) in 2024.[65]

- On average, US households allocated 16% of their total expenditures to transport in 2023, compared to 11% for European households, despite facing higher taxes, priced parking and toll roads in Europe.[66]
- Between 2003 and 2019, a link was found between rising US fuel prices and the increased use of public transport, walking, and cycling – mainly in urban areas, as rural commuters often lack access to public transport networks.[67]
- The typical US pattern of rising petrol prices leading to reduced vehicle-kilometres travelled has been disrupted since 2020. Both petrol prices and vehicle-kilometres travelled were exceptionally low in 2020 and then increased sharply in 2021; in early 2022, vehicle-kilometres travelled declined before petrol prices dropped, leading to a reduction in total passenger-kilometres for road transport.[68]

The region's motorisation levels (covering four-wheeled motor vehicles) remained at an all-time high in 2022, at four times the global average and 15 times higher than in Africa (Figure 1).[69] Canada had a motorisation rate of 654 vehicles per 1,000 people in 2022, while the rate in the United States was even higher at 822 vehicles per 1,000 people.[70]

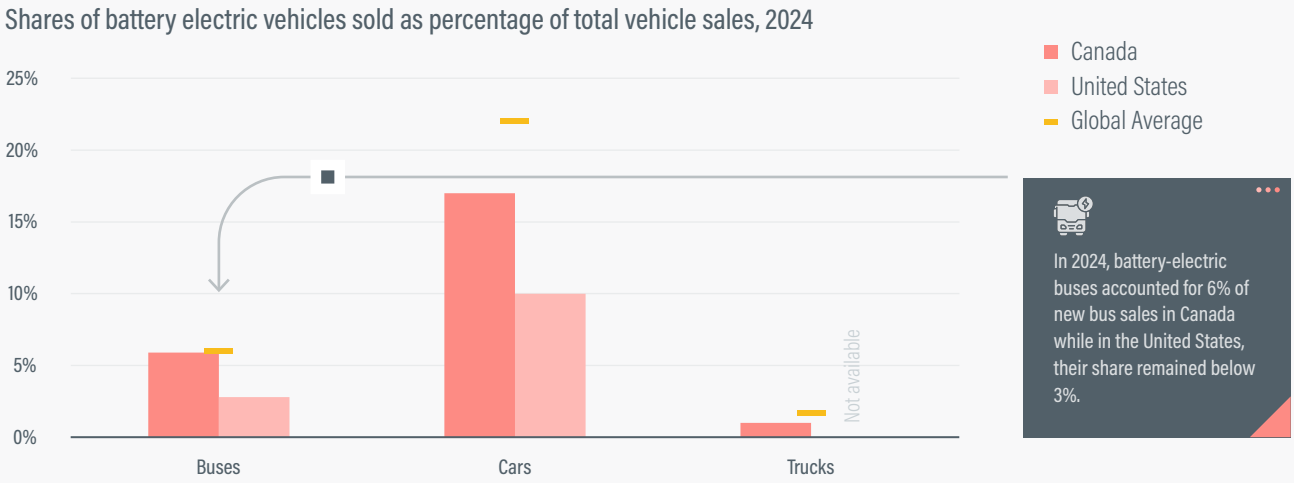
Vehicle sales in Canada increased 13% in 2023 to 1.76 million units.[71] The US vehicle market showed similar growth, with sales totalling 16 million units that year.[72]

- In the United States, sport utility vehicles (SUVs) reached a record-high market share of 57% for the model year 2023 production (including both car-based and truck-based SUV models).[73]
- As of mid-2023, the new vehicle market in the United States was described as the "least affordable car market in modern history", with only 8% of new vehicles retailing for under USD 30,000.[74]

Electric passenger car sales in North America continued their near-exponential growth until 2023, then grew modestly in 2024.[75] The United States accounted for 11% of global battery electric passenger car sales in 2024, surpassing 1 million units for the first time with 1.1 million new registrations in 2023 and 1.2 million in 2024.[76] After a strong increase of 37.5% in 2023, US sales of battery electric cars grew only 9% in 2024.[77] In Canada, sales increased 43% in 2023 and 46% in 2024, rising from 91,000 in 2022 to 190,000 units in 2024.[78] Battery electric cars comprised 17% of total vehicle sales in Canada and 10% in the United States in 2024 (Figure 2).[79]

- Between 2022 and 2024, the share of electric cars in the total car stock doubled from 1.3% to 2.7% in the United States and from 1.7% to 4.2% in Canada.[80]
- The share of battery electric vehicles in the United States is projected to reach only 16% in 2030 and 21% in 2050.[81]

FIGURE 2. Shares of battery electric vehicles sold in Canada and the United States, 2024



Source: See endnote 79 for this section.

This is well below the pathway needed to achieve the goals of the Paris Agreement, which requires that electric vehicle sales exceed 60% globally by 2030 and that no new cars with internal combustion engines are sold after 2035.[82]

- US interest in electric vehicles appeared to wane in 2024, as consumer surveys showed a 10-percentage point decline in the share of people considering an electric vehicle for their next vehicle purchase (to only 30-34% of Americans).[83]

More electric buses and heavy-duty trucks have entered service in North America, including in both municipal and private fleets.

- US adoption of zero-emission buses surged 100% in 2022, with 2,400 electric and 140 fuel-cell electric buses sold.[84] By 2023, diesel-powered buses made up less than half of the US public transport fleet, and hybrid plug-in electric buses had an 18% market share.[85] In total, 9,500 electric buses were in use in the United States in 2024.[86]
- Electric buses accounted for 24% (790 units) of all buses sold in Canada in 2023, falling to just 5.9% (210 buses) in 2024.[87]
- As of 2024, 5,300 electric trucks (1.2% of all sold trucks) were operating on Canada's roads.[88]
- In 2023, DHL announced the deployment of its first Class 8 electric trucks, supporting the company's 2030 target for a North American supply chain based on 30% zero- or near-zero emission vehicles.[89]
- Amazon deployed 35 Class 8 electric trucks in southern California in 2024, accompanied by the installation of more than 45 direct current fast chargers across 11 sites.[90]
- In 2024, Hyundai completed the largest single commercial deployment of hydrogen fuel cell electric trucks, delivering 30 Class 8 units to a freight company in northern California.[91]

