

E-mobility in Asia and the Pacific

State and Trends

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Asian Transport Observatory

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asiantransportobservatory.org



52 Economies (ADB Members + Russia and Iran)

460 Urban Centers (412 Asia-Pacific, 48 International)

47 Urban Centers with a detailed review * To be increased to 50

- Caters to various stakeholder groups
- Flexible approach towards indicator inclusion
- Multi-scalar data
- Wide range of indicator sources
- Includes policies and measures
- Includes relevant sectors outside transport



ATO National Database

Explore over 450 transport indicators from 51 economies divided across nine categories



ATO National Transport Policy Documents Database

Explore close to 1100 transport policy documents in Asia and the Pacific



ATO Urban Database

Explore more than 260 urban level transport indicators across nine categories



ATO Cost Database

Explore more than 1,300 transport-related projects and benchmark their costs within subregions or income groups in Asia and the Pacific

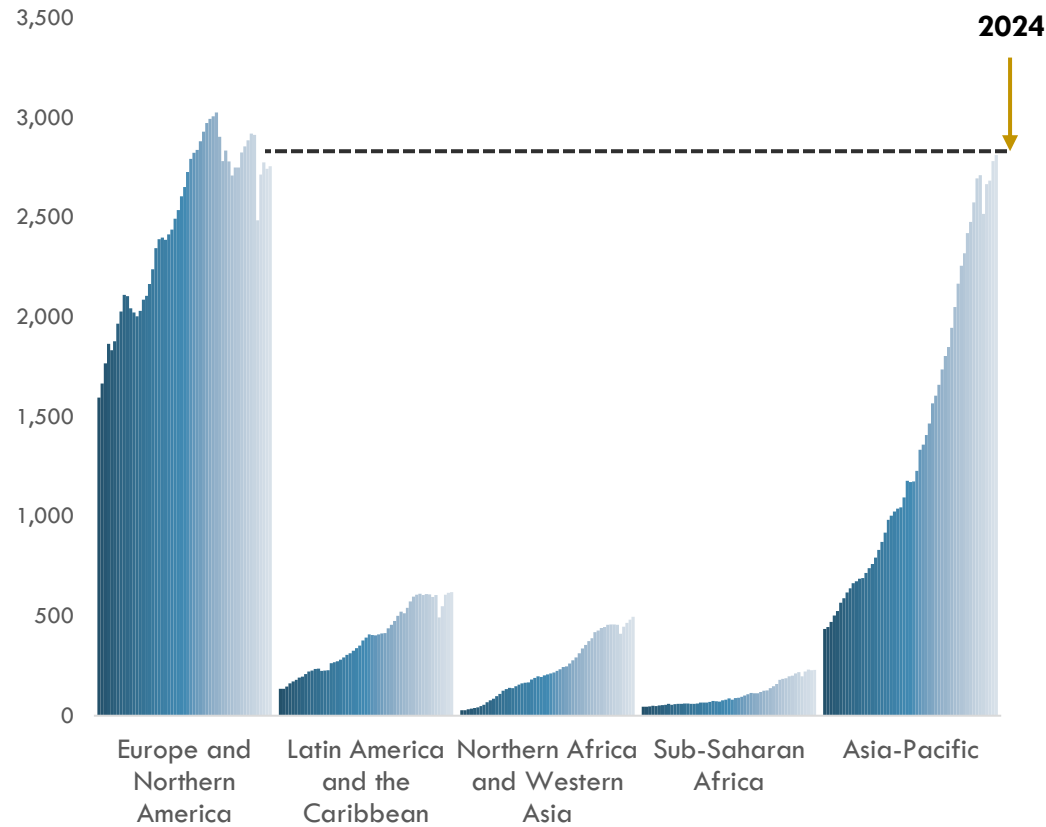


ATO Analytical Outputs

Read about analysis made using ATO transport data and policy information

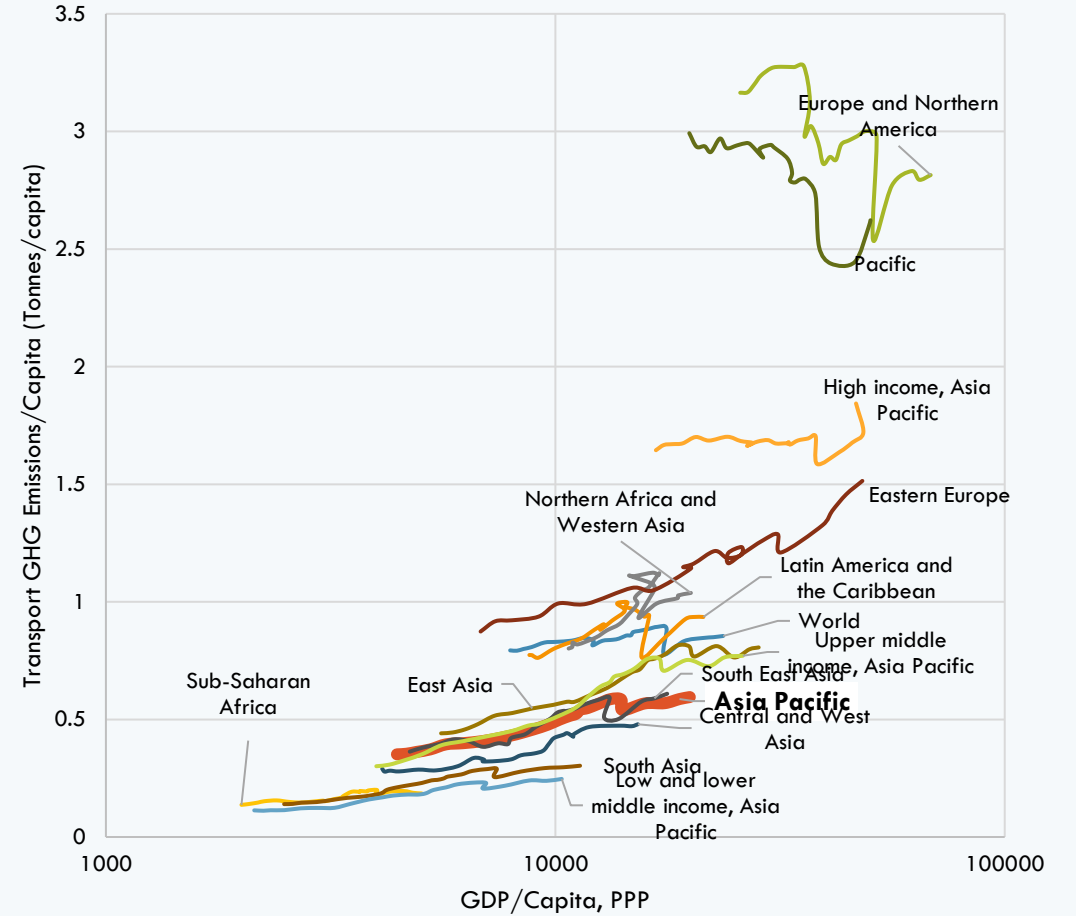
Transport GHG Emissions

Transport CO2 Emissions (million tons) (2000-2024)



Source: ATO visualization based on data from Crippa et al. (2023)

