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Latin America and the Caribbean Regional Overview

Demographics

Population size:

653 million

(2022)

Population growth:



(2010-2020)

Urban population share:



(2022)

Urban population growth:



(2010-2022)

GDP per capita:

USD 7,861

(2021)

GDP growth:



(2010-2021)

Source: See endnote 1 for this section.



SLOCAT Partnership on Sustainable, Low Carbon Transport

Transport, Climate and Sustainability
Global Status Report - 3rd edition

Key findings



Demand trends



- From 2016 to 2020, the average motorisation rate (covering four-wheeled motor vehicles) in Latin America and the Caribbean was 267 vehicles per 1,000 people, or 1.35 times higher than the global average of 197 vehicles per 1,000 people. Nearly half of all countries in the region had motorisation rates above the global average during this period.
- Personal use of private cars and motorcycles continued to grow, as people perceived a lower risk of contagion from COVID-19 compared to public transport, and driven by other factors such as convenience, accessibility and safety.
- In two-thirds of 218 cities surveyed in Latin America and the Caribbean, just half or less of the population had convenient access to public transport in 2021. Public transport was heavily impacted by the pandemic and has taken longer to recover in the region than driving and walking.
- Because of the limited supply of adequate public transport, especially in peripheral low-income areas, the majority of public transport trips in the region are served by semi-formal and informal transport, which provides a flexible and demand-responsive service.
- Walking remained a major mode of transport in Latin American cities in 2021 and 2022. Cycling was less prevalent, but countries and cities continued to expand their cycling infrastructure.
- The uptake of micromobility (bike sharing and e-scooters) has faced challenges in the region, affected by the COVID-19 pandemic, regulatory restrictions and higher-than-expected operational costs. In April 2019 an estimated 73 systems were operating in 31 cities (mostly in Brazil), but by June 2020 these numbers had dwindled to 14 systems in 12 cities. A few new and expanding bike sharing services aim to increase access and promote social inclusion.
- Road transport dominates freight transport in the region. A 2021 study found that in South America trucks account for around 85% of national and 30% of regional freight transport and logistics, and in Central America road transport accounts for nearly 100% of freight transport.
- River and maritime transport represent 95% of international trade in Latin America and the Caribbean, although inland waterways are poorly developed.
- Cycling for first- and last-mile deliveries has increased in the region.

Emission trends



- Carbon dioxide (CO₂) emissions from transport in Latin America and the Caribbean grew nearly 11.6% between 2010 and 2019, then fell 15.6% in 2020 as a result of the COVID-19 pandemic. In 2021, the resumption in transport activity led to a 9.1% increase in transport CO₂ emissions, although they were still 7.9% below the 2019 level.
- In 2021, transport CO₂ emissions in the region contributed around 33% of overall regional CO₂ emissions and 8.5% of global transport emissions (excluding international aviation and shipping).
- Transport emissions relative to economic output were higher in Latin America and the Caribbean than in any other region except Africa in 2021, at 1.07 tonnes of CO₂ per USD 10,000, and were above the global average of 0.77 tonnes of CO₂ per USD 10,000 in 2021.
- Most countries in the region continued to subsidise fossil fuels through methods such as direct subsidies, stabilisation funds, tax reductions and exemptions, and control through state companies, thereby working against decarbonisation of the sector. Efforts to reduce these subsidies remain unsuccessful and have led to street protests and strikes.
- Although Latin America and the Caribbean remains an emerging market for electric cars (battery electric cars and plug-in hybrids), sales rose sharply from around 6,500 units in 2020 to 20,970 units in 2021 and 28,400 units in 2022. However, electric vehicles still made up only small shares of regional (less than 0.1%) and global fleets (2.1%) as of 2021.
- The number of electric public buses in the region grew more than 100% between 2020 and April 2023 (from 1,959 to 4,133 units), operating in 30 cities across 11 countries and accounting for nearly 4.7% of the combined bus fleets of major cities (around 88,364 buses).

Policy developments



- National governments in Latin America and the Caribbean have increasingly recognised the need to support city and local governments in planning and implementing sustainable urban mobility strategies – including through the development of national plans, policies and guidelines.
- Local sustainable urban mobility plans (SUMPS) continued to expand in the region – including in Brazil, Chile, Cuba, Ecuador and Peru – highlighting the role of cities as climate action leaders.
- As low-emission zones emerge in the region, two cities (Medellín and Rio de Janeiro) were beginning processes for their implementation as of early 2023. Additionally, some countries have developed vehicle efficiency labels to encourage the purchase and use of less-polluting vehicles or to regulate the circulation of certain vehicle types.
- Countries such as Chile and Mexico, and cities such as Bogotá (Colombia), Buenos Aires (Argentina), Lima (Peru) and Rio de Janeiro (Brazil), continued to expand their cycling infrastructure, boosted by measures taken during the pandemic.
- Strategic plans, financial incentives and regulatory elements have emerged to promote the electrification of road transport, many to facilitate the acquisition or operation of electric vehicles. Countries and cities in the region have set targets to electrify vehicle fleets, although electric cars still made up less than 0.1% of the total vehicle stock as of 2021. Electrified public transport modes that began operations included buses, a cable car, light rail systems and tuk-tuks.
- After economic and political delays reinforced by the pandemic, and despite ridership losses, public transport systems expanded in 2022 and 2023, including in Ecuador, Mexico and Panama. Existing metro systems added new lines, and new public transport systems began operations, including bus rapid transit, metro, cable car and light rail systems.
- Argentina, Brazil, Chile and Mexico all have programmes to improve the energy efficiency of freight transport and reduce its emissions, with a focus on innovative technologies and cutting fuel use.
- As of the end of 2022, more than 90% of Latin American and Caribbean countries had submitted a second-generation Nationally Determined Contribution (NDC) towards reducing emissions under the Paris Agreement. However, only 20% of countries had submitted Long-Term Strategies.



Photo credit: Carlos Felipe Pardo



Overview



Latin America and the Caribbean¹ is the second most urbanised region in the world after North America, with 84% of the population living in cities in 2022.² In 2020, as a consequence of the COVID-19 pandemic, extreme poverty in the region was the highest in two decades, reaching 13.1% of the population.³ As economic activity recovered, the overall poverty rate fell slightly from 32.8% in 2020 to 32.3% in 2021, while the extreme poverty rate barely changed (12.9%).⁴ Poverty levels in 2021 remained above 2019 levels.⁵ Latin America and the Caribbean remains the second most unequal region globally (in terms of income, gender, ethnicity, etc.) after Sub-Saharan Africa and has seen very low economic growth.⁶

The effects of pandemic-related lockdowns on transport have persisted in the region, with public transport ridership in 2022 still below pre-pandemic levels despite the resumption of activities. The use of private cars and motorcycles continued to grow due to perceptions of lower contagion risk as well as factors such as convenience and accessibility. Although carbon dioxide (CO₂) emissions from transport fell sharply in 2020, they rose again as pandemic restrictions were lifted and activities resumed. The Russian Federation's invasion of Ukraine and higher energy prices led many countries in the region to provide additional fuel subsidies to alleviate the effects of inflation, impeding the decarbonisation of transport.

