

Transport and Climate Change Global Status Report - 3rd edition

First insights

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#TransportClimateStatus



Global and regional stories of where we are and where we need to get to urgently



One-stop shop for the latest available data, targets and developments

5 Thematic Sections



Transport Pathways to Reach Global Climate and Sustainability Goals



Regional Overviews



Transport and Climate Trends



Transport and Energy



Enabling Climate Action in Transport

Transport Areas



Integrated transport planning



Walking



Cycling



Shared Mobility



Public Transport



Paratransit



'App-Driven' Shared **Transport**



Rail



Road Transport



National and **International Aviation**



Shipping - Maritime and Inland Waterways



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Spotlights on cross-cutting issues



Financing



Global Supply Chains



Health



Small Island Developing States



Engagement in UNFCCC

30 Country Fact Sheets



Engaging a wide community of world-class experts and organisations

Strategic Advisors from









































Section authors, contributors and reviewers from



































































































Transport sector's dubious honour of leading global CO₂ emission growth

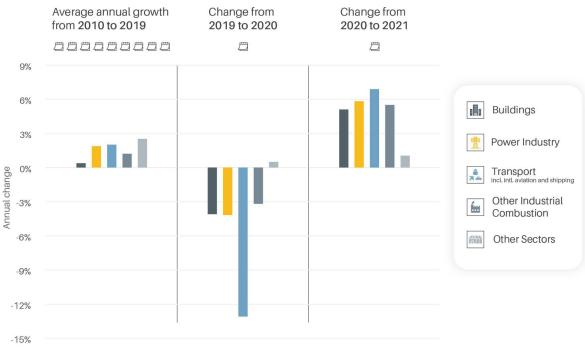


Changes in CO₂ emissions by sector from 2010 to 2019 (left), 2019 to 2020 (middle) and 2020 to 2021 (right)

From 2010 to 2019, transport was the combustion sector with the fastest CO₂ emissions growth.

It recorded 18% growth of ${\rm CO}_2$ emissions during the period.

In 2019, transport accounted for 22% of global fossil CO₂ emissions.





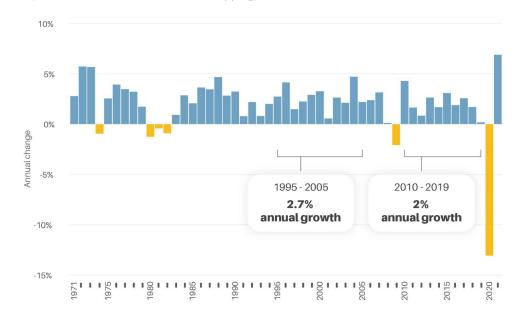
Transport emissions bounced back to pre-COVID-19 trajectory



In 2020, the pandemic briefly set transport CO₂ emissions back to 2012 levels, with the sector experiencing the biggest emissions drop among other combustion sectors.

But in **2021**, transport experienced the **strongest rebound** among other combustion sectors. People started commuting to work; international travel picked up.

Annual change in transport CO₂ emissions (incl. international aviation and shipping)





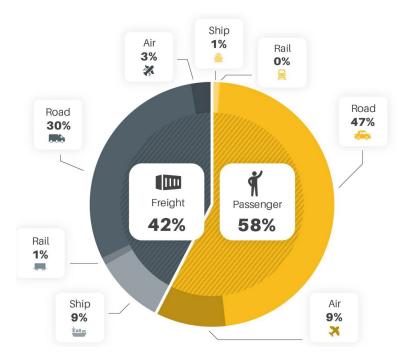
Freight plays an increasing role in transport CO₂ emissions



Transport CO₂ emissions by activity and mode, 2019

Road transport (passenger & freight) contributed **more than three-quarters** of transport CO₂ emissions.

Freight emissions kept growing: from 40% in 2018 to 42% in 2019. More goods than ever before are being transported.





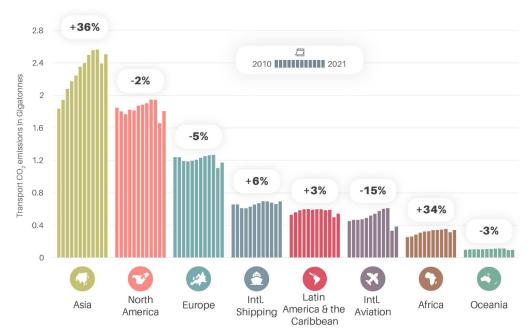
Asia continues to spearhead emissions growth



With its blooming population and economy, Asia continued to record the highest emissions growth among other regions, with 36% from 2010 to 2021.

North America, Europe and Oceania experienced emission reductions during the same period.