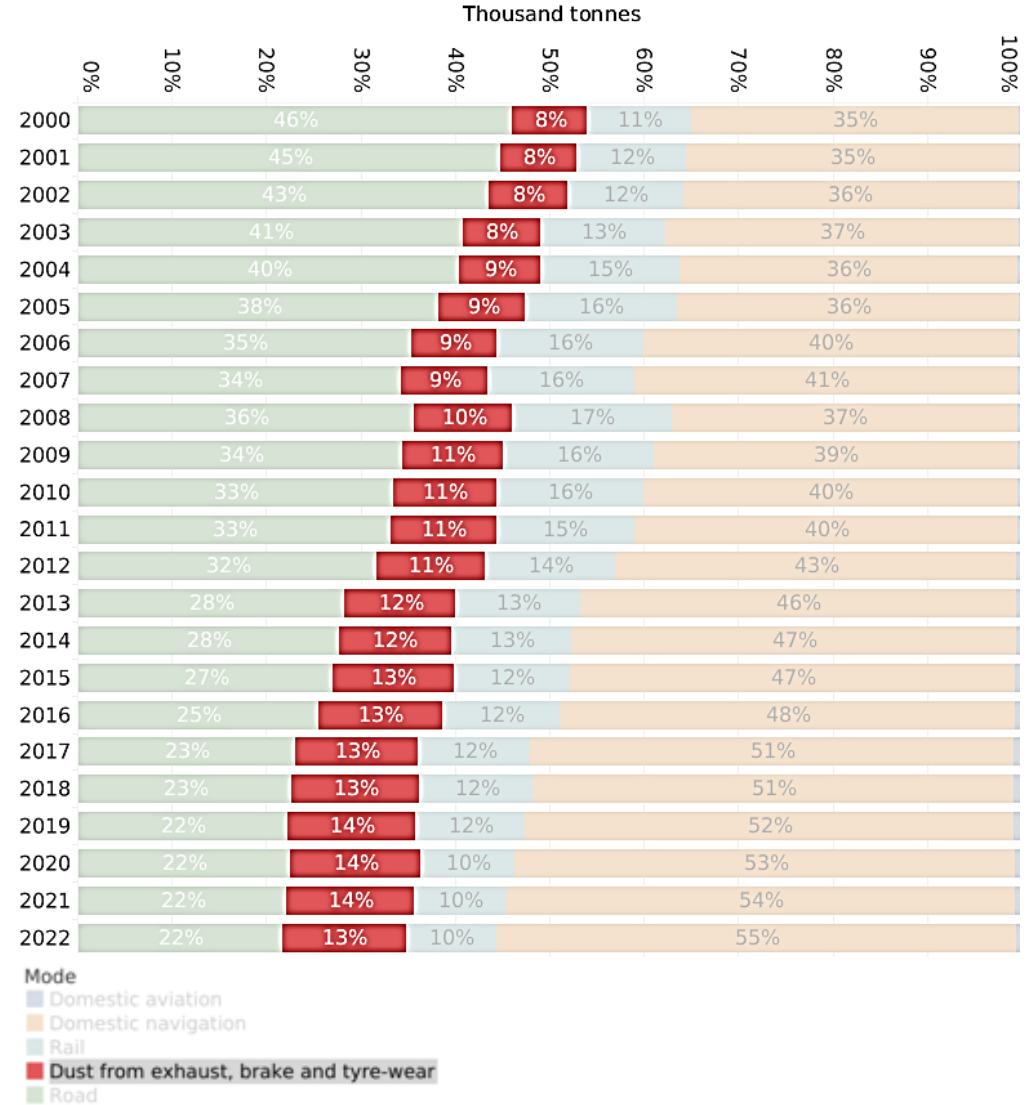
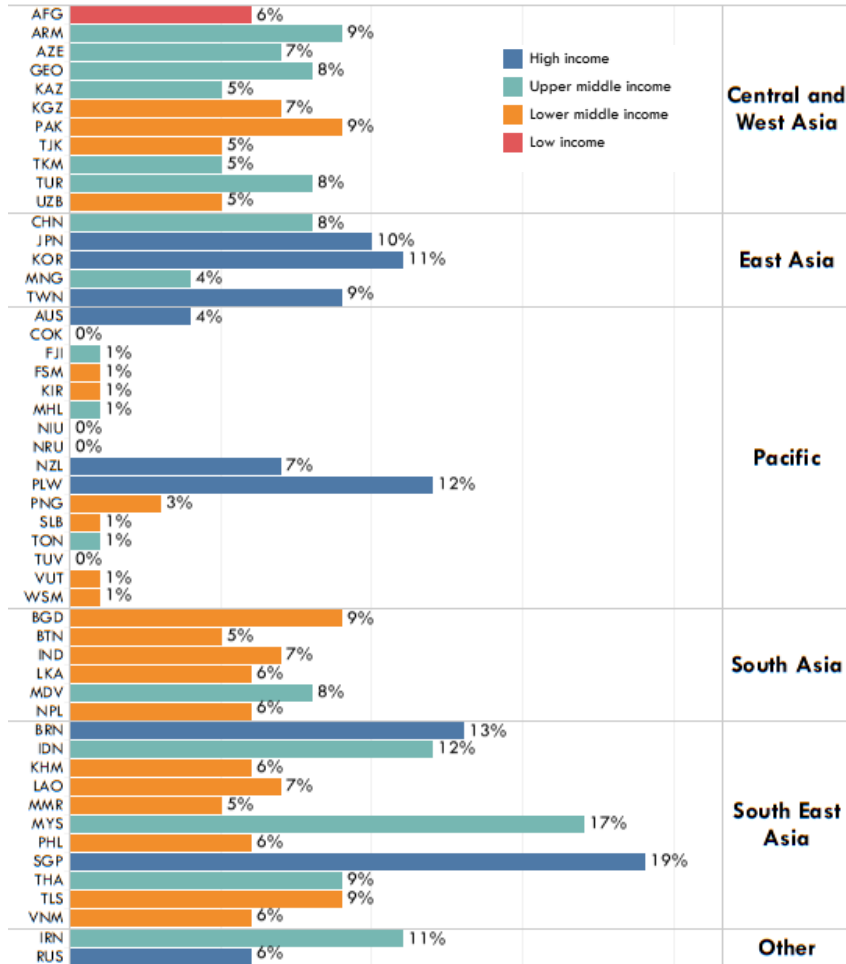
Transport GHG per Capita and GDP per Capita (2000-2024)



Source: ATO analysis and visualization based on JRC & IEA (2025) and World Bank (2025)

PM 2.5 emissions

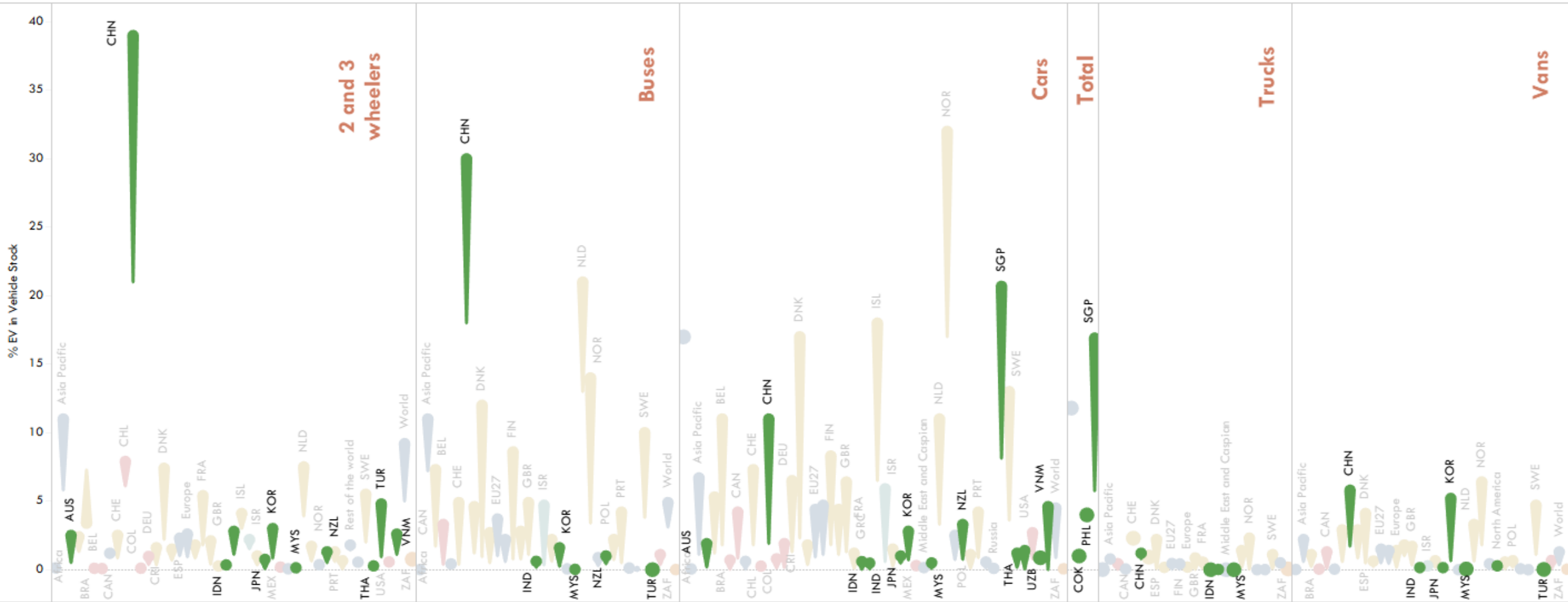
Transport Contribution (%) to PM2.5 emissions