Despite the ongoing growth in transport emissions, promising developments in the region included the adoption of policy frameworks to promote sustainable urban mobility, the expansion of public transport systems and cycling infrastructure, and a growing focus on gender and inclusion in mobility planning. The most prominent approaches to transport decarbonisation are policies to promote the electrification of road transport and the adoption of electric buses. Many of these policy measures have clear linkages with achievement of the United Nations Sustainable Development Goals (SDGs) for 2030, such as SDG 3 (good health and well-being) through the improvement of road safety, air quality and active mobility; SDG 5 (gender equality) through the adoption of gender approaches in transport planning, and SDG 11 (sustainable cities and communities).

Demand trends



Cities in Latin America and the Caribbean have grown in both population and geographic size, often in the absence of integrated planning. As in other parts of the world, the region has prioritised planning for automobiles over other modes of transport.⁷

From 2016 to 2020 (latest data available), the average motorisation rate (covering four-wheeled motor vehicles) in Latin America and the Caribbean was 267 vehicles per 1,000 people, or 1.35 times higher than the global average of 197 vehicles per 1,000 people.⁸ Nearly half of all countries in the region had motorisation rates above the global average during this period (see Figure 1).⁹ Motorcycles comprised an estimated 29% of the region's vehicle fleet in 2021.¹⁰

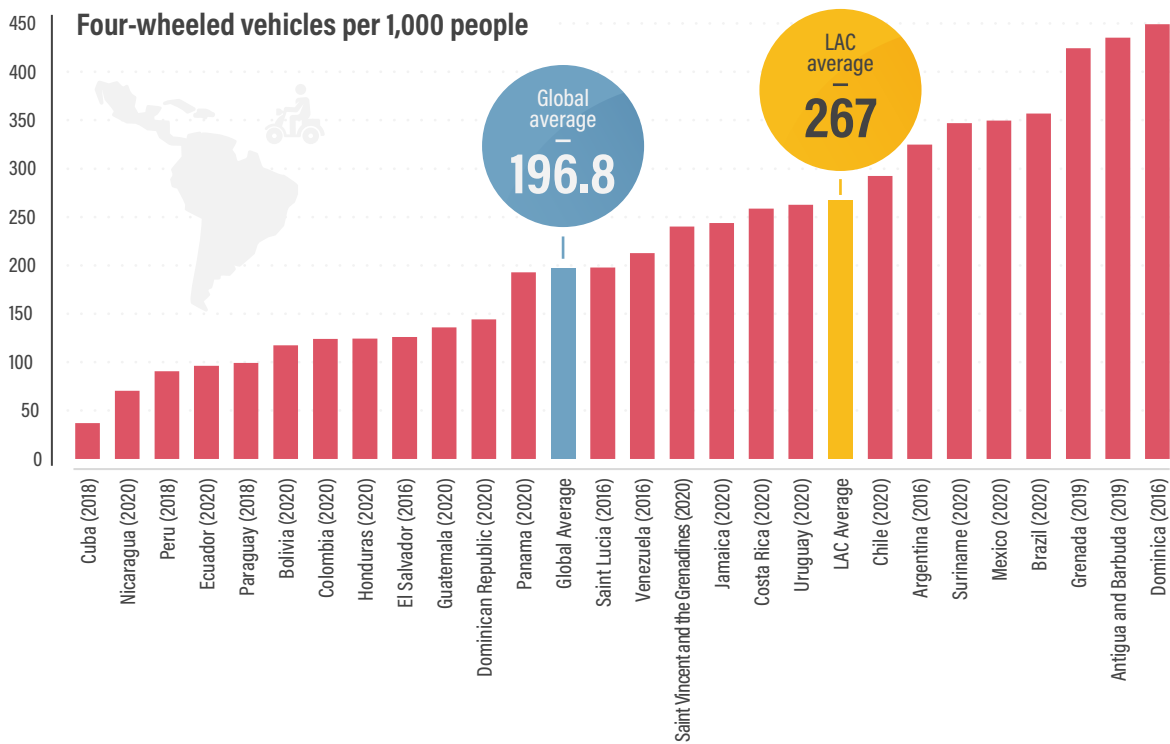
The COVID-19 pandemic profoundly impacted transport in Latin America and the Caribbean, and the region has been slow to recover. **Personal use of private cars and motorcycles continued to grow, as people perceived a lower risk of contagion from COVID-19 compared to public transport, and driven by other factors such as convenience, accessibility and safety.** These factors, as well as the lower cost of motorcycles relative to cars and the higher demand (and hence job opportunities) for delivery services, may have pushed lower-income groups to purchase motorcycles.¹¹

- ▶ In Chile, sales of light- and medium-duty vehicles fell nearly 31% in 2020.¹² As the economy recovered, sales grew around 61% in 2021 and nearly 3% in 2022, the years with the highest sales in the history of the country's automotive sector (along with 2018).¹³
- ▶ In Peru, sales of new light vehicles increased 40% in 2021 and nearly 2% in 2022.¹⁴
- ▶ Data from 14 manufacturers in Brazil indicate that motorcycle sales increased around 26% between 2020 and 2021, from 915,157 to 1,156,776 units, their highest value since 2016.¹⁵ Other sources show that sales of new cars grew only 3% in the same period, from 2,058,437 to 2,119,851 units.¹⁶
- ▶ In Colombia, the registration of new motorcycles increased nearly 41% from 2020 to 2021.¹⁷

¹ Here, Latin America and the Caribbean comprises countries of South America (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela), Central America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama) and the Caribbean (Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago).

FIGURE 1. Motorisation rates per 1,000 people in Latin America and the Caribbean, 2016-2020

Source: See endnote 9 for this section.



- ▶ In Buenos Aires (Argentina), motorcycle trips grew from 3.7% of all trips in 2019 to 5.8% in 2021.¹⁸ Motorcycle trips in Mexico City grew from 4.7% of all trips in 2019 to 6.4% in 2021.¹⁹

According to UN-Habitat, **in two-thirds (144) of 218 cities surveyed in Latin America and the Caribbean, just half or less of the population had convenient access to public transport in 2021.**²⁰ Across the region, 43% of the urban population had convenient access to public transport, the third lowest regional average (after Asia at 38% and Africa at 32%) and below the global average of 56%.²¹ **Public transport was heavily impacted by the pandemic and has taken longer to recover in the region than driving and walking.** In some countries, ridership remained below pre-pandemic levels in 2021 and 2022. Nevertheless, several new public transport systems began operations in 2022.