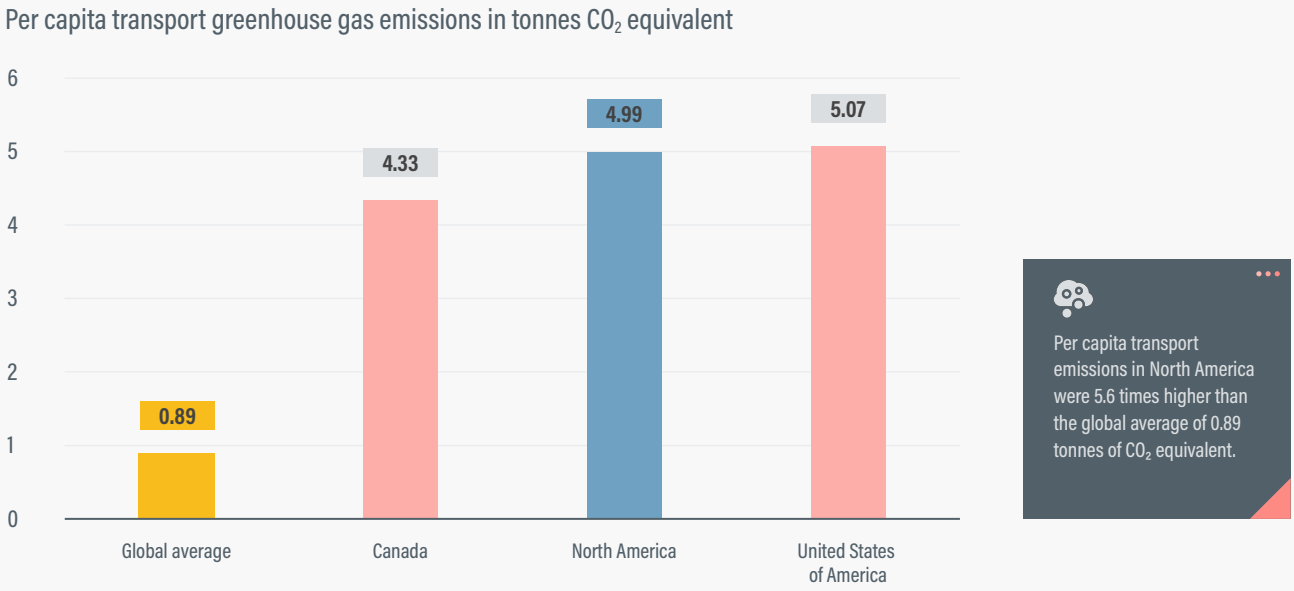
Sustainability and climate trends

In 2023, North America was responsible for 26.7% of global transport greenhouse gas emissions (excluding international aviation and shipping), the second highest regional share after Asia (40.3%).[92] Transport emissions in North America increased 0.72% in 2023 – reaching 1.9 gigatonnes of CO_2 equivalent – but were still below 2019 levels.[93] Between 2019 and 2023, the region's annual emissions growth rate was the third lowest globally due to already very high emission levels.[94] (Europe achieved absolute reductions in transport emissions in 2023, while Africa's grew only 0.11%.[95])

Per capita transport emissions totalled 4.3 tonnes of CO_2 equivalent in Canada and 5.1 tonnes in the United States in 2023 – roughly five times higher than the global average of 0.9 tonnes (Figure 3).[96] Key factors behind high per capita emissions are high private motorisation levels and long travel distances. Light-duty vehicles had an average fuel consumption of 8.5 litres of petrol-equivalent per kilometre in Canada and 8.4 litres in the United States in 2022.[97]

In 2023, transport was the largest contributor to US

FIGURE 3. Per capita transport greenhouse gas emissions in North America, 2023



Source: See endnote 96 for this section.

greenhouse gas emissions (accounting for 29% of total emissions) and the second largest contributor to Canadian emissions (22.6%).[98] The transport sector became the largest US emitter in 2019 when it surpassed the power sector, which benefited from significant increases in renewable energy.[99] In Canada, transport was the largest greenhouse gas-emitting sector until 2005, when it became the second largest after fuel exploitation.[100]

The United States was the world's largest emitter of transport greenhouse gases in 2023, contributing nearly a quarter of the global total (excluding international aviation and shipping), at 1,735 million tonnes of CO_2 equivalent.[101] US transport greenhouse gas emissions fell 14% in 2020 due to the effects of the COVID-19 pandemic, and as of 2023 they remained at 2015/16 levels.[102] In Canada, transport emissions have plateaued at around 170 million tonnes of CO_2 equivalent since 2007, totalling 169 million tonnes in 2023.[103]

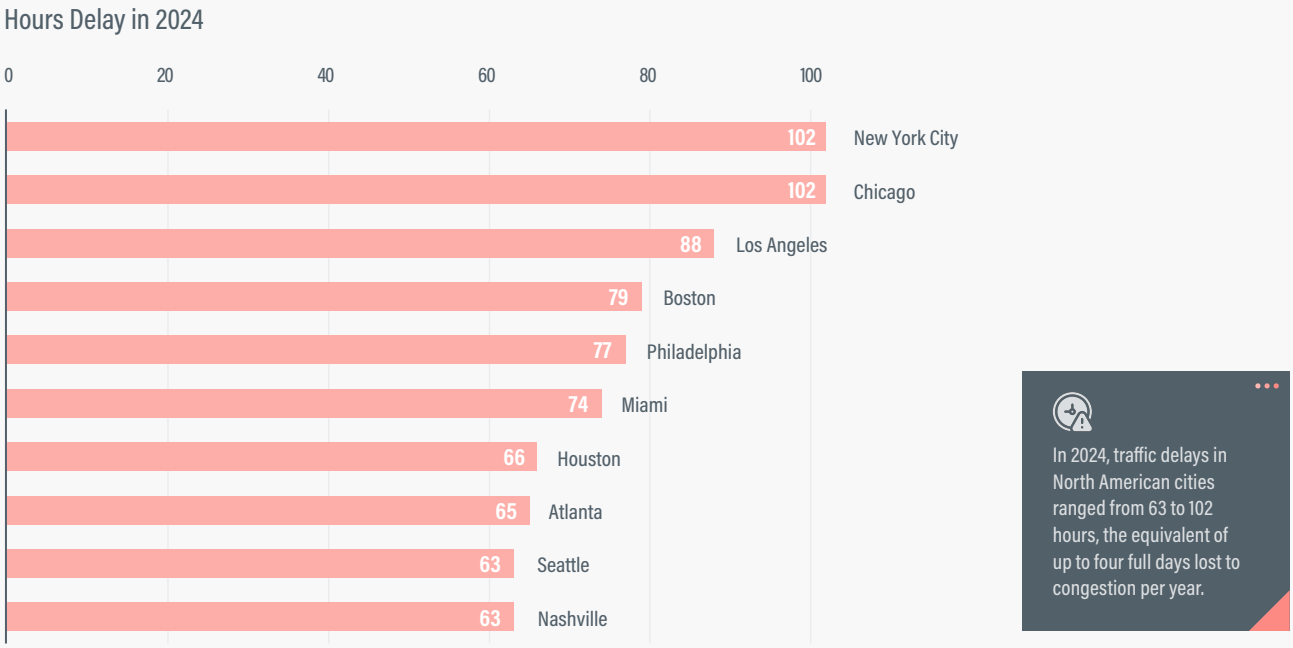
Road transport continued to dominate North American transport greenhouse gas emissions, contributing 81.7% of US transport emissions in 2022 and 62% of Canada's in 2023.[104] In Canada, road passenger transport was responsible for 54.4% of transport emissions, road freight transport for 24.3%, and maritime transport for 3%, in 2021 (latest data available).[105] In the United States, freight transport was responsible for 31.9% of transport greenhouse gas emissions in 2022, up from only 27% in 2010.[106]

