



Asia Regional Overview



Asia has accounted for the majority of the global growth in transport demand and emissions since 2000. It has also invested in some of the strongest emission mitigation responses. Overall, the region is poised to set the pace for new sustainable transport models that can be replicated across both developed and developing countries.



Download full regional analysis

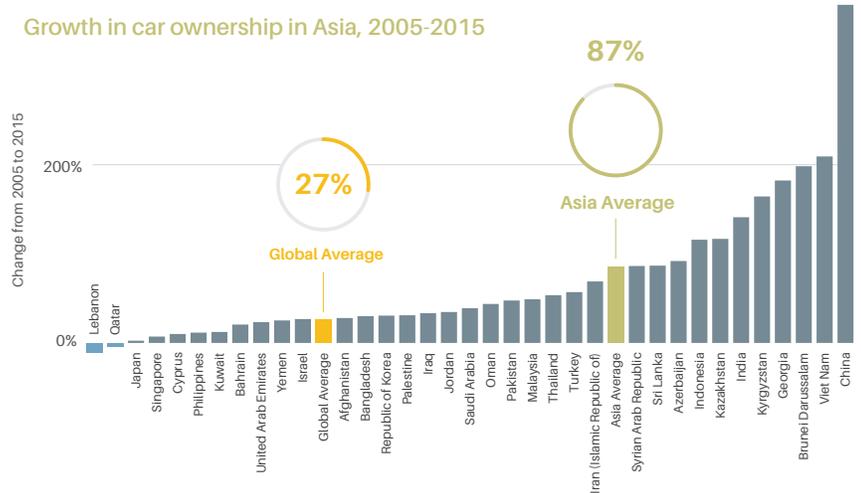


Transport demand records strongest growth in Asia

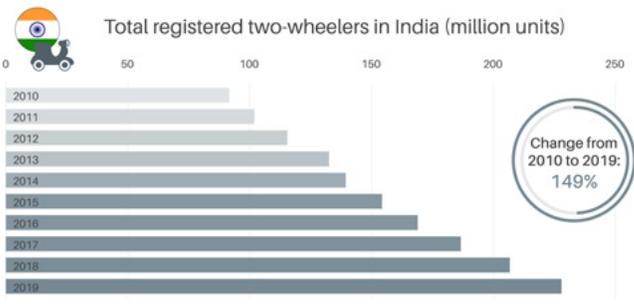
Asia's car ownership rate increased 87% between 2005 and 2015 (latest available data), more than three times the global average.

Four of the world's five most congested cities were in Asia in 2019 (**Bengaluru, Mumbai and Pune, India**; and **Manila, the Philippines**), due largely to increased ownership of motorised two-, three- and four-wheeled passenger and freight vehicles.

Growth in car ownership in Asia, 2005-2015



Growth in motorcycle fleets in India, 2010-2019



Asian countries are ramping up motor vehicle production and accounted for 95% electric motorcycles operating in Asia. Electric two- and three-wheeler sales are growing rapidly in Asia, with annual e-bike sales in **China** alone increasing from nearly 12 million in 2010 to 16 million in 2020. Conventional two- and three-wheelers, such as mopeds and motorcycles, also grew 149% in **India** and 80% in **Vietnam** between 2010 and 2019. The world's largest motorcycle fleets are in **China, India, Indonesia, Pakistan** and **Vietnam**. Asia was also the epicentre of dockless bike-sharing systems in 2019 and 2020.



Asia continued to dominate global maritime trade in 2019, accounting for more than 50% of global trade volume, more than 40% of goods loaded and more than 60% of goods unloaded.

E-scooter services are less popular in Asia compared to other parts of the world. Asian cities account for only 8% of e-scooter services worldwide in early 2020, far fewer than the United States (39%) and Europe (37%).