Ridership on the region’s metro systems fell 50% between 2019 and 2020, from 6,245 million passengers to 3,116 million passengers.²² Queries in Apple’s mapping service for directions related to driving, public transport and walking in Latin America were lowest in late March to early April 2020, with public transport recovering more slowly than driving and walking (see Figure 2).²³ Although driving and walking queries recovered by July 2021, surpassing the pre-pandemic baseline of mid-January 2020, queries for public transport remained below pre-

pandemic levels for seven more months and only surpassed them in February 2022.²⁴

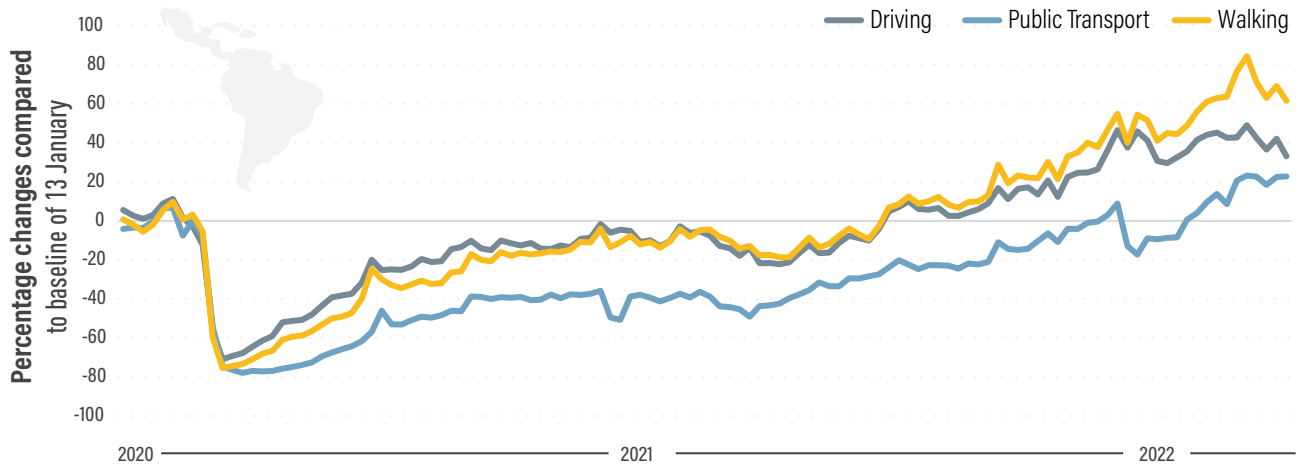
- ▶ In Buenos Aires (Argentina), the total number of trips by metro fell nearly 80% in 2020.²⁵ In 2021, despite the recovery, total trip numbers were still 68% lower than in 2019.²⁶
- ▶ In Mexico, the number of passenger-kilometres travelled by buses and coaches fell around 39% in 2020.²⁷ Although the number increased in 2021, it was still 16% below 2019 levels.²⁸
- ▶ In Brazil, around 1,800 urban bus companies were operating before the pandemic, and an estimated 200 operators ceased operations because of pandemic-related economic losses.²⁹ Following an 80% drop during the first three months of the pandemic, bus ridership in the country recovered slowly to reach around 70% of the pre-pandemic volume in 2022.³⁰

After economic and political delays reinforced by the pandemic and two years of pandemic recovery, several new public transport systems started operating in the region in 2022 and early 2023, including a bus rapid transit system in Guadalajara (Mexico); the first line of the metro system in Quito (Ecuador); additional lines of Panama City’s metro system and Mexico City’s cable car system; and Bolivia’s first electric light rail system in Cochabamba.³¹

Because of the limited supply of adequate public transport,

FIGURE 2. Navigation requests for driving, public transport and walking in Latin America, January 2020 to April 2022

Source: See endnote 23 for this section.



especially in peripheral low-income areas, the majority of public transport trips in the region are served by semi-formal and informal transport, which provides a flexible and demand-responsive service.³² Often, the distinction between formal and informal public transport services is not clear.³³ Consolidated, robust and updated data on the use of these services is limited, corresponding with the nature of these services and with a widespread disregard for this mode in transport policy despite its immense contributions. This prevents its proper consideration in transport planning (see Section 3.4.2 *Informal Transport*) as well as in improving negative impacts – such as pollution, congestion, and reduced road and personal safety – as a result of competition for passengers and limited government oversight of vehicle maintenance and service quality.³⁴

- ▶ In Mexico City, small, privately operated mini-buses are among the most prevalent modes of informal transport, accounting for 74% of all public transport trips.³⁵ When pandemic-related mobility restrictions were in place and metro and bus rapid transit stations were closed, informal transport provided services for essential workers and low-income residents who could not work from home.³⁶
- ▶ A 2021 analysis of informal transport in Central American countries identified at least seven different types of informal transport services operating in Guatemala: informal taxis,

motorcycle taxis, tuk-tuks, pick-up trucks, buses, bicycle taxis, and unregulated app-based mobility services.³⁷

Walking remained a major mode of transport in Latin American cities in 2021 and 2022. Cycling was less prevalent, but countries and cities continued to expand their cycling infrastructure (see *Policy Developments* section).

- ▶ In large cities such as Buenos Aires (Argentina), São Paulo (Brazil) and Mexico City, walking accounted for nearly 30-40% of all trips in 2021, whereas cycling accounted for only 2-4% of trips.³⁸
- ▶ In 2020 and 2021, bicycle sales in Brazil grew 50% compared to pre-pandemic levels, from around 4 million units in 2019 to nearly 6 million units in each of the following two years.³⁹ In 2022, bicycle sales fell 35% to 3.8 million.⁴⁰ However, the electric bike segment grew 9.6% in 2022, with nearly 45,000 e-bikes produced and imported, continuing a five-year growth streak.⁴¹

The uptake of micromobility (bike sharing and e-scooters) has faced challenges in the region, affected by the COVID-19 pandemic, regulatory restrictions and higher-than-expected operational costs.⁴² In April 2019, an estimated 73 systems were operating in 31 cities (mostly in Brazil), but by June 2020 these numbers had dwindled to 14 systems in 12 cities.⁴³ A few new and expanding bike

sharing services in the region aim to increase access and promote social inclusion.