Source: ATO analysis and visualization based on State of Global Air Initiative

EV Penetration Rates

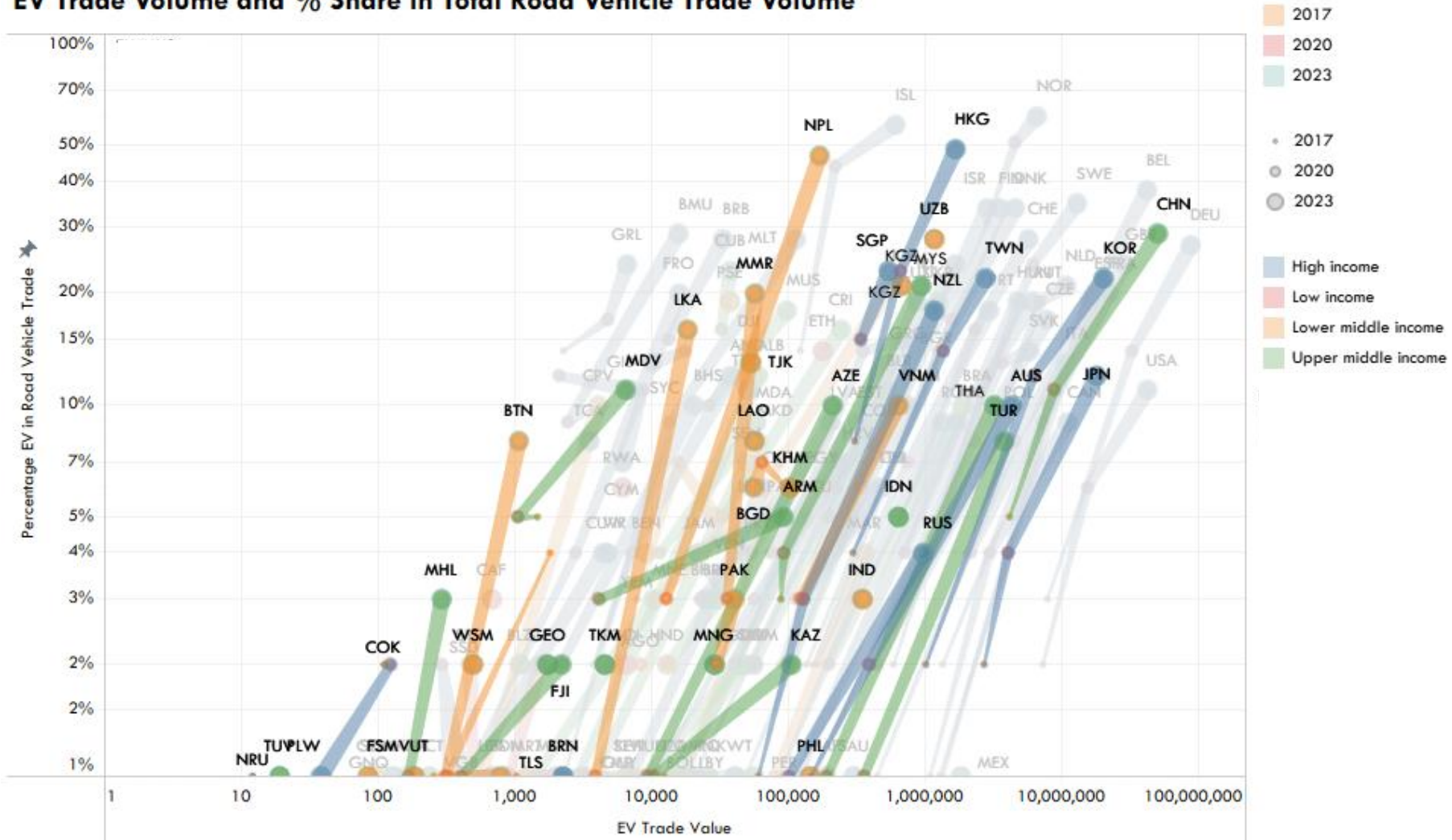
EV % in Vehicle Stock by Vehicle Type 2000 and 2024



Source: ATO analysis and visualization based IEA's EV Data Explorer and other sources

Trade – Electric Vehicles

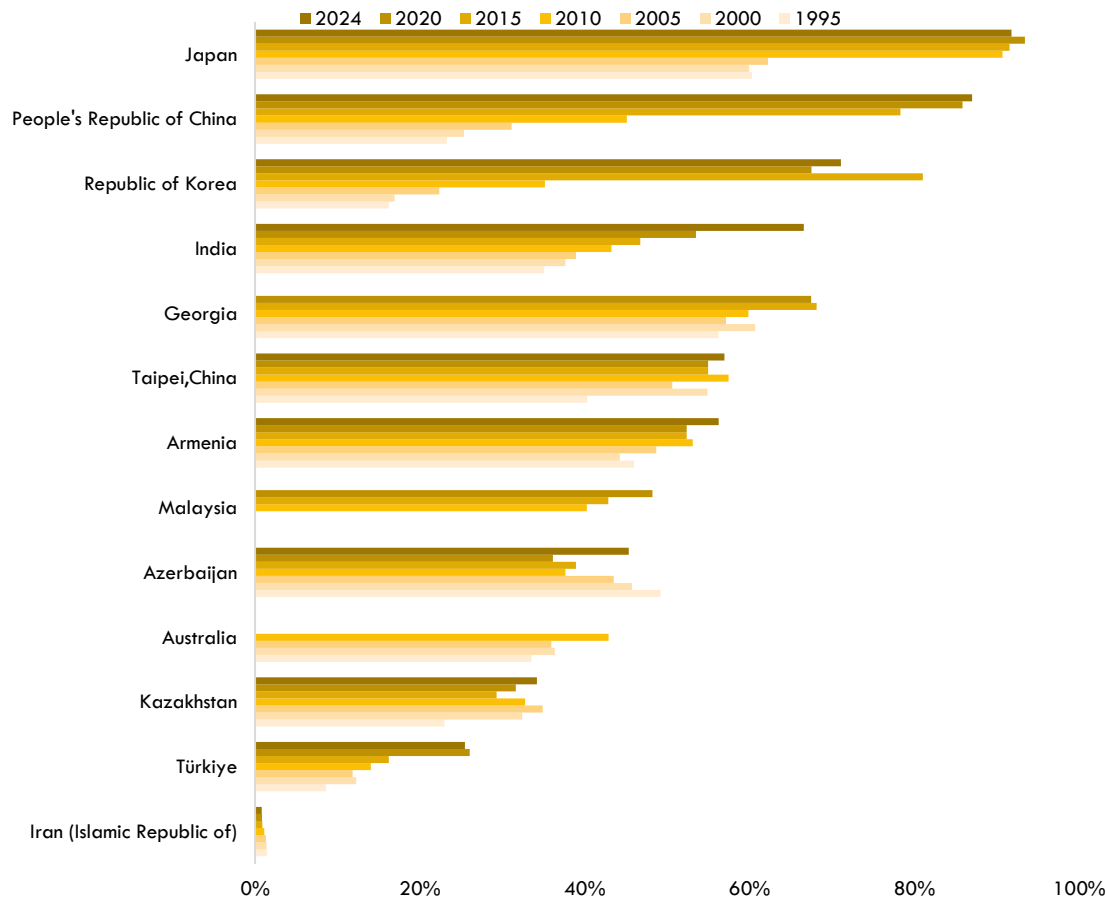
EV Trade Volume and % Share in Total Road Vehicle Trade Volume



