

The ITF Transport Outlook 2021

Reshaping mobility in the wake of Covid-19

Key Findings:
Reshaping transport for a cleaner environment and fairer societies



The ITF Transport Outlook 2021

An equitable transition to sustainable mobility in the post-pandemic era.

<https://www.itf-oecd.org/itf-transport-outlook-2021>

Results available on [stats.OECD database](https://stats.oecd.org)



The ITF Transport Outlook 2021

Transport Sectors

Urban Passenger
Transport

Non-urban Passenger
Transport

Freight Transport

Policy Scenarios

Recover

Reshape

Reshape+

Modelling Outputs

Transport demand

CO₂ emissions

Other

The three policy scenarios

Recover

Current trajectory.
Implemented and announced commitments.
Established economic practices.

Reshape

A paradigm shift.
Transformational commitments.
Green recovery.

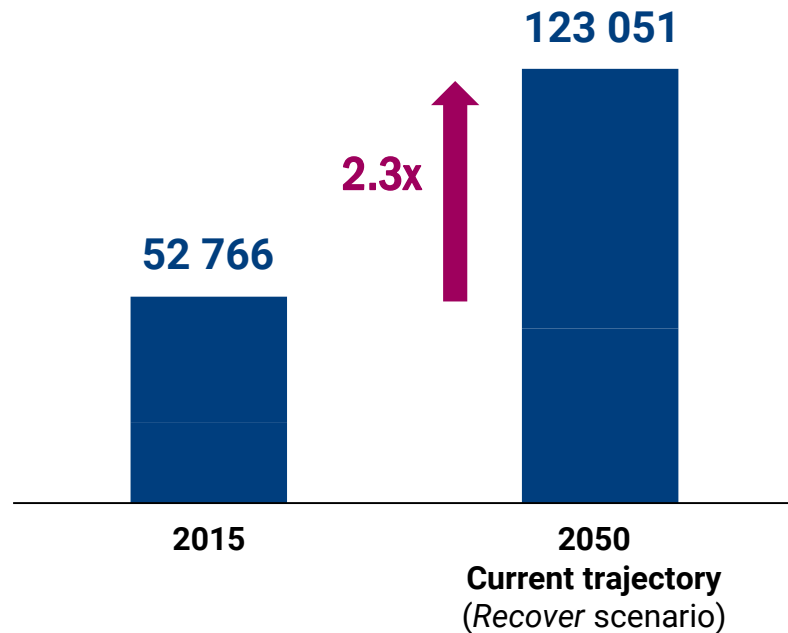
Reshape+

Reinforce Reshape.
Leverage Covid-19 recovery.
Achieve decarbonisation faster and with more certainty.

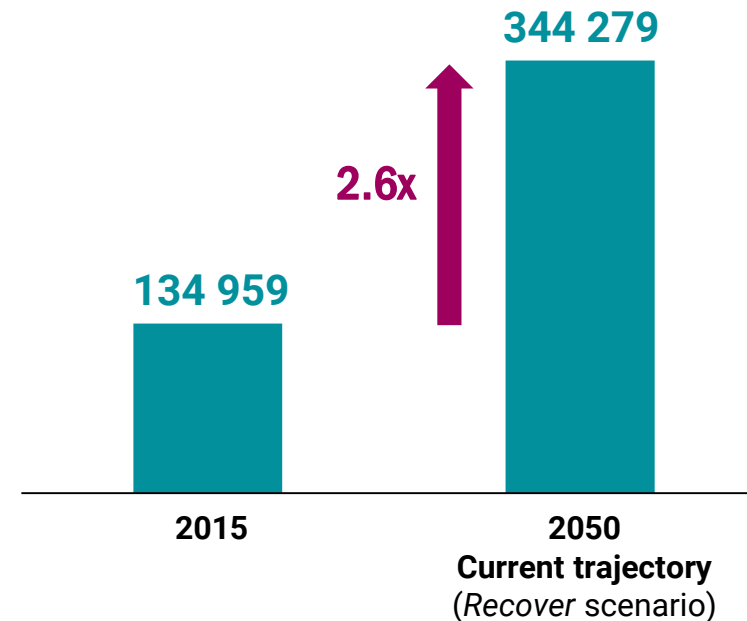
The current trajectory

Global demand for transport will more than double

Passenger transport demand
(billion passenger-kilometres)



Freight transport demand
(billion tonne-kilometres)



Under the current policy trajectory, **passenger activity will increase 2.3-fold** to 2050. **Freight transport will grow by a factor of 2.6**. Population growth and increasing prosperity drive increased demand in all scenarios.