- Canada's second highest emitter of transport emissions in 2023, at 29%, was pipelines and "vehicles not licensed to operate on roads", including all-terrain vehicles and dirt bikes.[107]
- Since 2015, road freight transport greenhouse gas emissions in Canada have been affected by the economic slowdown of 2018 and the COVID-19 pandemic of 2020, resulting in lower emissions compared to the 2010s.[108]
- In 2022, trucks contributed the largest share of US freight-related emissions at 72.2%, followed by pipelines at 12.2%.[109]
- With an 18.9% increase between 2010 and 2022, freight was the main driver of growth in US transport emissions.[110]

The average energy efficiency of new light-duty vehicles sold in the United States reached its highest value in 2022, marking the largest improvement in nine years, but it still lagged behind other countries.[111]

- The average energy efficiency of new vehicles in the United States increased 4% between 2020 and 2022 – to reach 8.4 litres of petrol-equivalent per 100 kilometres in 2022 – although this was still well above the European average of 5.4 litres.[112]
- For US vehicle models produced in 2023, real-world CO_2 emissions showed significant improvements. Due largely to the higher share of battery electric vehicles among car-based SUVs (36%), this category emitted 190 grams of

FIGURE 4. Hours of annual average traffic delays in major North American cities, 2024



Source: See endnote 118 for this section.

CO_2 per mile.[113] In contrast, truck-based SUVs emitted 356 grams of CO_2 per mile, while pick-up trucks recorded even higher emissions at 432 grams per mile.[114]

The carbon intensity of electricity has improved steadily in North America in recent years. Increasing the share of renewable and low-carbon energy sources in the region's power grids can help maximise the positive impacts of the electric vehicle transition.

- In Canada, the carbon intensity of electricity improved 27% between 2010 and 2022 – reaching 156.8 grams of CO_2 equivalent per kilowatt-hour (kWh) – but then worsened to 174.8 grams of CO_2 per kWh in 2024.[115]
- The United States recorded a 12% improvement in carbon intensity between 2019 and 2024, although levels remained high at 384 grams of CO_2 equivalent per kWh in 2024.[116] Progress was due largely to a 10-fold increase in US solar power generation between 2015 and 2024, alongside a halving of coal use.[117]

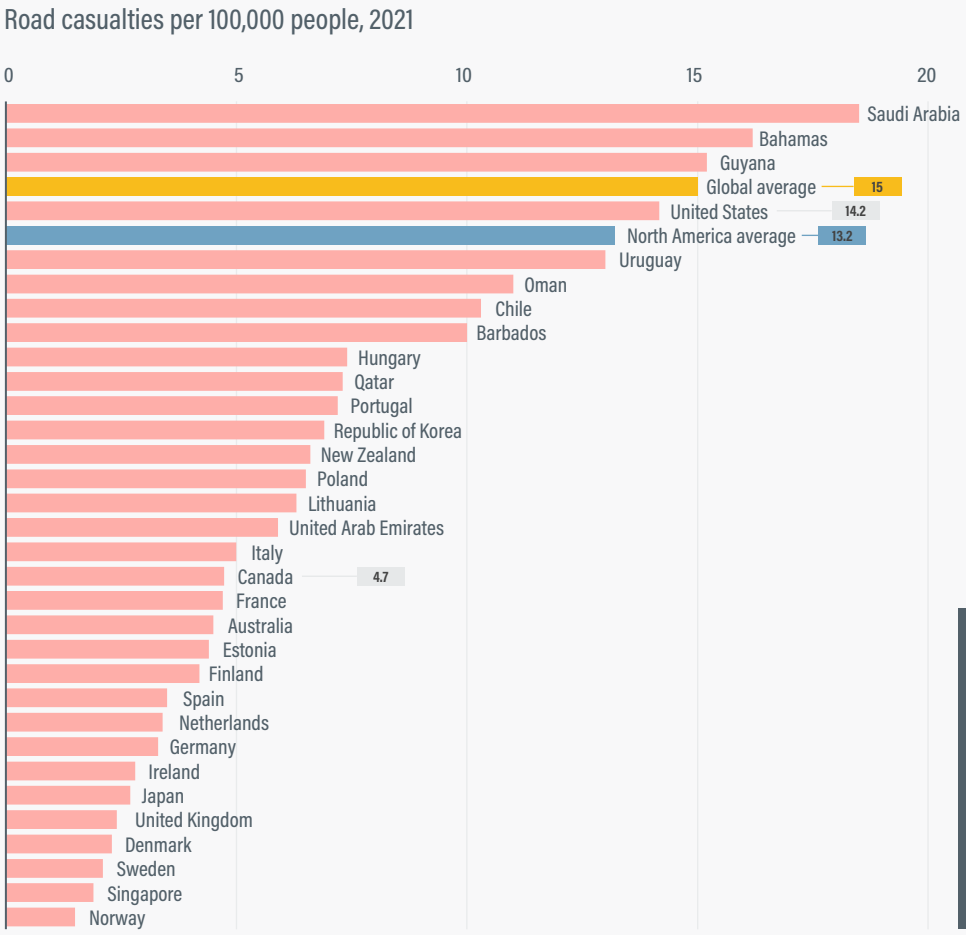
Several North American cities experienced among the highest congestion levels globally in 2024, with motorists in the region's 10 most congested cities facing more than 60 hours of traffic delay annually (Figure 4).[118] These data and impacts focus mainly on private vehicle commuters. In cities with high delays but lower overall shares of car use (such as New York City and Boston), the average delay (and thus congestion cost) on a per capita basis is lower than in more car-dependent regions (such as Atlanta and Houston).[119]