Source: ATO analysis and visualization based on data from ITC

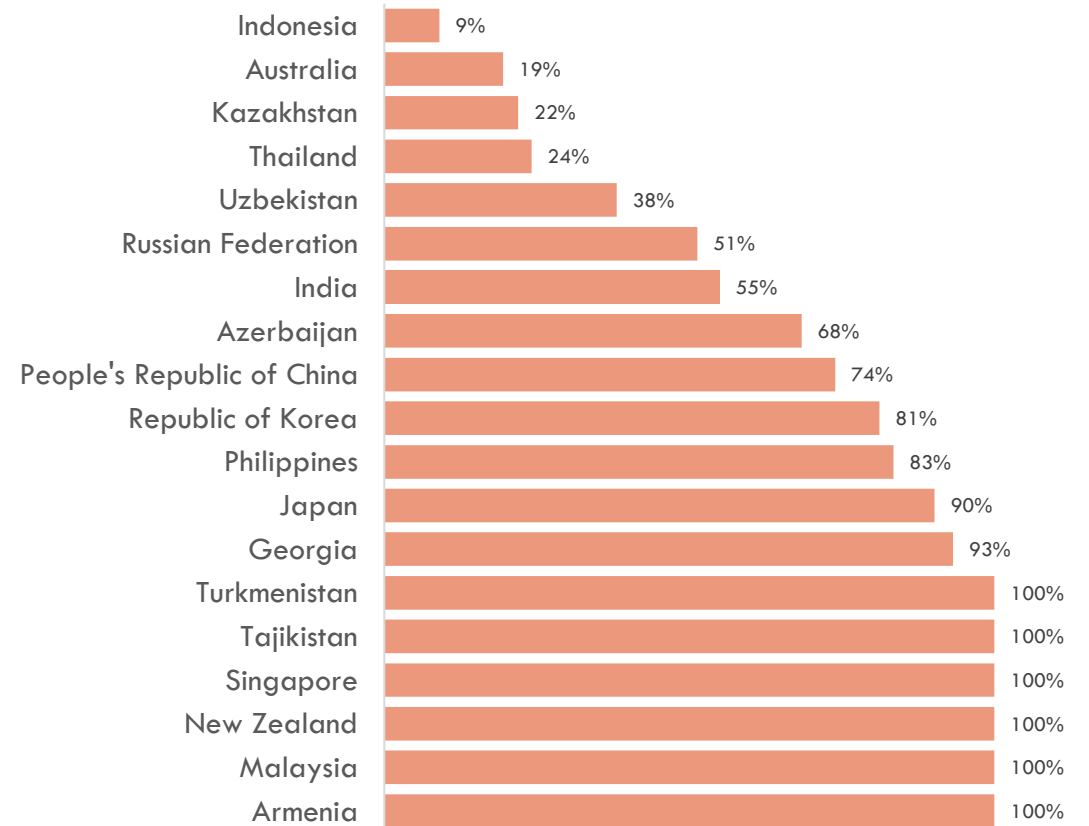
Railway Electrification

Figure 28. Share of Electrified Locomotives and Multiple Units



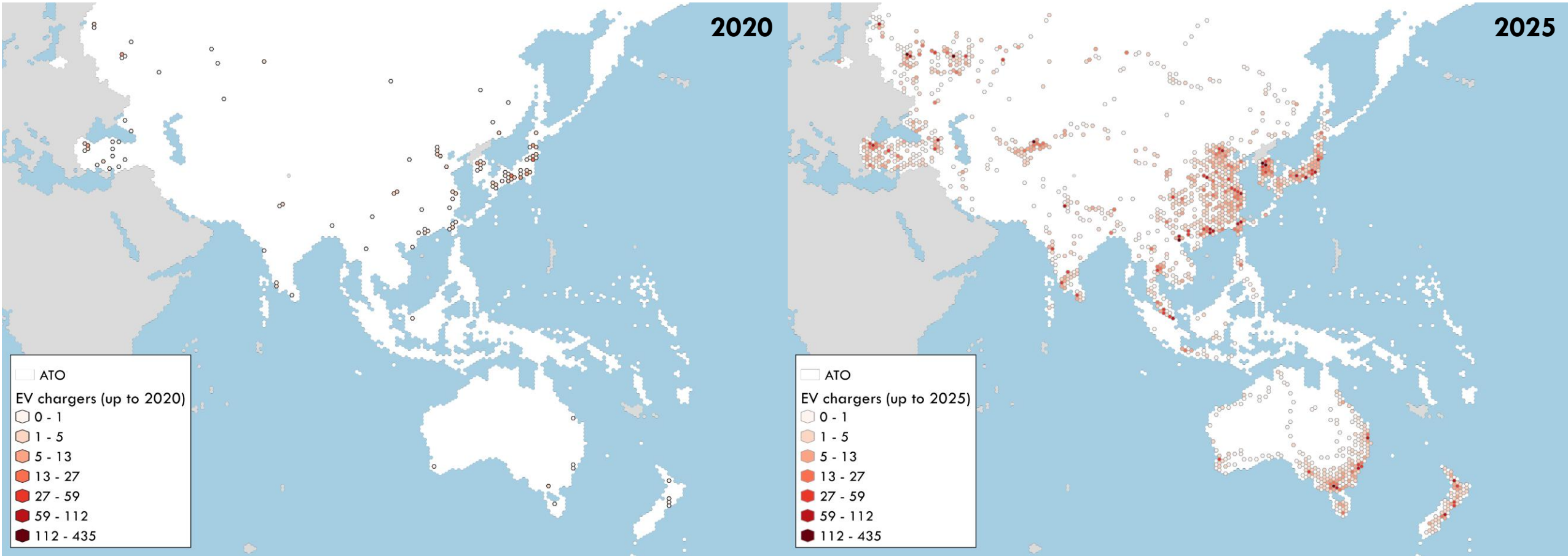
Source: ATO analysis and visualization based on JRC & IEA (2025) and UIC (2025)

Share of electricity in rail energy consumption, % (2022)



Source: ATO analysis and visualization based on UN Energy Stats

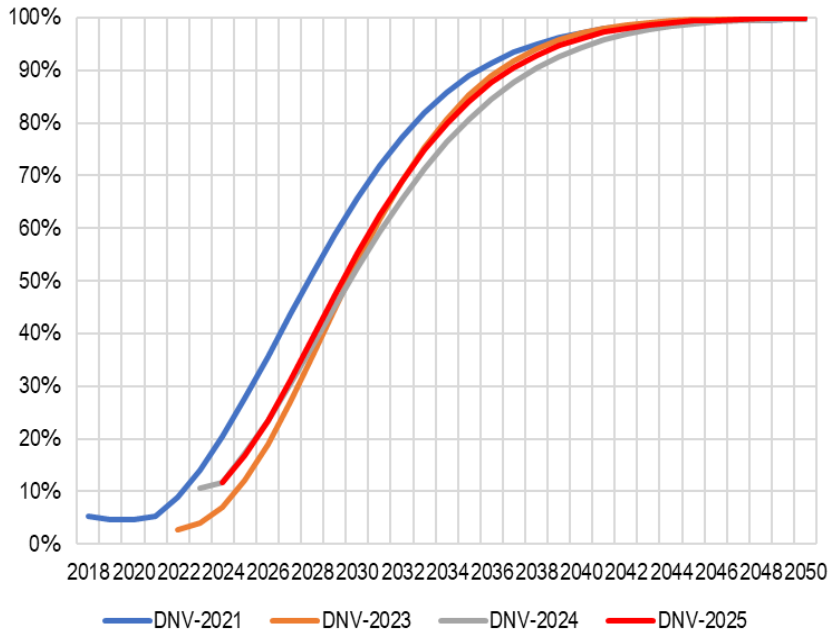
Charging Infrastructure



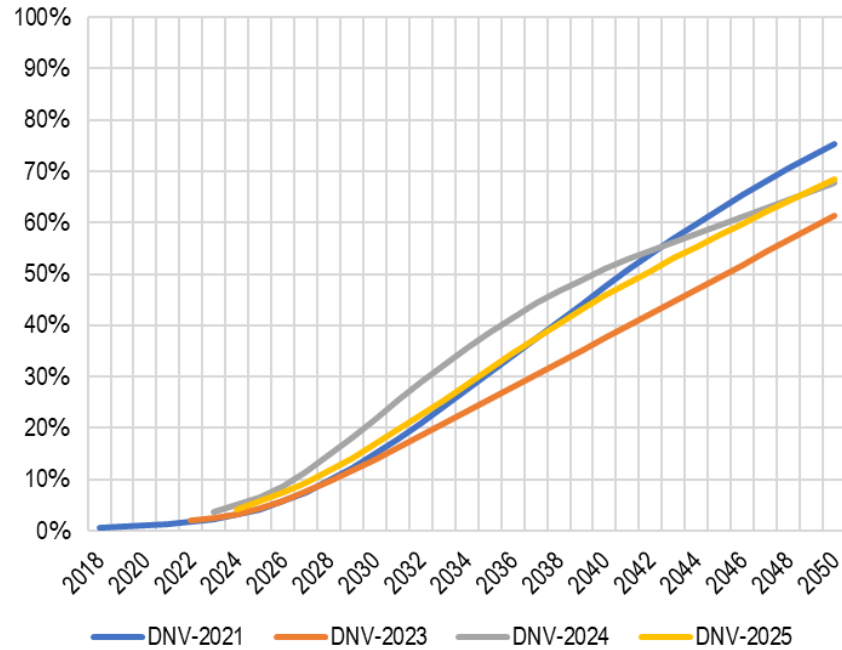
Source: ATO visualization based on OSM data