Transport CO₂ emissions will grow 16%

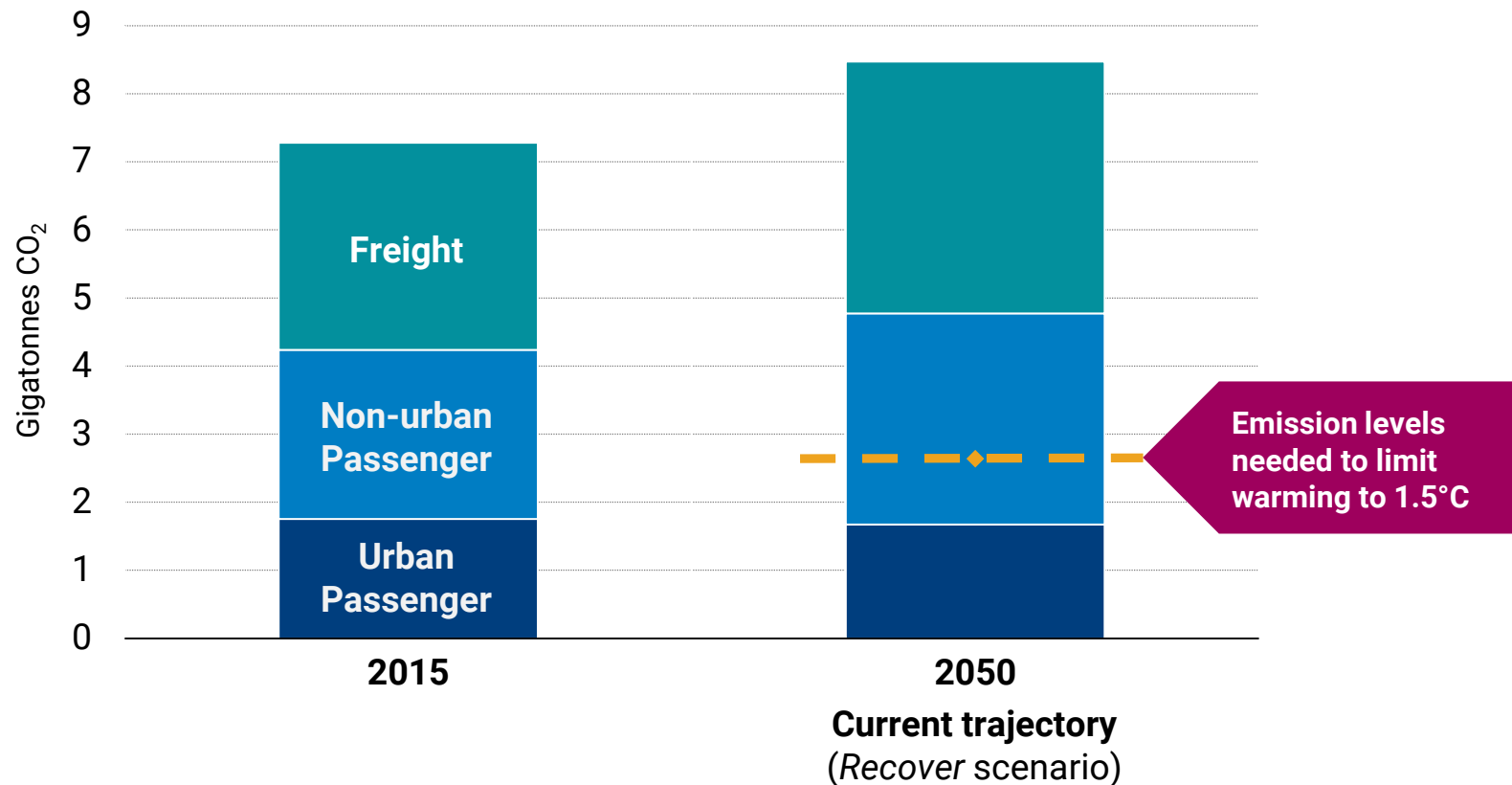
Under today's policies, transport will emit **16% more CO₂** in 2050 than 2015