- New York City had the highest average level of traffic delay worldwide in 2023 (101 hours) and the second highest level in 2024 (102 hours), after Istanbul (Türkiye) at 105 hours.[120]

The transport sector was responsible for around 12.6% of North America's air pollution in 2019, more than double the global average (6%).[121] Transport contributed 15% of US air pollutant emissions in 2019 and 9.8% in Canada – resulting in 2.29 premature deaths per 100,000 people in the United States (consistent with the global average) and 1.01 premature deaths in Canada (half the global average).[122]

North America recorded 13.2 road casualties per 100,000 people in 2021, close to the global average of 15 casualties per 100,000 people (Figure 5).[123] Road traffic fatalities and injuries accounted for 1.9% of Canada's GDP and 5% of the US GDP in 2021.[124] Less than 40% of the road length assessed in North America meets the recommended three-star or better safety standard for pedestrians and cyclists, compared to 60% for motorcyclists and more than 80% for vehicle occupants.[125]

FIGURE 5. Road casualties per 100,000 people in selected high-income countries, 2021



In 2021, the United States had one of the highest road traffic fatality rates among high-income countries — despite being slightly below the global average.

Source: See endnote 123 for this section.

- Among high-income countries, the United States had one of the most dangerous road safety records in 2021, ranking just behind Saudi Arabia, the Bahamas and Guyana.[126]
- Road traffic fatalities have been rising in the United States.[127] In 2021, 42,939 people died in US road crashes, and pedestrian fatalities reached a record high.[128] Around 20% of the people killed in US road traffic crashes in 2021 were pedestrians or cyclists.[129]
- The United States recorded 14.2 road casualties per 100,000 people in 2021, well above the average rate across high-income countries (7.7 road casualties) and in Europe (5.8 road casualties).[130]
- Canada had 4.7 road casualties per 100,000 people in 2021, with around 20% of those killed being pedestrians or cyclists.[131]

The United States has experienced a record number of climate-induced disasters, with 28 events in 2023 costing USD 96 billion in damages and 27 events in 2024 costing USD 182.7 billion.[132] This was up sharply from an annual average of nine climate-induced disaster events between 1980 and 2024.[133]

Climate change threatens the supply networks of Canada's Indigenous communities, with around 50 communities (56,000 people) relying on a 6,000-kilometre winter road network.[134] The winter of 2024-25 was too warm for sufficient surface freezing, disrupting vital deliveries.[135]

Policy and investment developments

The change in administration in the United States has affected the outlook for equitable, sustainable, and zero-emission transport in the country, resulting in the halting of several policies and a reversal in ambition. In Canada, it remained unknown (as of the publication of this report) whether the new administration would maintain or revisit the approach of the outgoing administration.

Canada continued to advance its 2019 vision calling for "a transport system...that is recognised worldwide as safe and secure, efficient and environmentally responsible", including by integrating the Sustainable Development Goals (SDGs) into nationwide strategies starting in 2023.[136]

- In its 2022-2026 Federal Sustainable Development Strategy, Canada's first strategy to outline implementation of all SDGs, Transport Canada committed to advancing six SDGs: SDG 10 (Reduced Inequalities), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 14 (Life Below Water) and SDG 16 (Peace, Justice and Strong Institutions).[137]
- Under SDG 11, the target is to increase – from 60% in 2005 to 85% by 2030 – the share of the population living in areas where air pollutant concentrations meet or fall below the Canadian Ambient Air Quality Standards.[138]

In 2024, Canada announced its 2030 Emissions Reduction Plan, which calls for a 23% reduction in transport greenhouse gas emissions from 186 million tonnes of CO_2 equivalent in 2019 to 143 million tonnes by 2030.[139] Additional government actions explore opportunities for rail, aviation, maritime transport, and other modes, and address zero emission vehicles and fuels, electrification and charging infrastructure.[140] The latter include: zero-emission vehicle sales mandates for light-duty vehicles, an integrated strategy to support zero-emission medium- and heavy-duty vehicles, investments in charging infrastructure, purchase incentives, heavy-duty vehicle retrofitting, hydrogen demonstration projects and government fleet electrification.

In January 2023, the United States released its inter-agency National Blueprint for Transportation Decarbonization, a landmark strategy to drastically reduce transport greenhouse gas emissions towards net zero by 2050.[141] The strategy outlines how to "deliver safe, effective, affordable, and sustainable solutions to existing and emerging challenges" and lays out targets and actions for 2030, 2040 and 2050.

- The strategy summarises actions in three areas: "convenient" – improve community design and land-use planning (planning, telework, e-commerce, travel demand management, active mobility); "efficient" – increase options to travel more efficiently (pool riding, operational improvement, public transport, rail and shipping, vehicle fuel economy); and "clean" – clean electricity, sustainable biofuels, e-fuels, clean hydrogen).[142]
- The strategy highlights that the Infrastructure Investment and Jobs Act (Bipartisan Infrastructure Law) and the Inflation Reduction Act are essential enablers towards a safer and more sustainable US transport system.[143] The Inflation Reduction Act supports climate action, while the Bipartisan Infrastructure Law aims to improve infrastructure in the United States.[144]

The Bipartisan Infrastructure Law of 2021 authorised USD 1.2 trillion for transport and infrastructure investment across the country, including USD 550 billion for new projects between 2022 and 2026.[145] The Law supported "historic investments in transport" and the opportunity to embrace equity and sustainability in transport investments.[146] However, a review of more than 56,000 funded projects in early 2024 (marking the halfway point of the Law) revealed that 50% of the investments were allocated to the modernisation or expansion of highways.[147] Less than 20% were directed towards public transport and passenger rail initiatives, suggesting that the Law might result in additional emissions of around 178.5 million tonnes of CO_2 equivalent by 2040.[148] The highway expansions that are already obligated for spending will add an estimated 69 million tonnes by 2040.[149]