EV Shares - Outlook

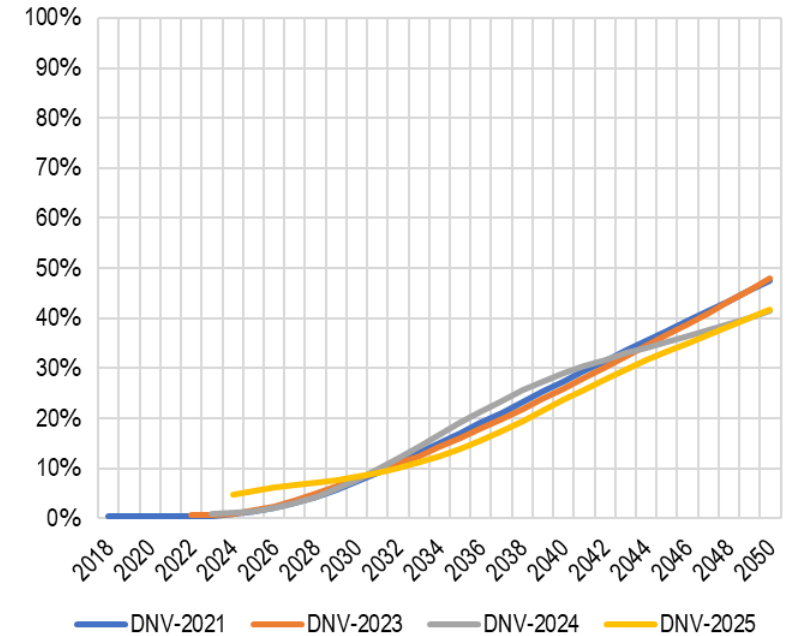
Asia's Electric Two Wheeler Share in Two Wheelers