Emissions from passenger mobility would **rise by 13%**

Freight emissions would be **22% higher**

Emissions would exceed transport's carbon budget **more than three times**

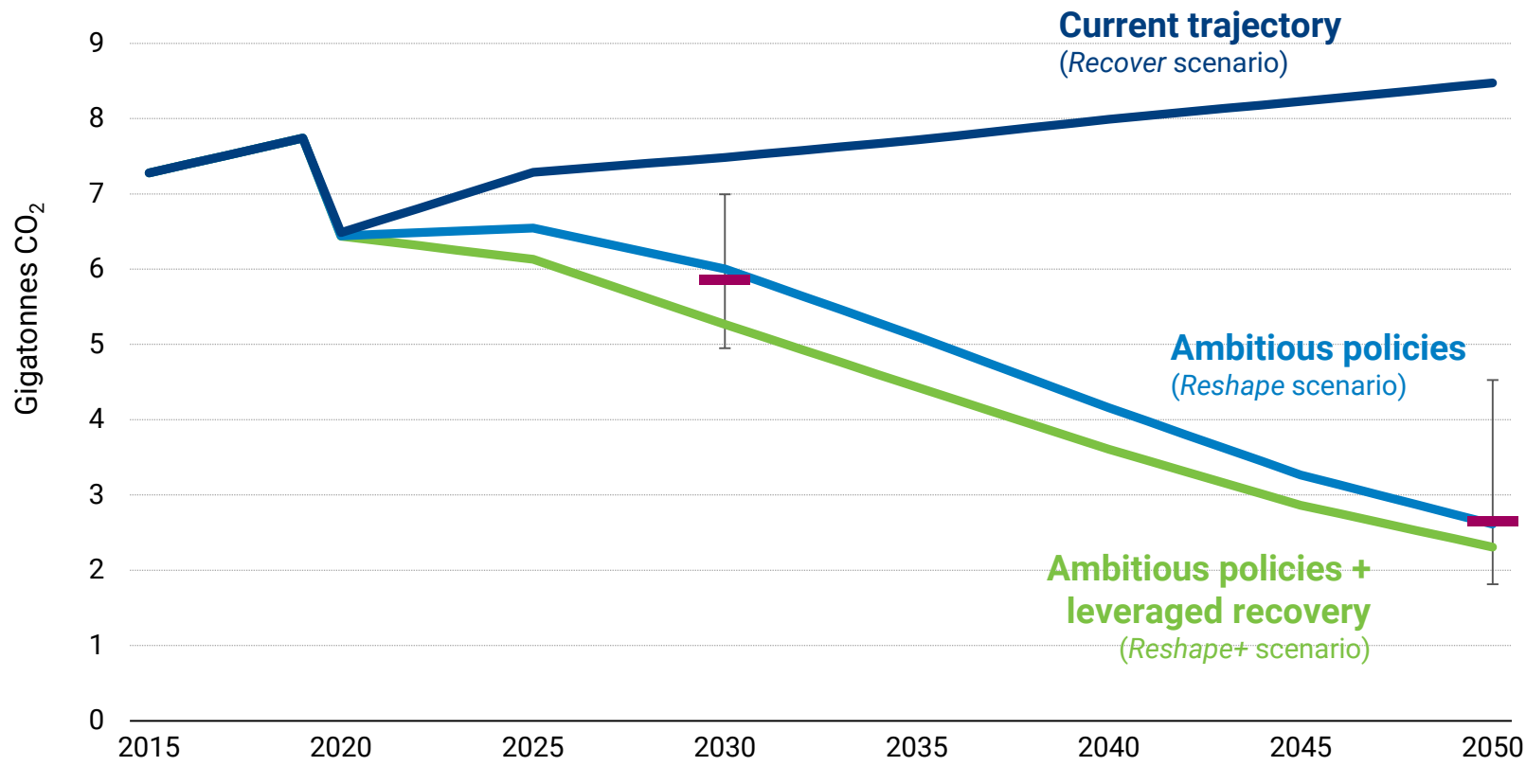
Total transport CO₂ emissions by sector
(Gigatonnes CO₂)



Note: Estimates of the emissions levels needed to meet 1.5C warming levels were sourced from <https://data.ene.iiasa.ac.at/iamc-1.5c-explorer> similarly to ICCT (2020). Transport sector emissions pathways with low or no overshoot were selected before estimating the median emissions in each year. Emissions of black carbon are excluded as these are not estimated in the ITF or IEA MoMo models.