The Inflation Reduction Act, signed in August 2022, was the largest investment focused on climate change in US history.[150] Transport-related investments under the Act focused mainly on providing tax incentives to electric vehicle owners as well as auto manufacturers. Following the Act's passage, manufacturers announced plans to invest around USD 125 billion in US electric vehicle and battery manufacturing.[151]

In January 2025, the Trump administration halted the disbursements of funds through the Inflation Reduction Act and the Bipartisan Infrastructure Law through an executive order, which eliminated electric vehicle mandates.[152] The stated purpose was to "promote true consumer choice" and to remove any "ill-conceived government-imposed market distortions that favour EVs over other technologies".[153]

The United States and Canada have both submitted to the United Nations their third Nationally Determined Contributions (NDCs) towards reducing emissions under the Paris Agreement, which include transport actions. The new US NDC, which updates efforts in the previous (2021) NDC, was submitted in December 2024, just before President Trump signed a January 2025 order to again withdrew the country from the Paris Agreement.[154] Canada submitted its third-generation NDC in February 2025.[155]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- The US NDC of 2024 features an economy-wide target to reduce net greenhouse gas emissions 61-66% below 2005 levels by 2035.[156] On transport, the NDC highlights the roles of the Inflation Reduction Act and the Bipartisan Infrastructure Law to shift towards cleaner and convenient transport and to scale up domestic manufacturing.[157] The focus is on electrification across all modes, increasing public transport and walking and cycling options, and supporting low-carbon fuels.[158]
- Analysis suggests that, to be aligned with the Paris Agreement's target of keeping global temperature rise below 1.5 degrees Celsius, the new US NDC should have aimed for reductions of 65% by 2030 and 80% by 2035, compared with 2005 levels.[159]
- Canada's new NDC sets an economy-wide target to reduce emissions 45-50% below 2005 levels by 2035, and highlights the decarbonisation of road transport and the phase-out of fossil fuel-powered cars by 2035.[160]
- Canada's NDC features additional targets for several provinces and territories, including increasing the sales share of light-duty zero-emission vehicles in British Columbia to 90% by 2030 and 100% by 2035; reducing transport emissions in Prince Edward Island 25-30% by 2030; and reducing road transport emissions in Yukon 30% below 2010 levels.[161]

For the latest analysis of transport commitments in NDCs, including those expected ahead of COP30, see the NDC Transport Tracker by GIZ and SLOCAT*, a database on ambition, targets and policies in NDCs and Long-Term Strategies.*[162]

The two countries also released new national adaptation strategies between 2023 and 2025. The United States submitted a National Adaptation Plan (NAP) to the United Nations in January 2025 (under the Biden administration), and Canada released a National Adaptation Strategy in 2023.[163]

- The US NAP is an extensive document combining several strategies, such as the National Climate Resilience Framework (2023) and the Department of Transportation's 2024-2027 Climate Adaptation Plan (2024).[164]
- Canada's National Adaptation Strategy outlines that, starting in 2024, all new federal infrastructure funding programmes should reflect resilience to climate change impacts, and by 2026 the Canadian Highway Bridge Design Code should reflect resilience considerations.[165]
- Canada's complementary Adaptation Action Plan of 2024 sets specific actions and funding, including using the National Trade Corridors Fund of USD 3.22 billion (CAD 4.6 billion) to help the transport system withstand the effects of climate change and better adapt to new technologies and innovation, while addressing mobility needs in Arctic and northern communities.[166] In 2021, the Canadian government opened the 97-kilometre Tłı̨ch$_2$ All-Season Road in 2021 in the Northwest Territories.[167]

In the United States, policy for clean freight transport advanced with the release of the National Zero-Emission Freight Corridor Strategy in March 2024 and the hosting of the "first-ever White House Sustainable Freight Workshop" in December 2024.

- The National Zero-Emission Freight Corridor Strategy – a "landmark" strategy towards zero-emission freight transport – notes that 75% of US heavy truck traffic uses only 4% of the road network, but has negative health effects on vulnerable communities.[168] Providing electric vehicle charging stations along these corridors could support the US targets for sales of zero-emission medium- and heavy-duty vehicles (at least 30% by 2030 and 100% by 2040), as laid out in the National Blueprint for Transportation Decarbonization.[169]
- The White House sustainable freight workshop brought together more than 100 stakeholders to discuss emission reductions in the freight sector.[170]

US land use policy reforms have supported a shift towards integrated transport planning in various jurisdictions. The aim is to counteract a severe housing shortage that drives inflation and displaces people, with mortgage rates at an all-time high and the growth in rents exceeding overall inflation.[171] Analysts note that much of the US housing shortage could be addressed by enabling higher-density housing around public transport stations through effective transit-oriented development.[172] However, the country continues to lack nationwide frameworks that could enable systematic transformation through integrated land use and transport planning.

- Several studies on zoning and land use confirmed that jurisdictions with reformed and updated zoning approaches (such as California, Houston, New York State and Washington, D.C.) were able to provide more housing units than state-wide averages.[173]
- The state of Massachusetts adopted a transit-oriented development strategy with the passage of a bill in 2021, and as of mid-2025 around 100 cities and towns in the state had met the new regulations.[174]
- In December 2022, Santa Monica (California) implemented the first US pilot of a low-emission zone, designating a one-square-mile area as a "Zero Emission Delivery Zone."[175] By 2024, seven more US cities – Los Angeles, Louisville, New York City, Oakland, Pittsburgh, Portland (Oregon) and Washington, D.C. – as well as Miami-Dade County were implementing zero-emission delivery policies.[176]

In 2023, fossil fuel subsidies in North America totalled USD 2,172 per capita, nearly 3 times the global average (USD 813) and more than 10 times the African average (USD 199).[177] The region's fossil fuel subsidies are projected to rise 17% between 2023 and 2030, further undermining climate and sustainability efforts.[178] The substantial subsidies have incentivised fossil fuel use, contributing to high greenhouse gas emission levels.