Electric Passenger Vehicle Share in Passenger Vehicles

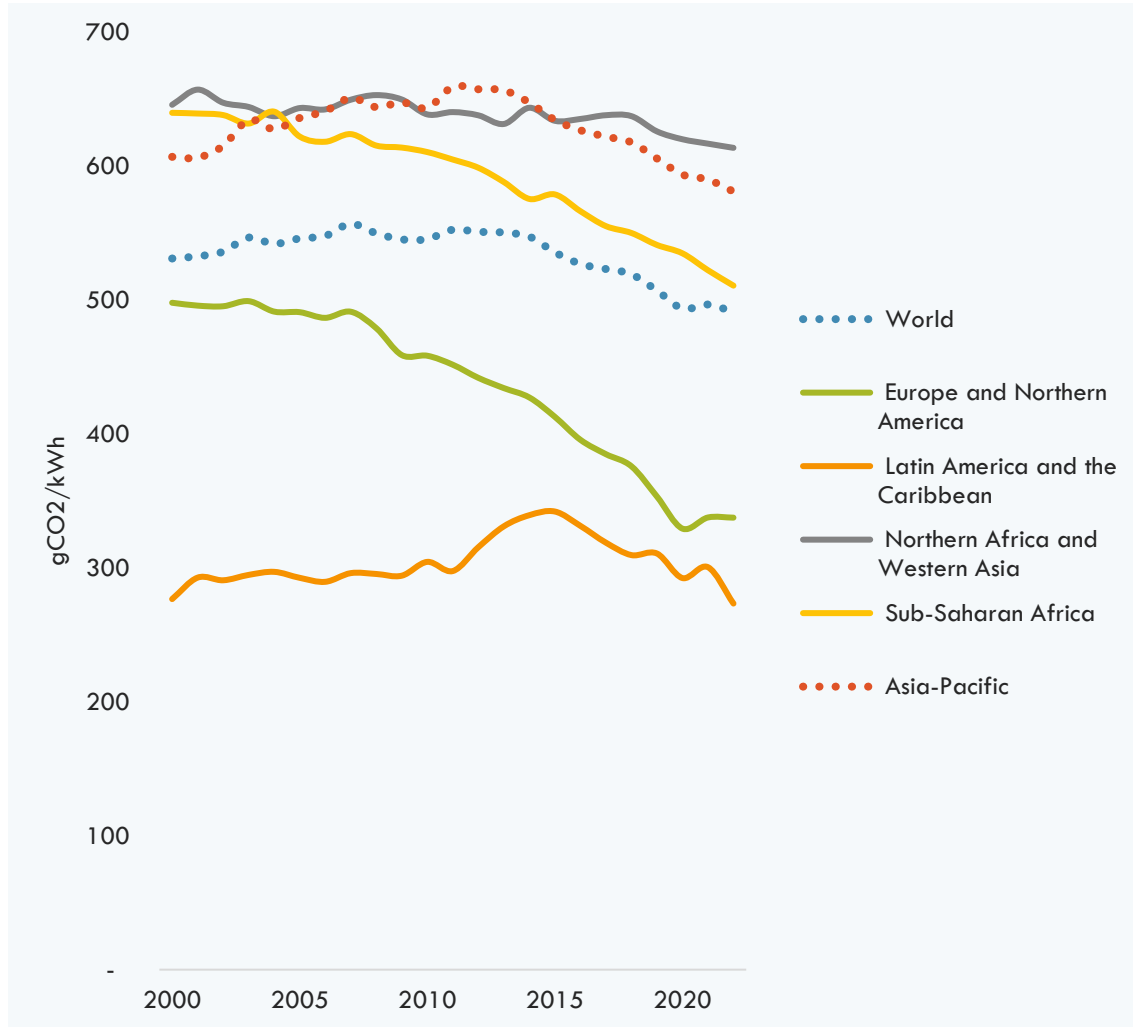


Electric Commercial Vehicle Share in Total Commercial Vehicles



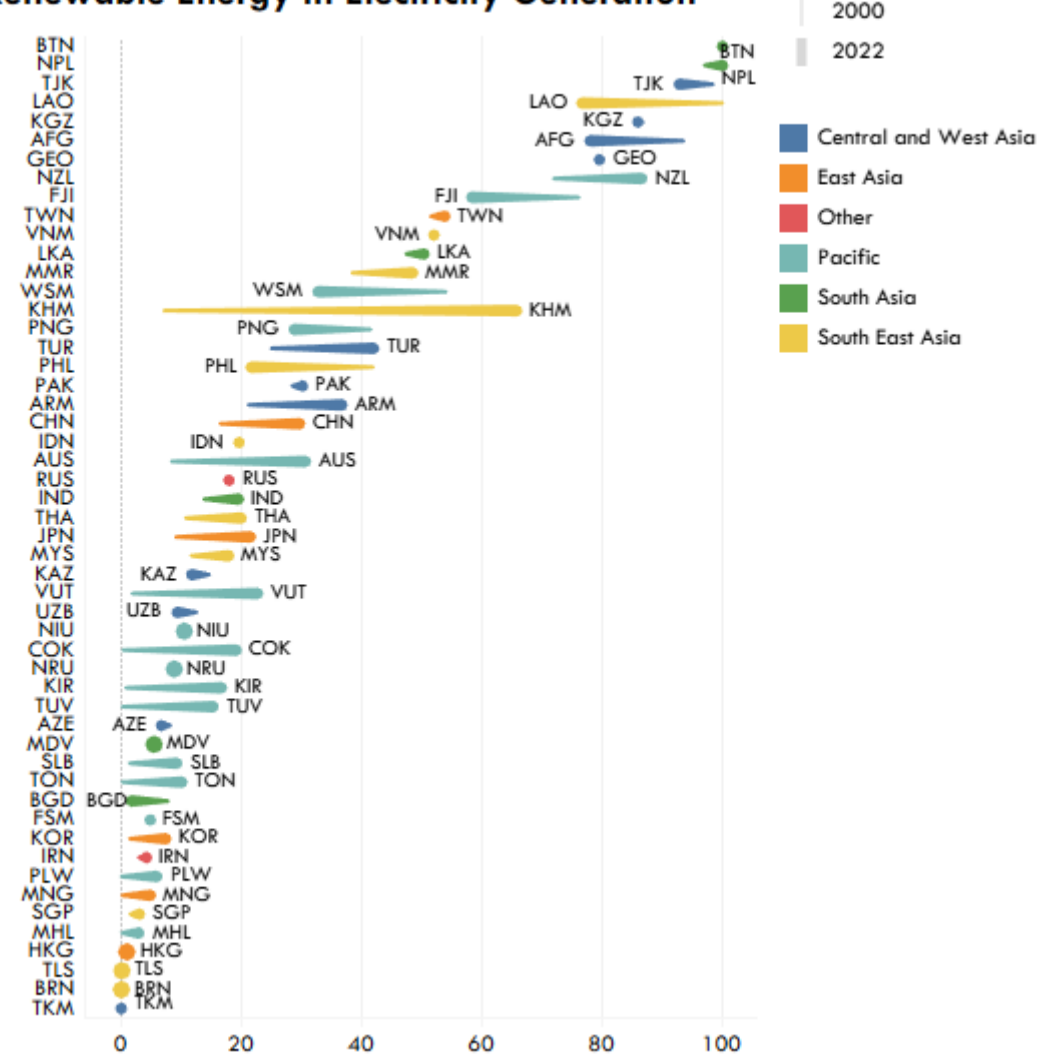
Source: ATO visualization based on DNV's Energy Transition Outlooks

CO2 Emission Factors – Electricity Grids



Source: ATO visualization based on Ember

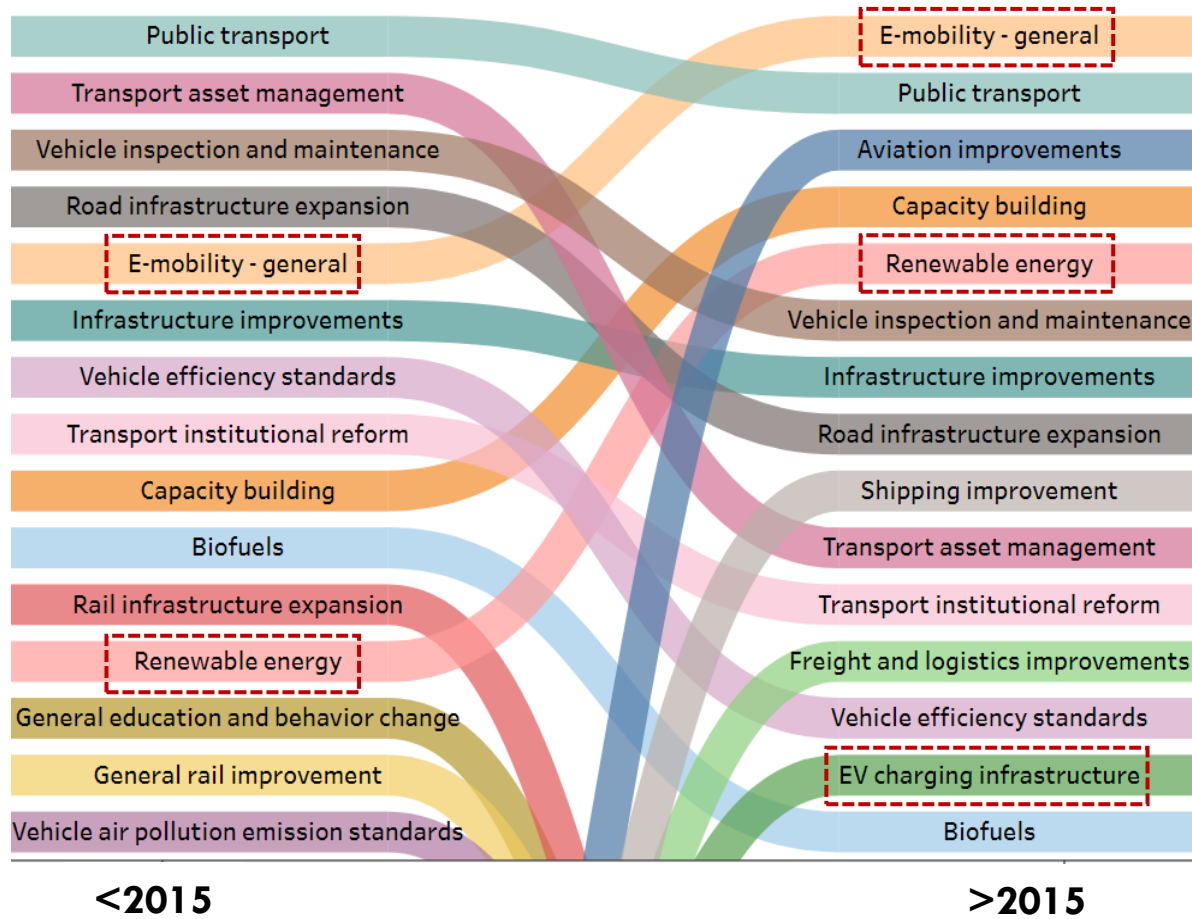
% Renewable Energy in Electricity Generation



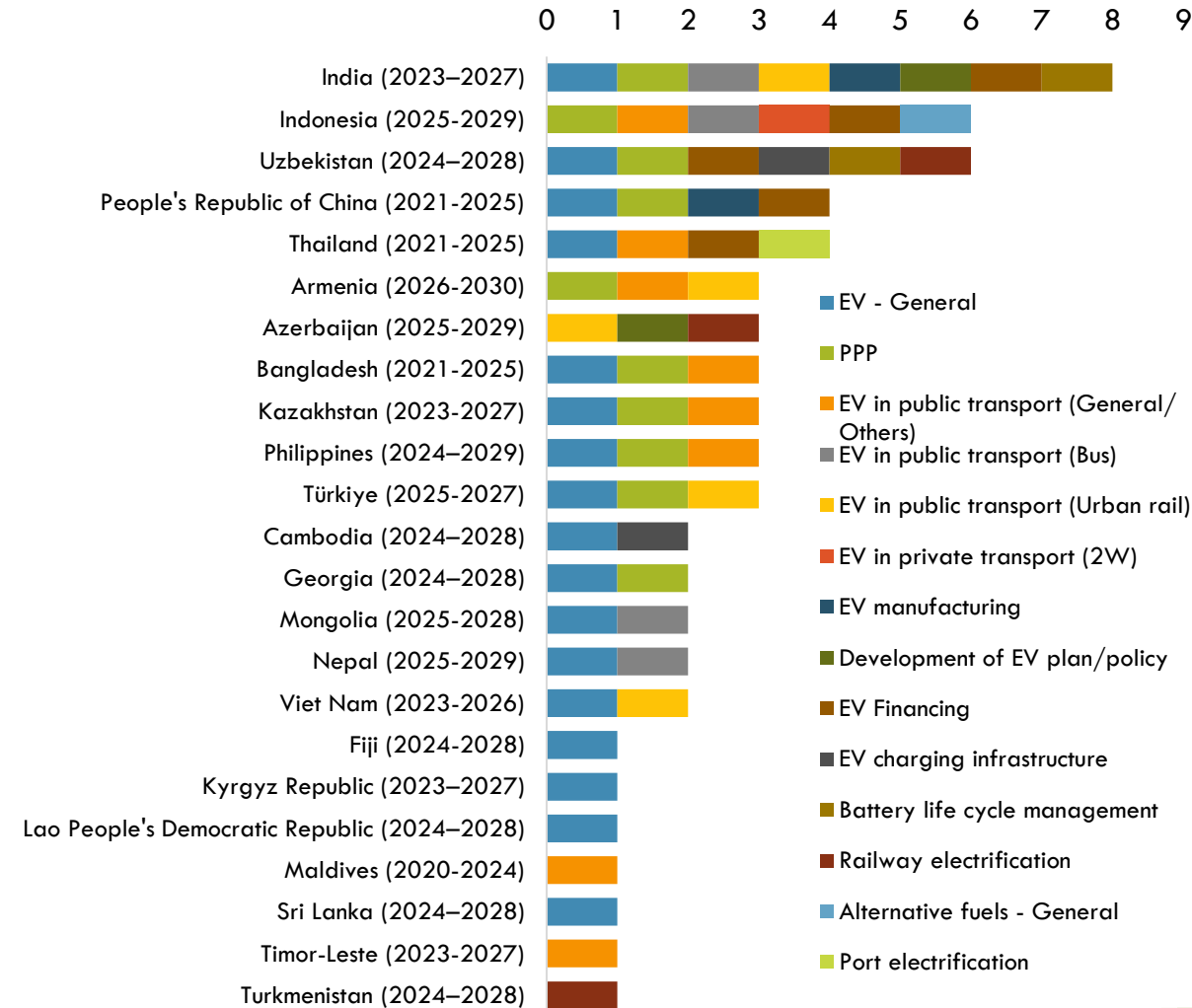
Source: ATO visualization based on IRENA