- ▶ The bike sharing system in Brasilia (Brazil), launched in 2014, ceased operations in 2020 due to financial difficulties aggravated by the pandemic.⁴⁴ In 2021, after a 1.5 year gap, the city launched a new bike sharing system with 500 bikes and 70 stations.⁴⁵ The system allows for easy integration with public transport, as users can use the same ticketing system to pay for both services.⁴⁶
- ▶ In Bogotá (Colombia), the city’s first shared bicycle system, Tembici, began operating in 2022 with 3,300 bikes distributed along 300 stations, with the goal of offering sustainable, gender-sensitive and inclusive mobility.⁴⁷ The fleet includes 1,500 mechanical bikes, 1,500 e-bikes, 150 hand-pedal bikes for wheelchair users, 150 cargo bikes to transport goods and 150 attachable child seats.⁴⁸ The system offers a 20% discount for lower-income users, as well as 1,600 free bike parking spots in public spaces.⁴⁹
- ▶ In 2022, Mexico City began expanding its shared bicycle system, Ecobici, with the goal of extending coverage from three city zones to six and adding 2,980 bikes for a total of 9,480.⁵⁰
- ▶ To promote bike use from early ages, Rosario (Argentina) added bicycles for kids at two stations of its shared bicycle system Mi Bici Tu Bici in April 2023.⁵¹ The bikes can only be used in nearby parks, and the city aims to progressively add more bikes for kids at stations close to recreational venues.⁵²

Road transport dominates freight transport in the region. A 2021 study found that in South America trucks account for around 85% of national and 30% of regional freight transport and logistics, and in Central America road transport accounts for nearly 100% of freight transport.⁵³ Data on performance are scarce due to the high diversity of operators, from a large number of small and informal enterprises to few large companies with a high degree of specialisation.⁵⁴ Heavy vehicles in the region have an average age of 15 years, and in several countries a large share of trucks are more than 20 years old.⁵⁵ Rail freight represents less than 3% of the region’s overall freight transport.⁵⁶ **River and maritime transport account for 95% of international trade in the region, although inland waterways are poorly developed.**⁵⁷

Cycling for first- and last-mile deliveries has increased in the region. Although this practice is deeply rooted in low-income segments as a source of informal employment, newer initiatives using cargo bikes or tricycles aim to reduce pollution and road congestion caused by freight transport and urban waste collection efforts, and to improve social inclusion.⁵⁸

- ▶ In 2021, with support from the Development Bank of Latin America (CAF) and Germany’s Agency for International

Cooperation (GIZ), Fortaleza (Brazil) launched the Re-ciclo project, which donates electric tricycles to wastepicker associations to replace their heavy carts and to test the tricycles for urban logistics purposes.⁵⁹

- ▶ Between December 2020 and May 2022, with the support of the World Bank, Bogotá (Colombia) carried out the BiciCarga project with businesses of different sectors, which implemented a distribution scheme using electric cargo bikes. The project aimed to assess the necessary requirements for the sustainability of this distribution model.⁶⁰
- ▶ With support from ICLEI-Local Governments for Sustainability, Rosario (Argentina) added 20 cargo bikes to its public bike sharing scheme in 2022, targeting merchants, entrepreneurs and workers in the city centre.⁶¹

Emission trends



CO₂ emissions from transport in Latin America and the Caribbean grew nearly 11.6% between 2010 and 2019, then fell 15.6% in 2020 as a result of the COVID-19 pandemic.⁶² **In 2021, the resumption in transport activity led to a 9.1% increase in transport CO₂ emissions, although they were still 7.9% below the 2019 level.**⁶³ Peru, Mexico and Ecuador experienced the region’s highest drops in transport CO₂ emissions in 2020 (down 20% or more).⁶⁴ As transport resumed in 2021, the highest increases in emissions were in Ecuador, Colombia and Peru.⁶⁵

In 2021, transport CO₂ emissions in Latin America and the Caribbean contributed around 33% of overall regional CO₂ emissions and 8.5% of global transport emissions (excluding international aviation and shipping).⁶⁶ Average per capita transport CO₂ emissions in the region were 0.85 tonnes, close to the global average of 0.83 tonnes.⁶⁷ The highest per capita transport emissions were in the Caribbean countries of the Bahamas and Antigua and Barbuda (close to 3 tonnes), and the lowest were in Haiti, Cuba, Nicaragua and Honduras (below 0.5 tonnes) (see Figure 3).⁶⁸

Regional CO₂ trends

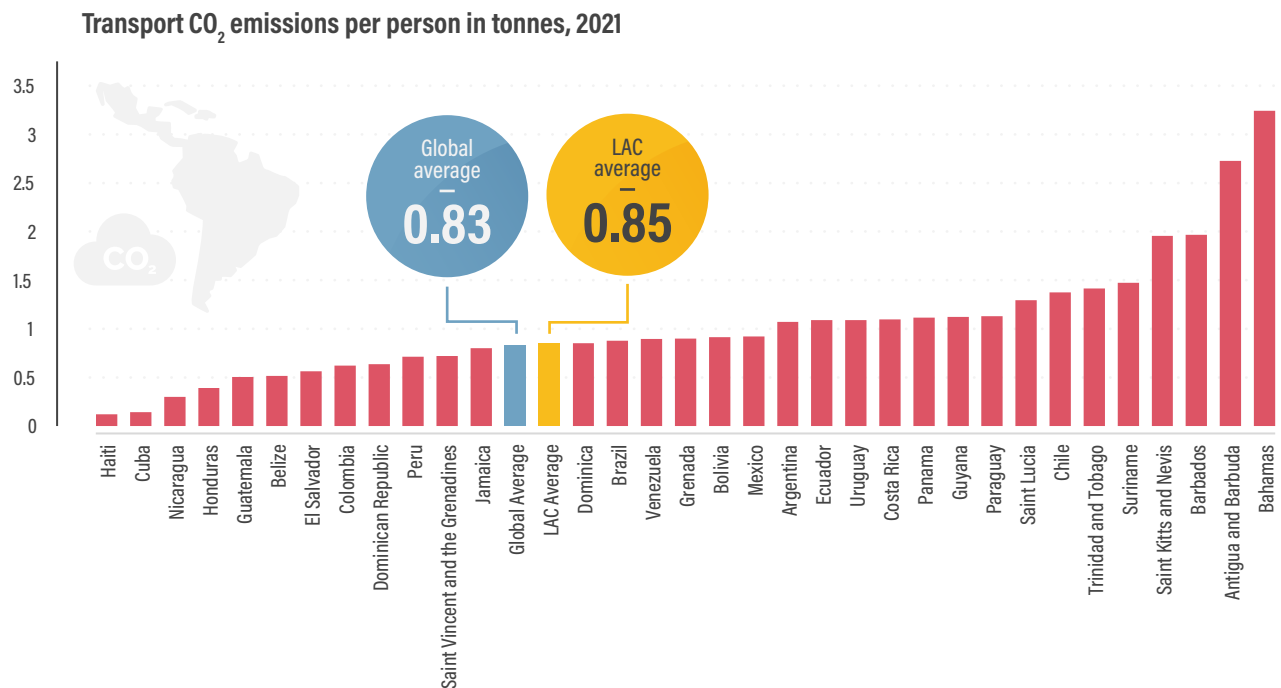


Total transport CO₂ emissions (2021):	550 million tonnes
Share of global transport CO₂ emissions (excluding international aviation and shipping) (2021):	8.5%
Per capita transport CO₂ emissions (2021):	0.85 tonnes
Transport CO₂ emissions per USD 10,000 GDP (2021):	1.07 tonnes

Source: See endnote 69 for this section.