In January 2025, New York City became the first US city to implement congestion pricing, with each passenger vehicle that enters the "Congestion Relief Zone" facing a daily charge of up to USD 9 at peak times.[179] The aim is to reduce vehicle trips and to increase the attractiveness of public and other forms of transport, helping the state of New York achieve its goal to reduce greenhouse gas emissions 40% below 1990 levels by 2030.[180] As much as 80% of the revenue, estimated to reach USD 15 billion per year, will be used to improve the city's public transport system.[181] From day one, the congestion pricing scheme reduced traffic and cut the average commute time, which fell by half on some major routes during evening rush hours.[182] Between January and March 2025, the number of vehicles entering the regulated zone daily fell 12% (by 80,000 vehicles per day), while travel times for drivers within the zone fell 10-30%.[183]

North America has pledged greater investments in infrastructure for walking and cycling.

- In 2024, British Columbia (Canada) agreed to invest an additional USD 35 million (CAD 50 million) in walking and cycling over three years, adding to the USD 70 million (CAD 100 million) allocated in 2023.[184] The new funds are aimed at closing gaps in the active transport network by building new bicycle lanes and enhancing the safety of people walking and cycling.[185]
- The US Department of Transportation's strategic plan for 2022-2026 aims to increase the percentage of trips by public transport, walking, and cycling 50% by 2026, compared to 2020 levels.[186]
- In 2024, the US Biden administration announced USD 45 million in funds to improve connectivity and safety for cycling and walking.[187]

Very few new public transport services were launched in North America between 2022 and 2024. In 2024, Canada announced the Canada Public Transit Fund (CPTF), which will pursue major improvements in public transport, walking, and cycling and is expected to distribute USD 2.1 billion (CAD 3 billion) annually starting in 2026-27.[188] In the United States, the Biden administration announced in 2024 USD 4 billion to support 14 major public transport construction projects across 11 states.[189]

- In Montreal (Canada), the REM light rail, launched in 2023, served five stations along a 16.6-kilometre route as of 2025; once completed, the urban rail network will serve 26 stations along 67 kilometres.[190]
- Ottawa (Canada) reopened its 19-kilometre Line 2 light rail service in January 2025.[191]
- In the United States, around 170 kilometres were added to the urban rail and bus rapid transit in 2024, with a further 150 kilometres expected in 2025.[192] (Comparable data for Canada were not available.)
- In Honolulu (United States), the first rail-based public transport system began passenger operations in June 2023.[193]

- Seattle (United States) recorded several new light rail expansions and bus rapid transit services in 2024.[194] Also that year, Seattle ordered the country's first double-decker electric buses with inductive wireless charging technology, to be delivered by 2026.[195]

Additional developments in US public transport were focused on fare-free programmes. However, more promising approaches to reduce vehicle travel and emissions include policies that improve public transport service quality, integrate public transport with compact development and pedestrian improvements, and support transport-demand management.[196]

- In Boston, a successful fare-free bus service on specific routes, implemented in 2022, has been extended until 2026.[197]
- Los Angeles provides free public transport to 400,000 students through the Metro GoPass programme, which was made permanent in April 2024.[198]
- The state of Connecticut is using federal funding of USD 38.9 million to electrify its bus rapid transit system, in support of a commitment to be carbon-free by 2035.[199]

North American rail systems have not seen significant expansion in years. In February 2025, Canada announced plans to build its first high-speed rail between Quebec and Toronto.[200] In the United States, new ambitions set in 2024 aimed to improve the rail network and address major challenges including the lack of electrified railways, high-speed rail services and strong labour protections for rail workers.[201] Most of the rail improvements in 2023 and 2024 were to the rolling stock. Because electrified rail remains rare in the region, alternative solutions such as carbon-free hydrogen are being explored.

- In February 2025, Canada announced plans for the Toronto-Quebec City High-Speed Rail Network (Alto) – the country's largest-ever infrastructure project – which includes 1,000 kilometres of passenger-dedicated electrified track connecting seven cities in Ontario and Quebec. The federal government allocated USD 2.7 billion (CAD 3.9 billion) in 2025 for the initial design phase, and the entire project (to be completed by 2043) is expected to cost USD 55-83 billion (CAD 80-120 billion).[202]
- In 2023, Amtrak announced a "new era of rail" in the United States, coupled with a USD 50 billion investment to modernise rolling stock and infrastructure.[203] In December 2024, the All Aboard Act was introduced, proposing USD 200 billion over five years to establish an accessible, reliable, and electrified rail network, with improved protections for rail workers.[204]
- The Biden administration announced in 2024 that USD 2.4 billion under the Bipartisan Infrastructure Law would be used to support 122 rail improvement projects in 41 US states and Washington, D.C.[205]

- Caltrain introduced new electric trains in San Francisco (United States) in 2024.[206]
- The first hydrogen-powered passenger train began testing in California (United States) at the end of 2024.[207] California expanded its hydrogen-powered passenger rail vehicles in 2024, to total 10 vehicles.[208]
- The first section (275 kilometres between Merced and Bakersfield) of the high-speed rail project in California is expected to be operational from 2030.[209] The Trump administration has said it would investigate the project due to alleged poor management and high costs.[210]