Possible future trajectories

Highly ambitious policies can reverse the growth of transport CO₂ emissions



Transport CO₂ emissions are **set to rise**, not fall

CO₂ emissions could be **nearly 70% less** in 2050 compared to 2015

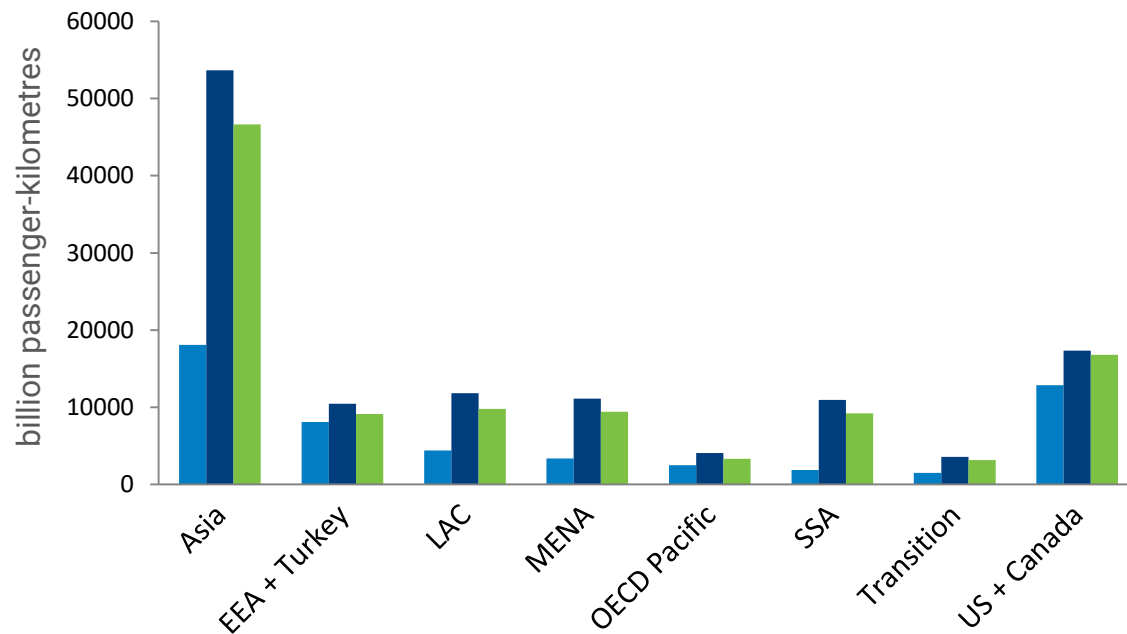
Transport's carbon budget to limit global warming to 1.5°C

Total transport CO₂ emissions by scenario
(Gigatonnes CO₂)