FIGURE 3. Per capita transport CO₂ emissions in Latin America and the Caribbean, 2021

Source: See endnote 68 for this section.



Transport emissions relative to economic output were higher in Latin America and the Caribbean than in any other region except Africa in 2021, at 1.07 tonnes of CO₂ per USD 10,000, and were above the global average of 0.77 tonnes of CO₂ per USD 10,000 in 2021.⁷⁰ This may be due to the dominance of road freight transport and to the absence of more cost-effective and energy-efficient modes such as rail and shipping across the region.⁷¹

Most countries in the region continued to subsidise fossil fuels through methods such as direct subsidies, stabilisation funds, tax reductions and exemptions, and control through state companies, thereby working against decarbonisation of the sector. Efforts to reduce these subsidies remain largely unsuccessful and have led to street protests and strikes, as nearly a third of the region's population lives in poverty, and such reductions would affect consumer purchasing power.⁷² The challenge has been intensified by global events such as the Russian Federation's invasion of Ukraine, which caused a slowdown in economic growth and led many countries to adopt additional fuel subsidies to alleviate the impacts of higher food and energy prices on vulnerable households.⁷³

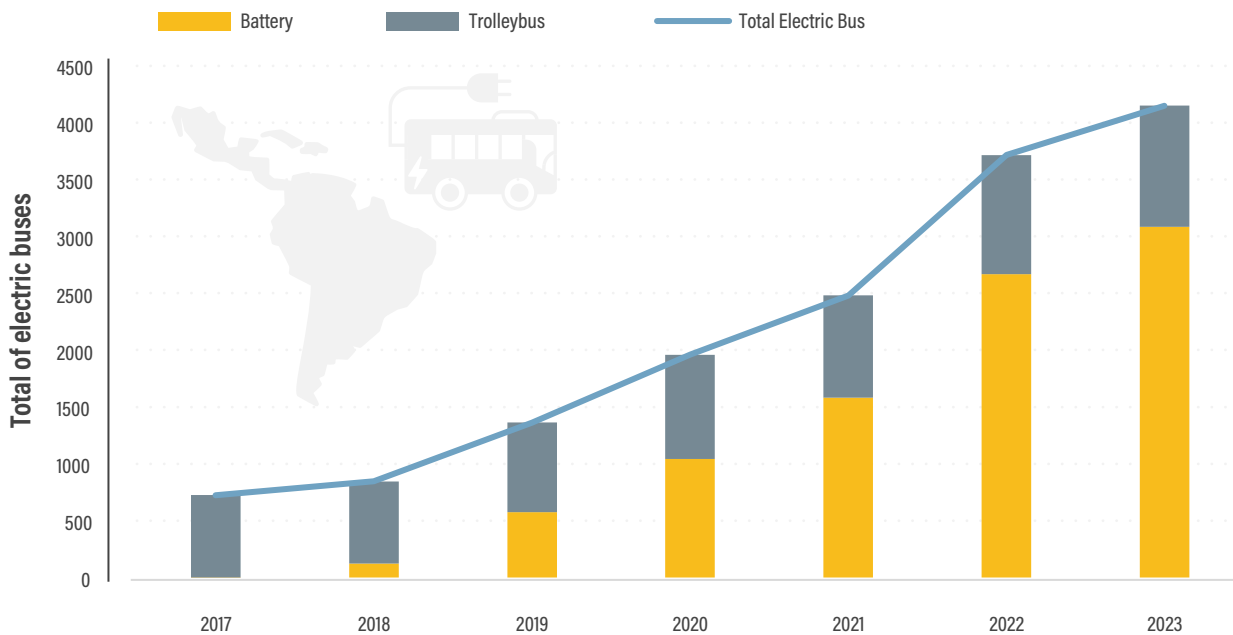
- ▶ As of February 2023, Venezuela, Bolivia, Ecuador and Colombia had the lowest petrol and diesel prices in the region, ranging from USD 0.016 to USD 0.634 per litre, whereas Chile, Uruguay, Belize and Barbados had the highest prices, ranging from USD 1.47 to USD 1.95 per litre.⁷⁴

- ▶ In April 2022, Chile adopted the inclusive recovery plan Chile Apoya to support residents facing rising living costs, including for fuel. A key measure increases the allocation of economic resources to smooth the effects of higher international oil prices on the cost of petrol for vehicle use.⁷⁵
- ▶ Peru adopted tax exemptions and measures in March and April 2022 to stabilise the prices of petrol, liquefied petroleum gas (LPG) and diesel.⁷⁶ These measures resulted in reductions in the fuel prices for vehicle use of around 28% for diesel and 17% for petrol.⁷⁷
- ▶ Brazil approved a regulation in June 2022 to reduce taxes on petrol and energy, leading to a decrease in prices and in the inflation rate, which reached its lowest value since 1980.⁷⁸ The regulation reduced the average price per litre of petrol nearly 29%.⁷⁹
- ▶ Also in June 2022, Ecuador experienced violent country-wide protests following increases in the prices of fuel, food and other basic necessities.⁸⁰ Similar protests took place in Panama in July 2022.⁸¹ In both cases, governments responded by reducing or freezing fossil fuel prices.⁸²

Although Latin America and the Caribbean remains an emerging market for electric cars (battery electric cars and plug-in hybrids), sales rose sharply from around 8,000 units in 2020 to 27,000 units in 2021 and 37,000 units in 2022.⁸³ However, electric vehicles still made up only small shares of regional (less than 0.1%) and global fleets (2.1%) as of 2021.⁸⁴

FIGURE 4. Electric buses in Latin America and the Caribbean, by type, 2017-2023

Source: See endnote 90 for this section.