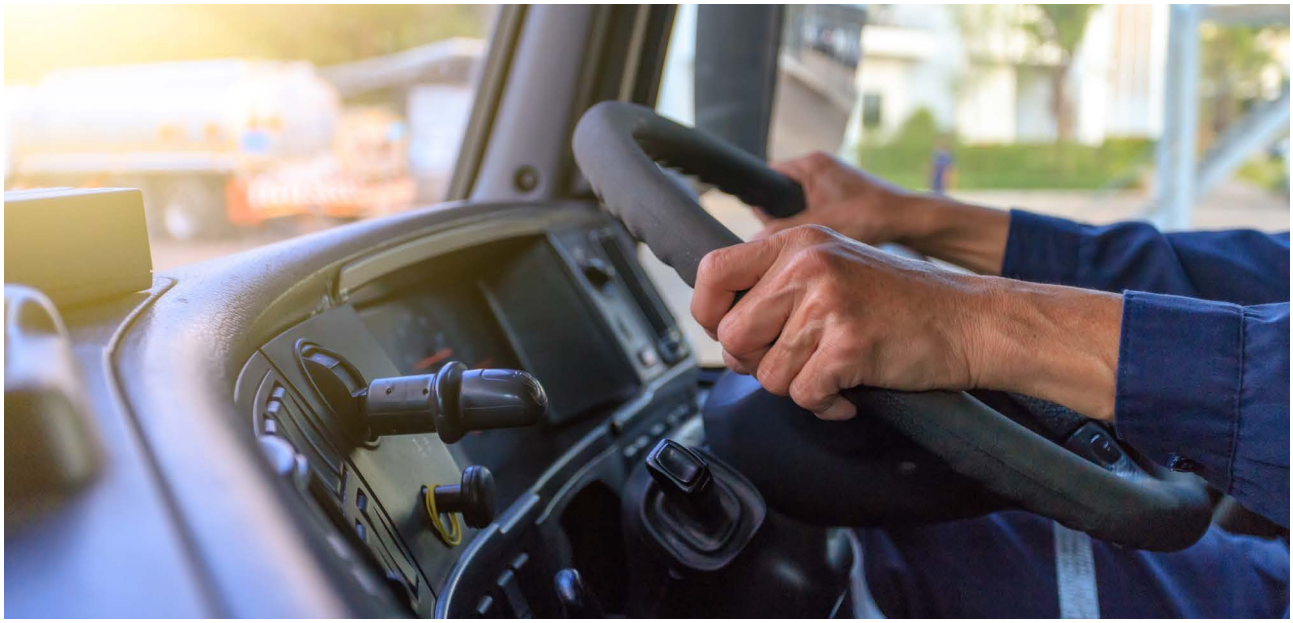
Progress was made in 2024 to improve US vehicle emission standards, but this was rolled back in 2025 under the new administration. In 2024, the US Environmental Protection Agency (EPA) finalised improved emission standards to reduce harmful air pollutants from light- and medium-duty vehicles, for model years 2027-2032.[211] However, in March 2025 the EPA rolled back the rules on vehicle tailpipe emissions, among other emission regulations.[212] The improved standards were anticipated to reduce greenhouse gas emissions from light-duty vehicles 11% per year from 2027 to 2032, and were seen as a key support tool to allow the United States to catch up globally on the transition to electric vehicles.[213] The regulations ensured that light-duty vehicles would not emit more than 170 grams of CO_2 per mile in 2027 and 85 grams in 2032, while medium-duty vehicles would not emit more than 461 grams of CO_2 per mile in 2027 and 274 grams in 2032.[214] For non-methane organic gases (NMOG) and nitrogen oxides (NO_x), the standards aimed to achieve 30 milligrams of NMOG+NO_x per mile in 2027 and 15 milligrams per mile in 2033, while medium-duty vehicles would target 75 milligrams per mile in 2033.[215]

In 2025, advances in vehicle technologies continued in Canada but were largely rolled back in the United States. Canada finalised its Electric Vehicle Availability Standard in 2023, requiring that 100% of new light-duty vehicles sold in the country be zero-emission by 2035.[216] In the United States, President Trump signed an executive order in 2025 to remove the target for 50% of all new vehicles sold to be zero-emission by 2030, which had prompted the auto industry to shift towards cleaner vehicles.[217] The removal of the target was coupled with the reversal of other Biden-era electric vehicle policies, resulting in a halt in federal incentives and subsidies for electric vehicle purchases, and funding for charging infrastructure.[218]

- Under Canada's new standard, the interim targets aim for at least 20% zero-emission vehicle sales by 2026 and at least 60% by 2030.[219] The transition is supported through the USD 462 million (CAD 660 million) Incentives for Zero-Emission Vehicles programme.[220] Under the policy, Canada's electric light-duty fleet is projected to grow from 480,000 in 2024 to 21 million in 2040, and its fleet of zero-emission medium- and heavy-duty vehicles could reach 414,000 in 2030 and 2.4 million in 2040.[221]
- To achieve these targets, Canada estimates that the number of public charging ports for light-duty vehicles would need to increase from 100,000 in 2025 to 679,000 by 2040.[222] For medium- and heavy-duty vehicles, the number of public and private charging ports would need to grow from near-zero in 2024 to 41,000 in 2030 and 275,000 in 2040.[223]
- The US Postal Service announced plans in 2022 to acquire 106,000 new vehicles – with at least 66,000 of them designated as electric delivery vehicles – representing a USD 10 billion investment in fleet modernisation.[224] In 2023, the US Congress allocated USD 3 billion to the Postal Service to support electric vehicle acquisition as part of the country's USD 430 billion climate bill.[225] As of early 2025, the Trump administration had criticised this contract, but it was unlikely to be fully cancelled.[226]
- By January 2025, around 206,000 public charging ports were available in the United States, of which 38,000 were added in 2024.[227]
- A 2023 report on the auto industry in Michigan (United States) showed that the electric vehicle transition could create 56,000 jobs by 2030 and that the state could avoid 4,700 health-related deaths by 2050, mainly in low-income communities.[228]
- The US Inflation Reduction Act accelerated investments in electric vehicle charging infrastructure for medium- and heavy-duty trucks: investments were around USD 5 billion per year in 2022 (prior to the Act) then grew rapidly to USD 30 billion in 2024.[229]

US states have continued their ambition on sustainable, low-carbon transport by focusing mainly on cleaner vehicle fleets. California has spearheaded the nationwide transition to zero-emission vehicles, although in May 2025 the US Senate repealed waivers that allow the state to set its own air pollution standards for road vehicles.[230] This poses risks for all clean car, trucks and electric vehicle initiatives within the state and nationwide.