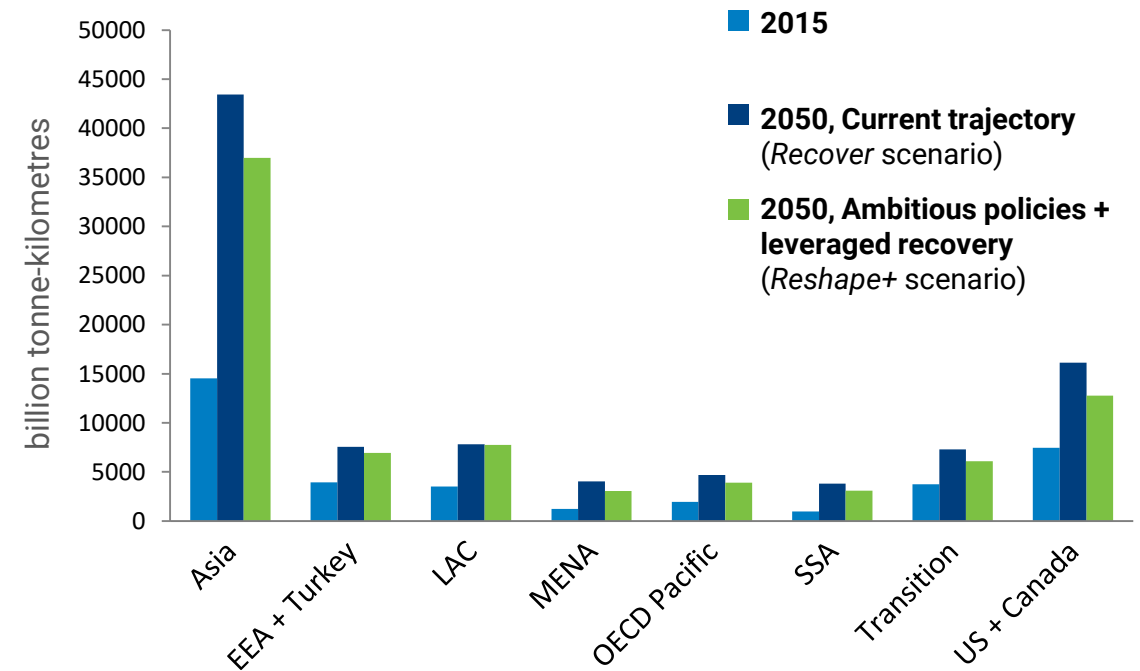
Note: ITF models used in this Outlook are typically run by five-year increments, therefore the 2020 to 2025 recovery trend may not necessarily be linear despite being shown as such in the figure. The shape of this "recovery curve" will depend on policy implementation and economic trajectories. Estimates of the emissions levels needed to meet 1.5C warming levels were sourced from <https://data.ene.iiasa.ac.at/iamc-1.5c-explorer> similarly to ICCT (2020). Transport sector emissions pathways with low or no overshoot were selected before estimating the median emissions in each year, error bars represent the 25th and 75th percentiles of scenarios. Emissions of black carbon are excluded as these are not estimated in the ITF or IEA MoMo models.

Demand is expected to grow across all regions, at different rates

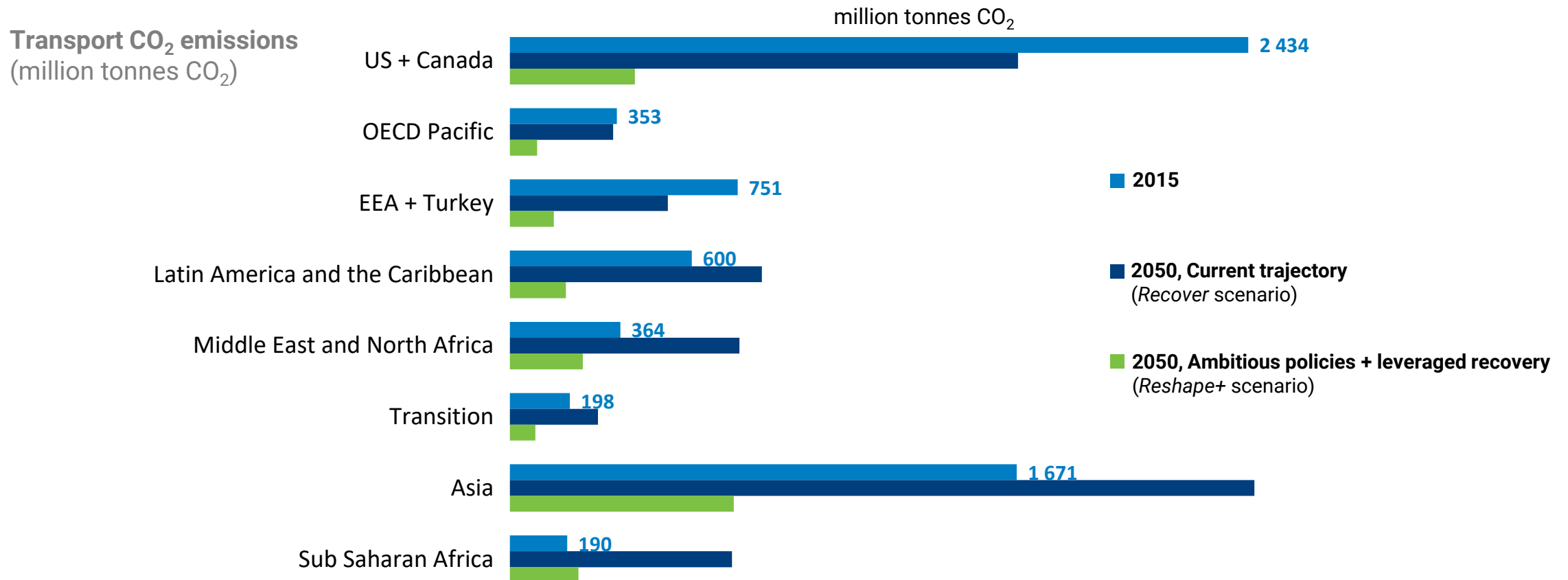
Passenger transport demand
(billion passenger-kilometres)