- ▶ In 2021, Colombia, Mexico and Costa Rica led in the commercialisation of light-duty battery electric vehicles in the region, with between 1,000 and 1,500 units registered in each country.⁸⁵
- ▶ Costa Rica’s electric car fleet grew around 70% between 2020 and 2021 (from 1,484 to 2,529 vehicles) and around 60% in 2022, to reach a total of 4,128 units.⁸⁶ Considering also electric motorcycles (1,077 units) and special equipment (1,335 units), Costa Rica had a combined 6,540 electric vehicles in 2022, accounting for 4% of all new vehicles registered that year.⁸⁷
- ▶ In 2022, fully electric vehicles in Colombia made up an estimated 0.12% of the total vehicle fleet.⁸⁸

The number of electric public buses in the region grew more than 100% between 2020 and April 2023 (from 1,959 to 4,133 units), operating in 30 cities across 11 countries and accounting for nearly 4.7% of the combined bus fleets of major cities (around 88,364 buses).⁸⁹ The total number of electric buses in the region’s public transport fleets grew more than 110% between 2020 and April 2023 (see Figure 4).⁹⁰

- ▶ As of April 2023, the countries with the highest numbers of e-buses in the region were Colombia (1,589 units) and Chile (1,223 units), followed by Mexico (556 units), Brazil (376 units) and Ecuador (106 units).⁹¹ The leading cities

were Bogotá (1,485 units), Santiago (1,180 units) and Mexico City (493 units).⁹²

- ▶ Barbados has the largest e-bus fleet in the Caribbean, rising from an initial 33 units in 2020 to 49 units in 2022 across the island of 300,000 inhabitants.⁹³
- ▶ In 2020, 32 e-buses began operating in Uruguay, and by July 2022 the buses had travelled some 3.6 million kilometres, avoiding around 1.5 million litres of fuel consumption and 3,900 tonnes of CO₂ emissions.⁹⁴

Policy developments



National governments in Latin America and the Caribbean have increasingly recognised the need to support city and local governments in planning and implementing sustainable urban mobility strategies - including through the development of national plans, policies and guidelines. These frameworks seek to facilitate efficient co-ordination across jurisdictional levels, providing effective support and ensuring coherence across national-level objectives and sub-national transport planning.

- ▶ In 2020, a constitutional amendment in Mexico declared the universal right to safe, accessible, efficient, sustainable, inclusive and equitable mobility, leading to the adoption in 2021 of the General Law of Mobility and Road Safety. The law aims to reduce road crashes, promote equitable and sustainable access to transport services, and harmonise sub-national actions.⁹⁵
- ▶ Chile launched its National Sustainable Mobility Strategy in 2021, establishing a vision and objectives for urban mobility by 2050 and recommending measures for cities to generate their own locally aligned strategies.⁹⁶
- ▶ In 2022, Uruguay launched the Guide for Sustainable Urban Mobility Planning to provide sub-national governments with tools for planning and implementing sustainable urban mobility strategies.⁹⁷
- ▶ In 2022, Colombia developed the National Strategy of Active Mobility with a Gender and Differential Approach, which provides guidelines for local governments to promote walking and cycling, consider the needs of people with reduced mobility and disabilities, and promote gender equality.⁹⁸ The complementary Guide for Shared Bicycle Systems helps local governments evaluate the technical, regulatory and financial aspects of implementing bike sharing systems in large and small cities.⁹⁹

Local sustainable urban mobility plans (SUMPs) continued to expand in the region - including in Brazil, Chile, Cuba, Ecuador and Peru - highlighting the role of cities as climate action leaders. During 2021-2022, Ambato (Ecuador), Antofagasta (Chile), Baixada Santista (Brazil), Havana (Cuba) and Trujillo (Peru) finalised their SUMPs (with support from the EUROCLIMA+ programme) as cornerstones of their contributions to address climate change, including goals to develop high-quality public transport, promote walking and cycling, and improve road safety.¹⁰⁰ Cities expected to complete SUMPs in the coming years include Arequipa (Peru), Córdoba (Argentina), La Paz (Bolivia) and Lima (Peru).¹⁰¹

- ▶ In 2020, Brazil added to its National Urban Mobility Policy that cities with more than 20,000 inhabitants, cities belonging to metropolitan regions, and cities in touristic areas must present SUMPs before April 2023 as a requirement to receive federal economic support for implementing urban mobility measures.¹⁰² As of December 2022, 343 municipalities - around 17% of the cities covered in the scope of the mandate - had finalised SUMPs, and 90 of these cities have more than 250,000 inhabitants.¹⁰³
- ▶ In October 2020, Colombia's Ministry of Transport approved a resolution requiring municipalities, districts and metropolitan areas with populations of more than 100,000 inhabitants to prepare or adjust Sustainable and Safe Mobility Plans that prioritise active mobility and low- or zero-emission public transport.¹⁰⁴

- ▶ In April 2021, Costa Rica adopted a Pedestrian Mobility Law that aims to guarantee the right to inclusive mobility in all physical environments; regulate the planning, maintenance and financing of sidewalks; and require districts to develop SUMPs.¹⁰⁵

As low-emission zones emerge in the region, two cities (Medellín and Rio de Janeiro) had begun processes for their implementation as of early 2023.¹⁰⁶ Additionally, some countries have developed vehicle efficiency labels to encourage the purchase and use of less-polluting vehicles or to regulate the circulation of certain vehicle types.

- ▶ In 2021, Medellín became the first city in Colombia to establish a protected urban air zone in the city centre, with the goal of reducing transport emissions and improving air quality.¹⁰⁷
- ▶ Rio de Janeiro (Brazil) approved the creation of a low-emission district in June 2022, with the goal of making the zone partially operational by 2024 and fully operational by 2030.¹⁰⁸
- ▶ In May 2022, Argentina adopted a label that provides accurate data on vehicle fuel consumption and CO₂ emissions, enabling consumers to compare vehicles when making purchase decisions.¹⁰⁹
- ▶ Bogotá (Colombia) began implementing a two-year voluntary environmental labelling pilot for cargo vehicles in the first quarter of 2023, with the aim of quantifying the emissions of various vehicle technologies as a basis for issuing future permits or restrictions on circulation to improve air quality.¹¹⁰

Countries such as Chile and Mexico, and cities such as Bogotá (Colombia), Buenos Aires (Argentina), Lima (Peru) and Rio de Janeiro (Brazil), continued to expand their cycling infrastructure, boosted by measures taken during the pandemic.