Asia's transport emission growth exceeds global average

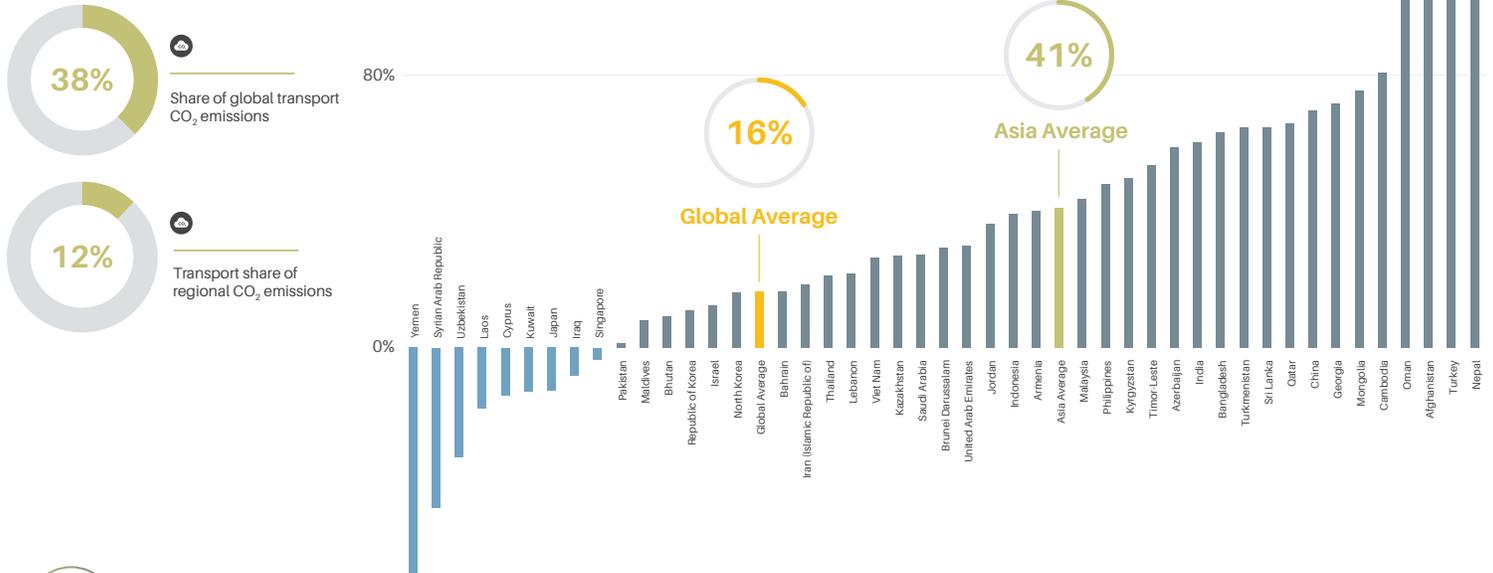
Transport CO₂ emissions in Asia grew 117% between 2000 and 2019, with 41% of this growth occurring between 2010 and 2019. This represents the **highest growth among all global regions**.

Two out of every three Asian countries exceeded the global average for transport emissions growth (16%) between 2010 and 2019.

In 2019, three countries out of the five largest transport emitters were in Asia: **China** (986 million tonnes), **India** (306 million tonnes) and **Japan** (187 million tonnes).

Road freight transport increased more than 9% in both **China** and **India** from 2016 to 2017 (latest available data).

Change in transport CO₂ emissions in Asia, 2010-2019



The COVID-19 pandemic heavily impacted shared mobility in Asia

Demand for shared mobility services in Asia was heavily impacted by the pandemic, resulting in reduced revenues and employment while forcing many companies to develop new business models. The Indian ride-hailing company Ola, for example, saw a 95% drop in revenue in April and May 2020 and terminated 1,400 employees to cut costs, while shifting resources to research and development, including the large-scale manufacturing of electric scooters.



Want to find out more about trends in specific countries in Asia?

Check out these **country fact sheets** with data on transport demand, emission trends and measures taken at the national level towards achieving sustainable, decarbonised transport systems:



China



India



Indonesia



Iran



Japan



Saudi Arabia



Read the SLOCAT country fact sheets on [fossil fuel and renewable energy use](#) (available for [India](#), [Indonesia](#) and [Pakistan](#)).



Actions in Asia focus on major elements in support of transport decarbonisation



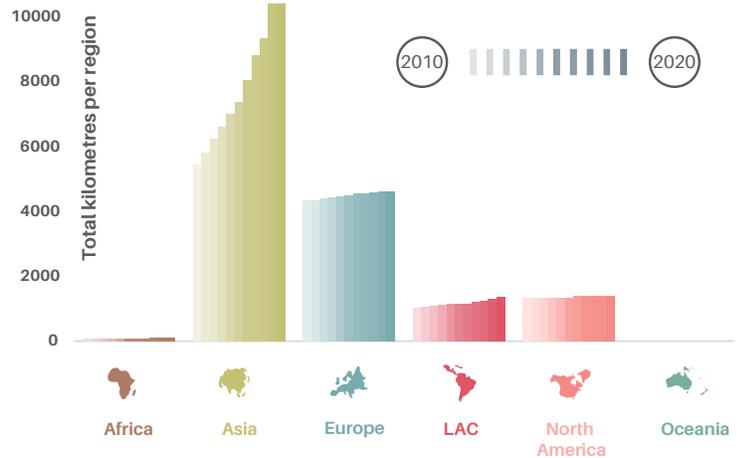
Metro rail construction and expansion in Asian cities is outpacing other regions. The region continues to invest heavily in urban rail systems, overtaking Europe for the first time in 2018 as global leader in the number of new light rail projects.