Freight transport demand
(billion tonne-kilometres)



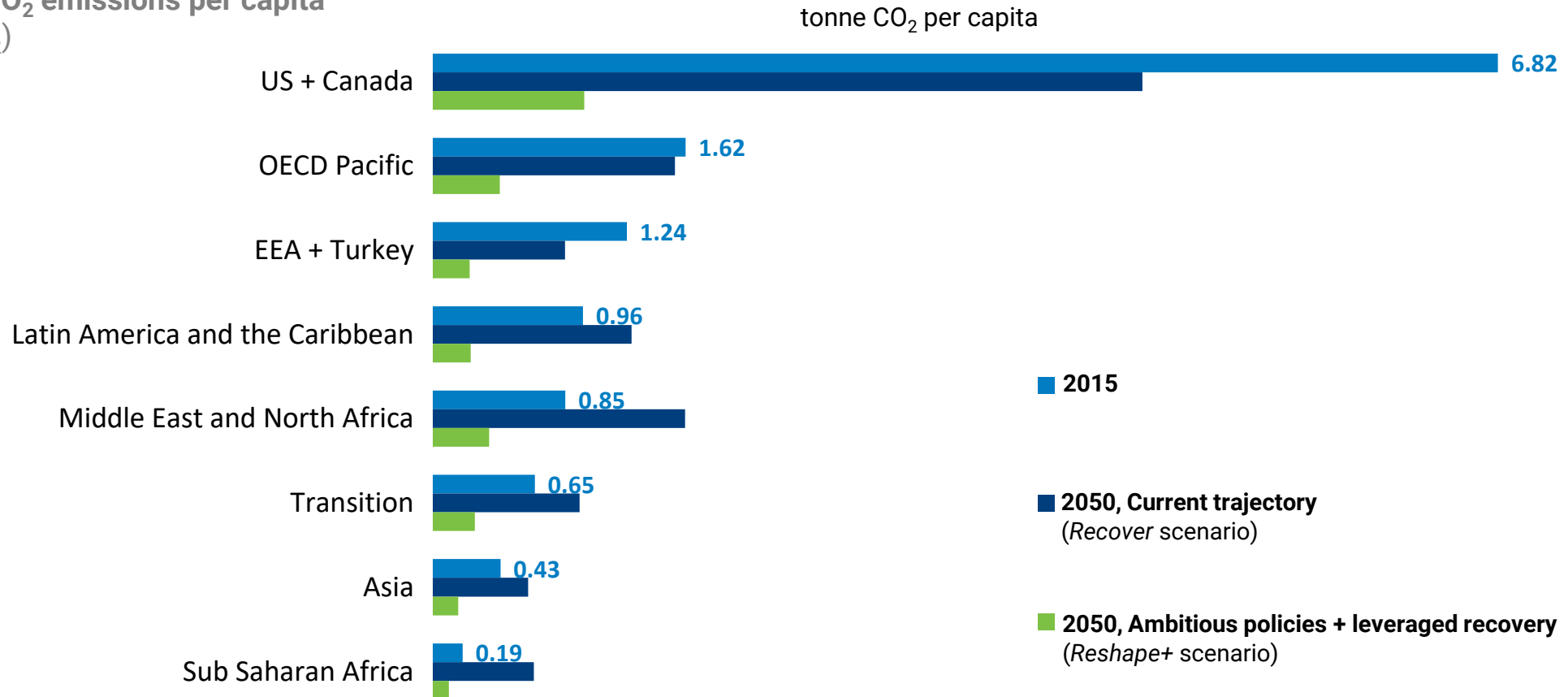
Current policies could lead to increased emissions in developing regions



Most developing regions may **increase emissions significantly** under current policies, but could **achieve strong reductions** with ambitious policies.

Individuals in the largest economies are the highest emitting

Transport CO₂ emissions per capita
(tonnes CO₂)



Developed countries **emit the most CO₂** from transport, but also have the **largest capital and greatest technological means** to reduce CO₂ emissions.

Q&A