Transport CO₂ emission for regions and international shipping and aviation in gigatonnes from 2010 to 2021





Reductions of transport emissions are urgently required to achieve decarbonised pathways

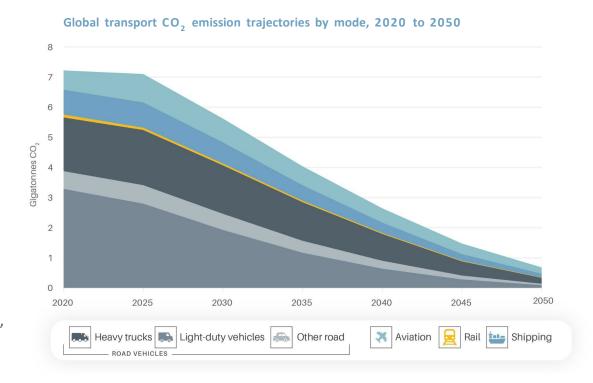


Achieving transport pathways that limit global warming to 1.5°C with no or limited overshoot will require a 59% reduction of CO₂ emissions from transport by 2050, compared to 2020 levels.

Meeting the IEA net-zero emission scenario, will require a 90% reduction of CO₂ emissions from transport by 2050, compared to 2020 levels.

Different modes will require different decarbonisation levels:

i.e. road vehicles contribute more than rail, shipping and aviation.





Avoid measures show the biggest potential towards oil independence, followed by Shift and Improve measures

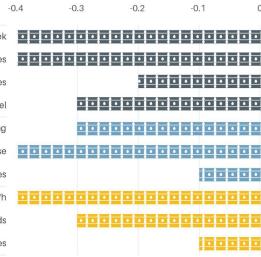
Major actions to reduce oil dependency

More about Avoid-Shift-Improve at www.slocat.net/asi





	Work from home up to three days a week
	Implement car-free Sundays in cities
	Alternate car access to roads in large cities
	Reduce business air travel
ncentivise pub	blic transport, micro-mobility, walking and cycling
Increase o	ear sharing and adopt practices to reduce fuel use
1	Use high-speed and night trains instead of planes
Red	duce speed limits on highways by at least 10 km/h
Promoto officio	ent driving for freight trucks and delivery of goods
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Reduced million barrels of oil per day in advanced economies



Access to public transport in Africa and Asia is still falling short



Average percentage of urban population with convenient access to public transport

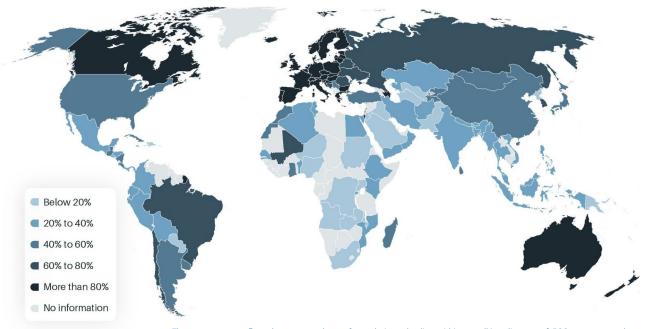
Convenient access to public transport

(% of urban population):

3	Africa	32%







The percentages reflect the average share of population who live within a walking distance of 500 metres to a low-capacity public transport system (bus, tram etc.) and 1000 metres to a high-capacity public transport system (trains, ferries etc.).



International aviation is still recovering from the COVID-19 hit, while shipping remains stable



International aviation CO₂ emissions took a 45% hit in 2020, falling to pre-millennium levels.

From 2020 to 2021, international aviation CO₂ emissions increased by 15%, still remaining 37% below 2019 levels.

Despite the drastic pandemic impacts on global trade, international shipping CO₂ emissions only fell by 2% in 2020. By 2021, they were higher than pre-pandemic levels.





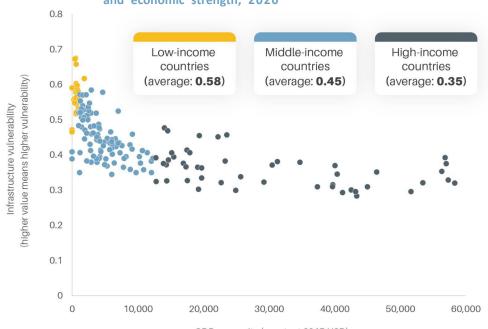
Transport adaptation and resilience in LMICs is still underserved



Low-income countries experience higher infrastructure vulnerability than middle- and high-income countries.

As climate change impact intensifies, they require more support to design and adopt new, resilient, low carbon transport systems.





GDP per capita (constant 2015 USD)

Source: University of Notre Dame (2022), ND-GAIN Country Index, https://gain.nd.edu/our-work/country-index/ (accessed 20 August 2022); World Bank (2022), GDP (constant 2015 US\$), https://data.worldbank.org/indicator/NY.GDP.MKTP.KD (accessed 20 August 2022).



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