- ▶ Between 2015 and 2021, Bogotá (Colombia) expanded its bicycle infrastructure 33% (from 443 kilometres to 590 kilometres), and the city's 2020-24 Strategic Plan includes the goals of further expanding it to 830 kilometres by 2024 and increasing the number of cycle trips by 50%.¹¹¹
- ▶ In 2021, Lima (Peru) reported 294.35 kilometres of bike paths, and in November the city signed an economic support agreement of EUR 20 million (USD 21.3) with the German Financial Cooperation to build an additional 114 kilometres of bicycle lanes and 12 bike parking lots in the city.¹¹²
- ▶ Between 2019 and 2022, Mexico City built 206 kilometres of protected cycling lanes, more than the amount built in the previous 14 years (174 kilometres) and bringing the total network to 381 kilometres.¹¹³ The goal is to expand the network to 600 kilometres and to reach 510,000 daily bicycle trips by 2024 to reduce transport-related emissions.¹¹⁴
- ▶ In 2022, Buenos Aires (Argentina) met its goal of having 300 kilometres of protected cycling lanes (up from 267 kilometres in 2020), and the city is set to reach 1 million daily bicycle trips



by 2023, three times more than in 2019.¹¹⁵

- ▶ In March 2023, Rio de Janeiro (Brazil) launched its Cycling Expansion Plan CicloRio, which sets the targets of connecting all public transport stations of medium and high capacity (including bus rapid transit and metro) to the bicycle network by the end of 2024, and to expand the cycling infrastructure from 450 kilometres to 1,000 kilometres by 2033.¹¹⁶
- ▶ In April 2023, Chile reported having 2,072 kilometres of cycling infrastructure, up 11% from 2021 (1,866 kilometres) and up 35% from before 2018 (1,344 kilometres).¹¹⁷ The Santiago metro region had 781.6 kilometres as of 2022, and another 115 kilometres was being built throughout the country.¹¹⁸

Strategic plans, financial incentives and regulatory elements have emerged to promote the electrification of road transport, many to facilitate the acquisition or operation of electric vehicles.

- ▶ In 2022, Chile passed a law promoting investment in energy storage and electric mobility as key elements to achieve the country's goal of carbon neutrality by 2050.¹¹⁹ The law exempts electric vehicles from circulation taxes for two years and allows industries that generate renewable energy for productive purposes to feed excess electricity to (or withdraw energy from) the national grid.¹²⁰
- ▶ Guatemala approved a law in 2022 on incentives for electric mobility, including exemptions from value-added tax and from

taxes on the import of electrical equipment and devices used exclusively for electric vehicle charging.¹²¹

- ▶ In 2022, Costa Rica updated its law on incentives for the purchase of new and used electric vehicles during the next 12 years and increased the scope of incentives already established in 2018.¹²²
- ▶ Panama passed a new electromobility law in 2022 that requires municipalities to exempt electric vehicles from circulation taxes for five years.¹²³
- ▶ In 2022, Paraguay presented its Master Plan for Multimodal Electric Mobility for Public and Logistic Transport, which lays out a roadmap to 2040 that includes quality criteria and programmes to introduce electric vehicles in public and freight transport.¹²⁴
- ▶ Uruguay launched the Electric Urban Mobility Guide in 2022 to provide regional departmental governments with the tools to implement electric mobility.¹²⁵ In November 2022, the country announced subsidies of USD 5,000 each for purchases of electric taxis or electric vehicles used for ride hailing, to be available until December 2023 or until the total allocation of USD 500,000 is used up.¹²⁶

Countries and cities in the region have set targets to electrify vehicle fleets, although electric cars still made up less than 0.1% of the total vehicle stock as of 2021, well below the global share of 2.1% electric cars in the total passenger car

vehicle fleet.¹²⁷

- ▶ In October 2021, Chile launched its new National Electromobility Strategy, which calls for 100% of the sales of light, medium and public transport vehicles (buses, taxis and buses) to be zero emissions by 2035, and for 100% of the sales of cargo transport and inter-city buses to be zero emissions by 2045.¹²⁸
- ▶ Panama's electro-mobility law of 2022 sets targets to electrify 10% of government vehicles and public transport by 2025, 25% by 2027 and 40% by 2030.¹²⁹
- ▶ In Brazil, the city of Curitiba targets deploying around 150 articulated e-buses by 2024 and aims to operate 100% of its passenger vehicles with clean or renewable energy by 2050.¹³⁰ Rio de Janeiro targets 69 e-buses in operation by 2024 and the replacement of 20% of its public transport fleet with zero-emission buses by 2030.¹³¹ São Paulo banned bus companies from purchasing new diesel buses as of 2022 and targets at least 2,600 e-buses by 2024, to represent around one-fifth of the fleet.¹³²

Countries and cities in the region continued to invest in the use of e-buses for public transport.

- ▶ In 2022, Guatemala City carried out a 3.5-month pilot project to evaluate the efficiency and sustainability of 20 e-buses under normal operating conditions.¹³³
- ▶ Work began in 2022 on the charging terminal that will enable the initial operation of 40 e-buses in Antofagasta (Chile) in mid-2023, the first such service outside the country's capital.¹³⁴

Electrification in the region is also reaching other public transport modes besides buses.

- ▶ Mexico City inaugurated the first line of its Cablebús cable car system in 2021, and in 2022 a second line started operating, which transported more than 23 million people during the year and reduced the travel time from 1 hour and 15 minutes to only 36 minutes.¹³⁵ A third line is expected to be operational by the end of 2023.¹³⁶
- ▶ Bolivia's first electric light rail system, Tren Metropolitano, started operating in September 2022 as one of the country's most modern public transport systems, linking the cities of Cochabamba, Colcapirhua, Quillacollo, Sacaba, Sipe Sipe and Vinto.¹³⁷
- ▶ In 2022, Guadalajara (Mexico) began building the fourth line of its Mi Tren light rail network, which serves the municipalities of Guadalajara, Tlaquepaque and Zapopan in the Guadalajara metro area.¹³⁸
- ▶ San Juan Comalapa (Guatemala) received nine electric tricycle "tuk-tuks" in May 2022 to provide public transport for elderly populations and people with disabilities, and to

support the work of waste pickers.¹³⁹

After economic and political delays reinforced by the pandemic, and despite ridership losses, public transport systems expanded in 2022 and 2023, including in Ecuador, Mexico and Panama. Existing metro systems added new lines, and new public transport systems began operations, including bus rapid transit, metro, cable car and light rail systems. As of March 2023, metro systems were operating in 10 countries (Argentina, Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Mexico, Panama, Peru and Venezuela), and bus rapid transit systems were operating in 13 countries (Argentina, Brazil, Chile, Colombia, Ecuador, El Salvador, Guatemala, Mexico, Panama, Peru, Trinidad and Tobago, Uruguay and Venezuela).¹⁴⁰

- ▶ The second corridor of the bus rapid transit system of Guadalajara (Mexico) started functioning in 2022, with 42 stations distributed along 41.5 kilometres.¹⁴¹
- ▶ The metro system in Quito (Ecuador) began trial operations in early 2023 and was the first in the country as well as the newest in the region.¹⁴²
- ▶ In March 2023, a new metro branch connecting the city centre of Panama City with Tocumen International Airport started operations, making the city one of the few in the region to have metro service to the airport.¹⁴³
- ▶ The Lima and Callao Metro, which serves the Lima (Peru) metropolitan area, had one line in operation and two more under construction as of early 2023.¹⁴⁴
- ▶ Bogotá (Colombia) is building its first metro line, which is expected to be finished by 2028.¹⁴⁵