In 2019, cities in **China** expanded their subway systems by a combined 877 kilometres from the previous year, for a total length of 6,172 kilometres.

The first metro line in **Pakistan** opened in Lahore in October 2020, aiming to serve 250,000 passengers daily along its 27-kilometre route.

The first subway system in **Jakarta, Indonesia** started operations in 2019, with the opening of a metro line in March 2019 and a light rail line in December.

Growth in metro systems by region, 2010-2020



China introduced nearly half a million electric buses in its cities between 2015 and 2019, with e-buses also gaining popularity in neighbouring countries. In **Singapore**, 60 electric buses began operating as part of a trial in early 2020 and are expected to reduce around 7,840 tonnes of CO₂ annually, equivalent to the emissions of 1,700 passenger cars.



Asian countries are advancing measures around low carbon freight transport, including through policies supporting **sustainable logistics, electric freight vehicles, ecodriving (i.e., driving techniques to maximise fuel efficiency) and freight exchange platforms.** However, rising shares of road freight in the region present challenges to freight decarbonisation efforts.



Fuel economy improvements have progressed in **China, India, Japan** and **Saudi Arabia.** Average fuel economy improved at least 3% in major countries in the region (including **China, India, Indonesia, Japan, Malaysia, the Philippines** and **Thailand**) in 2017 – more than twice the global average.



In Asia, most policies to increase the share of renewables in transport are related to the use of biofuels. **China, Indonesia, Thailand** and **India** rank among the world's top biofuel producers.

The ASEAN Fuel Economy Roadmap 2018-2025, released in 2019, contains a target to reduce the average fuel consumption of new light-duty vehicles sold in the Association of Southeast Asian Nations (ASEAN) region by 26% between 2015 and 2025, reaching 5.3 litres of petrol equivalent per 100 kilometres by 2025.

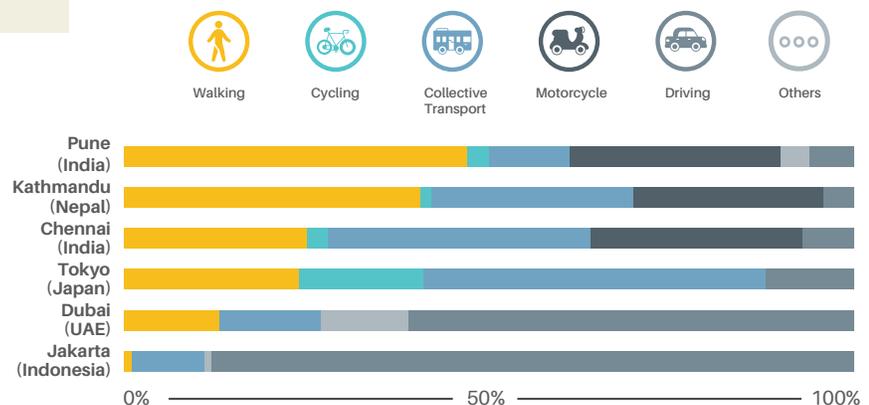
Transport electrification efforts in the region are in large part not directly linked to the use of renewable energy.



Countries such as **Indonesia, the Philippines** and **Singapore** have introduced walking and cycling campaigns, policies and infrastructure improvements in an attempt to counteract reductions in walking and cycling due to rapid motorisation trends.

A National Bicycle Act introduced in **the Philippines** in 2019 mandated the development of policies, infrastructure and facilities to integrate bicycles into the public transport system.

Share of trips by transport mode in selected cities



This regional fact sheet is part of the SLOCAT Transport and Climate Change Global Status Report - 2nd edition. The information shown is based on desk research, focusing on trends between 2019 and 2020. Data has been collected to the best knowledge and availability. The content does not represent the opinion of the SLOCAT Partnership.

Access the report at www.tcc-gsr.com and follow us via #TransportClimateStatus on [f](#) [t](#) [in](#)

Click [here](#) to see the other Regional Overviews Infographics.