E-mobility in Priorities and Measures

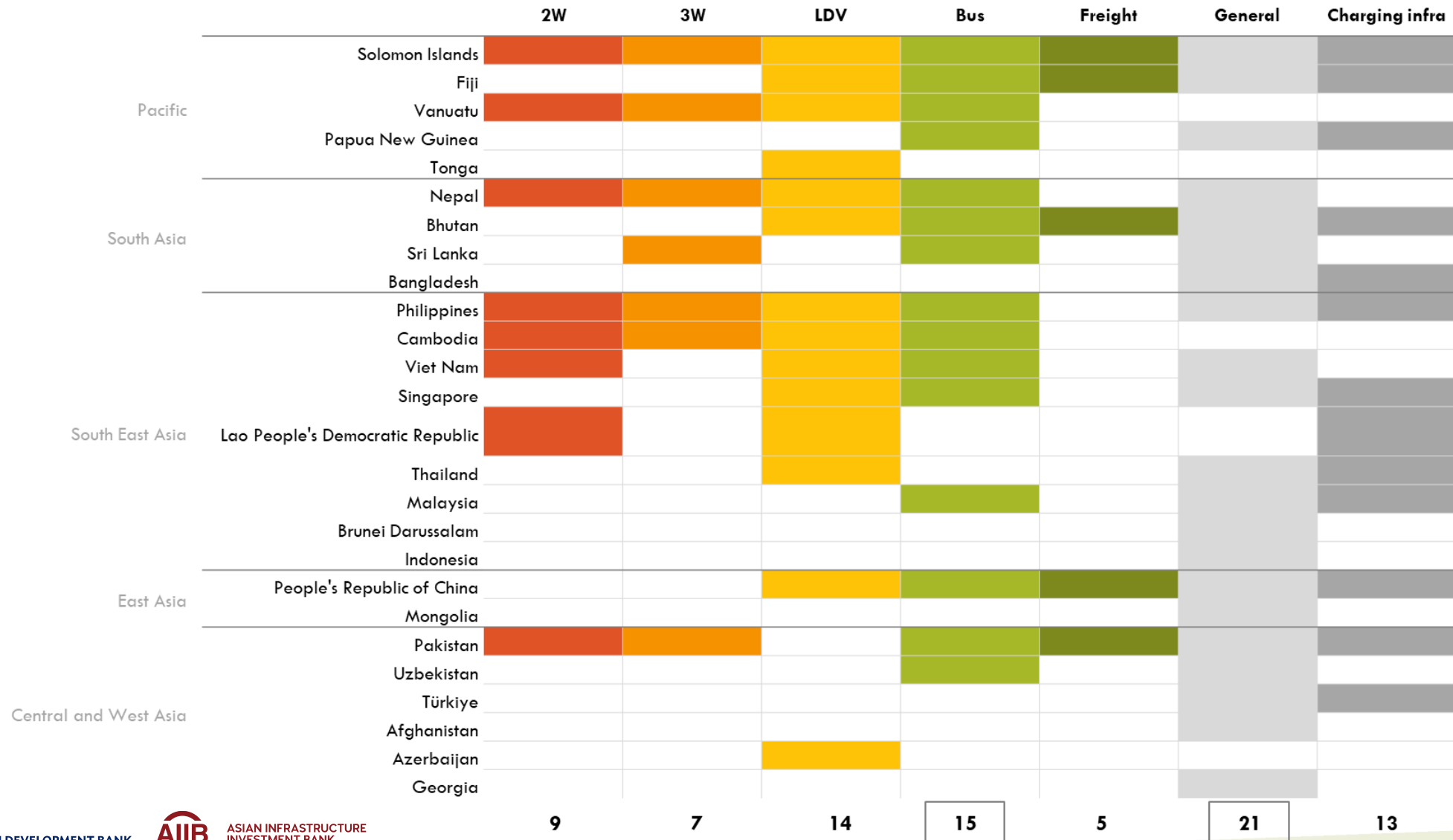
Policy Measures in the ATO Policy Database



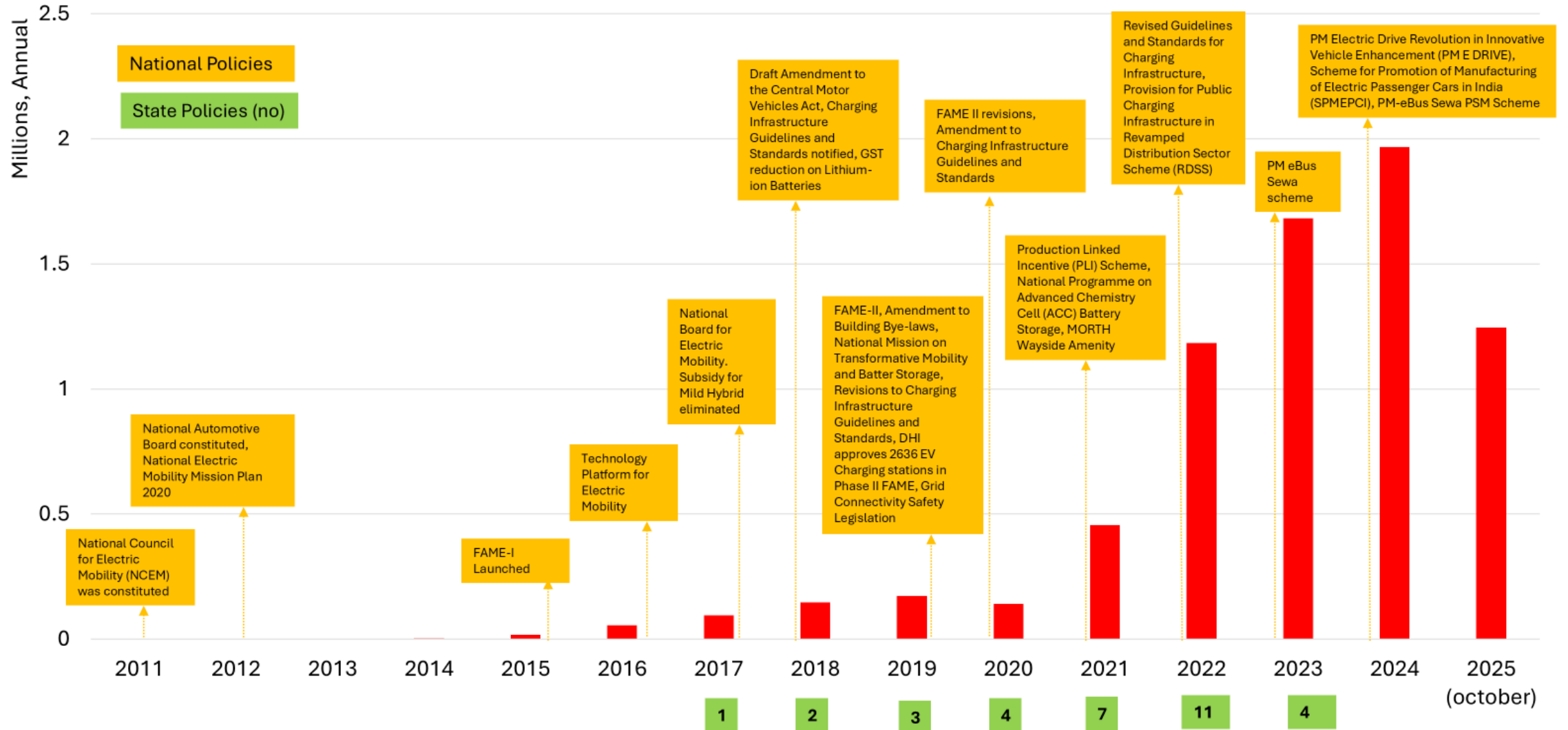
E-mobility Elements Mentioned in ADB Country Partnership Strategies