Argentina, Brazil, Chile and Mexico all have programmes to improve the energy efficiency of freight transport and reduce its emissions, with a focus on innovative technologies and cutting fuel use.¹⁴⁶

- ▶ In 2018, Chile implemented Giro Limpio, a voluntary programme that seeks to certify and recognise efforts by transport companies to improve their energy and environmental performance. As of July 2021, the programme involved 180 carriers accounting for 15% of Chile's transported cargo, 462 million litres of diesel consumption and 1,313,080 tonnes of CO₂-equivalent emissions.¹⁴⁷ The programme aims to reduce 32 million litres of diesel use and avoid 91,000 tonnes of CO₂-equivalent emissions, and seeks to reach 10% of the national truck fleet by early 2024.¹⁴⁸
- ▶ In 2021, Chile and Argentina began harmonising the regulations of Giro Limpio and Transporte Inteligente, Argentina's own freight transport energy efficiency programme.¹⁴⁹



Photo credit: Ashden

- ▶ Chile launched the programme Vuelo Limpio in November 2021 to improve the energy efficiency of air transport (goods and passengers), with the participation of three airlines and an air taxi company.¹⁵⁰
- ▶ Mexico's voluntary programme for cargo transport companies, Programa Transporte Limpio, reported 718 participating companies as of December 2022 and a total of 7 million tonnes of avoided CO₂ in 2021.¹⁵¹

As of the end of 2022, more than 90% of Latin American and Caribbean countries had submitted a second-generation Nationally Determined Contribution (NDC) towards reducing emissions under the Paris Agreement.¹⁵² However, only 20% of countries had submitted Long-Term Strategies.¹⁵³ Countries in the region show the strongest linkages to renewable energy in transport globally, with nearly 12% of their NDC actions associated with alternative fuels.¹⁵⁴ Four countries (Belize, Dominica, El Salvador and Grenada) included targets for reducing transport greenhouse gas emissions in their second-generation NDCs.¹⁵⁵

- ▶ Belize aims to reduce its use of conventional transport fuels 15% by 2030, to avoid 117 kilotonnes of CO₂ annually.¹⁵⁶
- ▶ Dominica targets reducing its overall transport CO₂ emissions 20% below 2014 levels and its shipping CO₂ emissions 100% below 2014 levels by 2030.¹⁵⁷

- ▶ El Salvador aims to limit its transport emissions to 334 kilotonnes below business-as-usual growth by 2030.¹⁵⁸
- ▶ Grenada repeated its transport greenhouse gas mitigation target from its first NDC, which aims to reduce transport CO₂ emissions 20% below 2010 levels by 2025, with further reductions by 2030.¹⁵⁹
- ▶ Eight countries in the region (Antigua and Barbuda, Barbados, Bolivia, Chile, Colombia, Costa Rica, Dominica and Panama) included e-mobility targets in their second-generation NDCs. For example, Panama envisions that by 2030, electric vehicles will represent 10% of commercial vehicles, 25% of personal vehicles, 20% of public transport and 30% of government fleets.¹⁶⁰
- ▶ A comparison of national strategies against the NDCs and Long-Term Strategies submitted by Latin American and Caribbean countries as of early February 2022 found that there is coherence between countries' climate strategies and their planning instruments at the national and sub-national levels. This consistency is found in framework strategies related to transport, energy, urban planning and environmental management, and climate change.¹⁶¹

Partnership in action



SLOCAT partners engaged in dozens of actions during 2020-2022, including:

- ▶ **Asociación Sustentar**, as part of its support to the EUROCLIMA+ programme, developed extensive mapping that provides easy-to-access and centralised information about organisations and initiatives working on advancing sustainable urban mobility in Latin America; this includes a mapping of regional needs, priorities, challenges, and interests in sustainable mobility, as well as an analysis of available online training on sustainable urban mobility in English and Spanish.¹⁶²
- ▶ The C40 Cities Finance Facility (CFF) aims to facilitate access to finance for climate change mitigation and resilience projects in cities.¹⁶³ In the region, CFF is currently working with Lima (Peru) to leverage investment for cycling infrastructure and with Rio de Janeiro (Brazil) to develop a sustainable Electric Bus Depot powered with solar energy.¹⁶⁴
- ▶ The urban mobility component of **EUROCLIMA+**, the European Union's flagship co-operation programme on sustainability and climate change with Latin America, supports the development of national policies, multi-modal integrated urban planning and innovative pilot projects in 12 countries.¹⁶⁵ Implemented by Germany's GIZ and France's AFD, it also hosts a community of practice to strengthen exchanges and capacities of cities and national governments in the region.¹⁶⁶
- ▶ The **GEF-7 Global Electric Mobility Program** is an initiative financed by the Global Environment Facility that supports low and middle-income countries around the world with the shift to electric mobility. The Latin America and the Caribbean regional platform, led by Centro de Movilidad Sostenible, includes eight countries: Chile, Antigua and Barbuda, Costa Rica, Ecuador, Grenada, Jamaica, Peru and Saint Lucia.¹⁶⁷
- ▶ The **ICLEI** project EcoLogistics aims to advance effective regulatory, planning and logistical instruments to support low-carbon urban freight.¹⁶⁸ It currently supports cities in Argentina and Colombia to develop urban freight strategies and viable alternatives to low-quality, diesel-powered freight vehicles, particularly for last-mile logistics.¹⁶⁹
- ▶ The **MobiliseYourCity Partnership** fosters more comprehensive, integrated and participatory urban mobility planning at the local and national levels by providing methodological guidelines for developing sustainable urban mobility plans (SUMPs) and national urban mobility plans (NUMPs).¹⁷⁰ The Partnership's guidelines for developing and implementing SUMPs include regional insights and lessons learned, including for Latin America and the Caribbean.¹⁷¹
- ▶ **PLAMOB** (Latin American Bicycle Mobility Platform), an initiative of the World Bank, seeks to strengthen the exchange of knowledge and experience to promote bicycle use in the region's cities.¹⁷²
- ▶ The **Zero Emission Bus Rapid-deployment Accelerator (ZEBRA) Partnership** works with the cities of Medellín (Colombia), Mexico City, Santiago (Chile) and São Paulo (Brazil) to accelerate the deployment of zero-emission buses in the region.¹⁷³



Photo credits: Metro de Medellín

2.4 LATIN AMERICA AND THE CARIBBEAN REGIONAL OVERVIEW

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