- In 2023, to support its 2050 net zero emission target, Washington state released a Transportation Carbon Reduction Strategy that covers land use strategies, public and active transport, zero-emission vehicles, and low-carbon fuels for efficient passenger and freight transport.[231]
- As of mid-2024, 12 US states (California, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York State, Oregon, Pennsylvania, Rhode Island, Vermont and Washington) intended to ban sales of passenger vehicles with internal combustion engines by 2035 through the Advanced Clean Cars II rule, initiated by California in 2022.[232]
- In 2020, California introduced the Advanced Clean Trucks (ACT) regulation for road freight transport, and as of late



2023 a total of 11 states had adopted the ACT rule.[233]

- California initiated further advances in clean medium- and heavy-duty vehicles in 2023 through the Advanced Clean Fleets regulation, which aimed to require fleet owners operating in the state to transition to zero-emission vehicles.[234] However, California announced in 2025 that it would repeal the regulation after a coalition of 17 states (led by Nebraska, along with trucking associations), successfully filed a lawsuit against it.[235]
- As part of its strategy to achieve carbon neutrality by 2045, California aims to reduce the daily vehicle-kilometres travelled in the state from 39.6 kilometres per person in 2019 to 29.6 kilometres by 2030 (a 25% reduction) and 27.7 kilometres by 2045 (a 30% reduction).[236]
- The Bipartisan Infrastructure Law of 2021 allocated USD 7.5 billion to establish a nationwide network of 500,000 charging stations by 2030; although a federal order in February 2025 halted the funding, individual states may continue to expand the network.[237]

The Trump administration's cancellation of US federal funding for electric vehicle activities will reportedly lead to job losses in the transport sector, including in electric vehicle production, as well as negative health outcomes; however, efforts may continue at the state level. Studies estimate that cancellation of funding from the Inflation Reduction Act could result in a loss of 130,000 jobs across the electric vehicle industry in 2030, compared to a scenario with the Act; without the Act, the job market could be negatively impacted as soon as 2026.[238]

Proposed increases in US import tariffs could have significant impacts on the automobile industry, especially on the electric vehicle industry, although such tariffs are not necessarily new in the region.

- Effective 1 October 2024, Canada imposed a 100% surtax on Chinese-produced electric vehicles to counteract unfair trade practices by China's government, including subsidisation and lax labour and environmental standards.[239]
- In 2024, the United States increased tariffs on imported Chinese electric vehicles from 25% to 100% and raised tariffs on Chinese batteries from 7.5% to 25%.[240]
- In early 2025, the Biden administration banned the import of any cars and trucks made by Chinese companies as part of a strict crackdown on vehicle software and hardware from China.[241]

Major North American airlines took initial steps towards the adoption of sustainable aviation fuel (SAF) in support of their long-term sustainability strategies.

- In November 2023, Virgin Atlantic completed the world's first transatlantic flight powered entirely by SAF on a trip from London's Heathrow airport to New York, demonstrating the feasibility of long-distance flights using 100% SAF.[242]
- In December 2024, Air Canada made its first purchase of SAF, imported from a Finnish company and produced entirely from renewable waste and residue materials, such as used cooking oil and animal fat waste.[243] In 2021, the airline committed to achieve net zero greenhouse gas emissions by 2050.[244]
- US airlines were among the major investors in SAF, although prices remained two to three times higher than those of conventional fuels as of 2024.[245] Four US carriers – American Airlines, Delta Air Lines, Southwest Airlines and United Airlines – ranked in the top six SAF investors among global aviation companies in 2024.[246]

- Between August 2024 and the end of 2024, United Airlines purchased 3.7 million litres of SAF for use at Chicago O'Hare International Airport, the first company to do so at this airport; SAF was expected to account for 3% of the airline's fuel use at O'Hare in the second half of 2024.[247]
- Delta Air Lines reported a four-fold increase in its use of SAF from 2023 to 2024, although no specific volumes were disclosed.[248] In September 2024, the airline opened its first SAF blending facility in the US state of Minnesota, with a future capacity of up to 110 million litres.[249] For the first time, SAF was transported via pipeline to two Delta hubs (Minneapolis–St. Paul International Airport and Detroit Metropolitan Airport) delivering around 30,000 litres for use in aircraft.[250]

Partnerships in action

SLOCAT partners engaged in dozens of actions during 2023-2024, including:

- The non-profit consortium **CALSTART** is advancing clean transport solutions across North America. It administers the New York Truck Voucher Incentive Program, which supports fleet operators in transitioning to cleaner vehicles by reducing the upfront cost of zero-emission trucks and buses up to 80%.[251] As of early 2024, funding caps for several vehicle categories were raised by 50%, with higher incentives introduced for Class 4–8 electric trucks.[252]
- The **Canadian Urban Transit Research & Innovation Consortium** (**CUTRIC**) spearheads industry-academic collaborations to develop low-carbon mobility technologies across Canada. As the federally designated National Planning Service for the Zero Emission Transit Fund, it supports transit agencies in decarbonising their fleets through predictive modelling, infrastructure planning and technology assessments.[253] Its Canadian ZEB Database tracks national progress towards deploying 5,000 zero-emission buses by 2026, with over 5,400 buses at various stages of deployment as of mid-2024.[254]
- The **Institute for Transportation and Development Policy** (**ITDP**) supports sustainable and equitable transport through technical advocacy, policy reform and strategic partnerships. Its US programme focuses on transformative transport systems in major cities like Boston and Los Angeles.[255] ITDP promotes the Gold Standard Bus Rapid Transit in Boston and advocates for people-centred streets, connected cycling infrastructure, and improved bus services in underserved areas in Los Angeles.[256]
- The **Institute of Transportation Studies at the University of California, Davis** (**ITS-Davis**) is a leading research centre advancing sustainable and low-carbon transport. It houses the Plug-in Hybrid & Electric Vehicle Research Center, which informs the design of zero-emission vehicle policies, and the 3 Revolutions Future Mobility Program, which explores how automation, shared mobility and electrification can serve the public good.[257]
- The **Shared Mobility 2030 Action Agenda**, convened by the Shared-Use Mobility Center, is a collaborative initiative aimed at making shared mobility (such as public transit, on-demand shuttles, ride-hailing, carpooling and micromobility options) the preferred choice over private car ownership by 2030.[258] It outlines actionable steps to enhance the reliability, accessibility, and sustainability of shared transport modes, and emphasises cross-sectoral collaboration among 70 organisations.[259]
- The **Urban Sustainability Directors Network** (**USDN**) supports US local governments in advancing equitable and sustainable urban development. In 2023, USDN supported a federally funded USD 61 million project to improve access across I-10, a major interstate highway that has long divided historically disadvantaged communities.[260] The initiative seeks to create safer walking and cycling routes, reconnect neighbourhoods, and expand access to employment, retail and essential services.[261]
- The **Electric School Bus Initiative** is a partnership between the World Resources Institute and the Bezos Earth Fund aimed at equitably transitioning the entire US school bus fleet to electric vehicles by 2030, bringing health, climate and economic benefits to children and families.[262] As of October 2024, the Initiative was providing technical assistance in 11 US states.[263]

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