E-mobility Targets



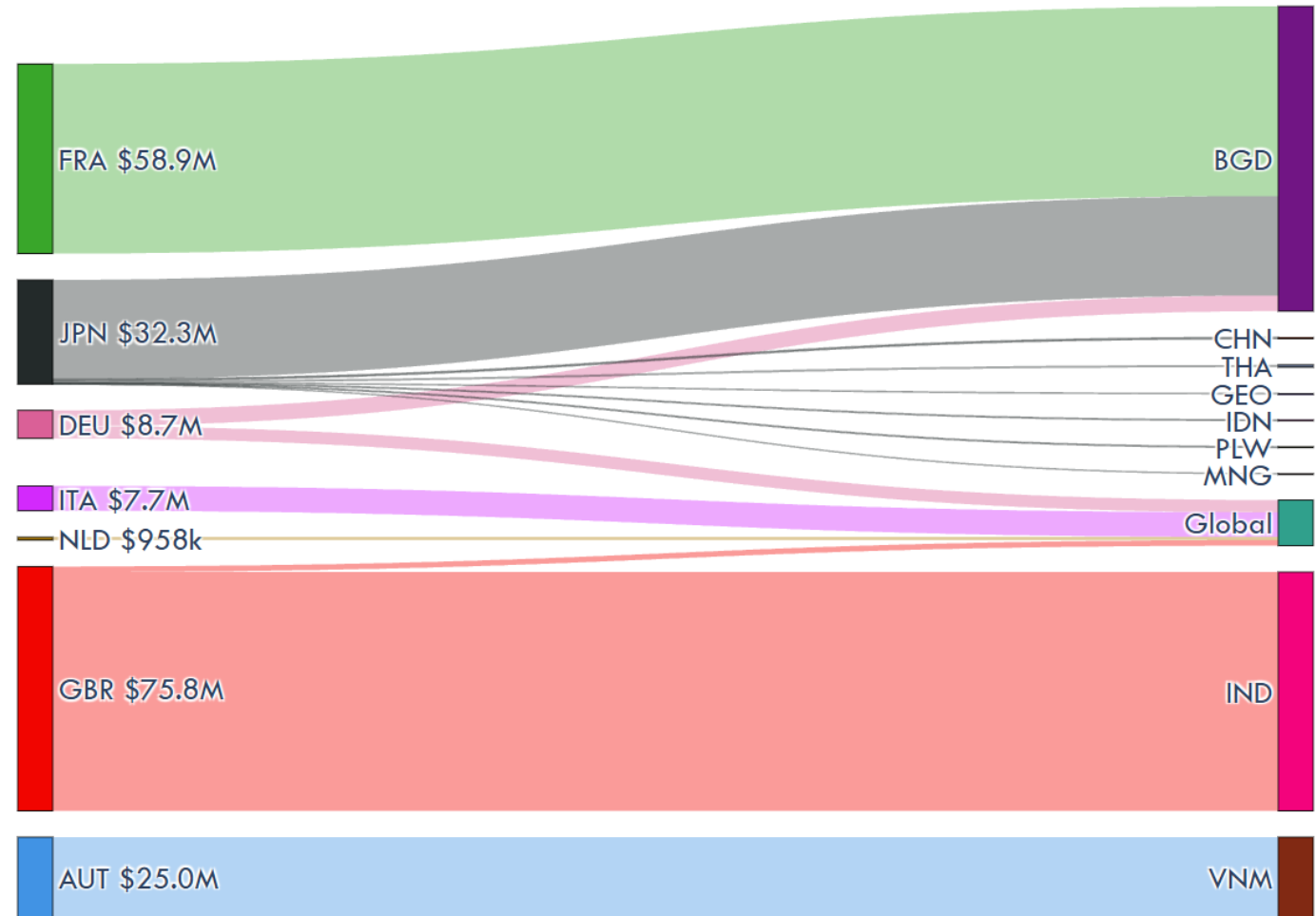
India EV Policy Timeline



International Financial Support to E-mobility

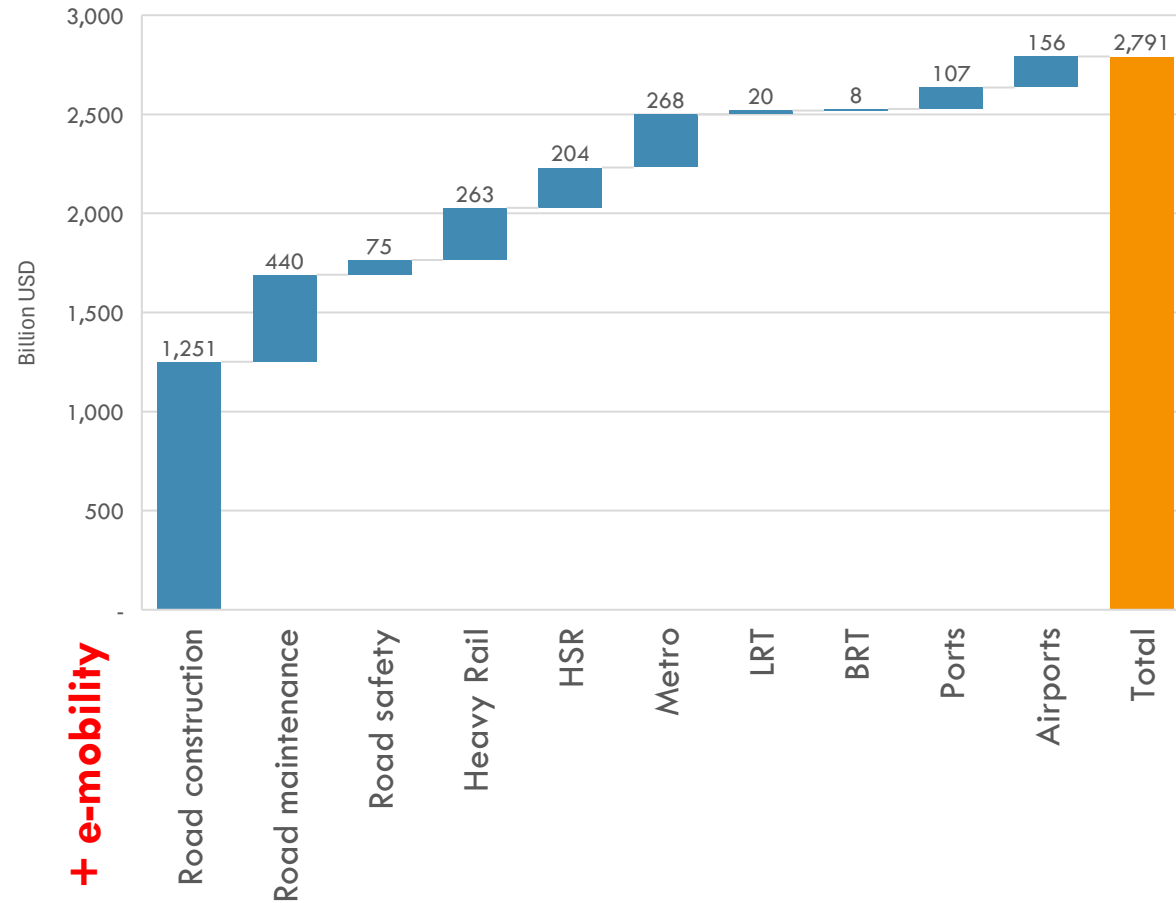
Officially reported financial support provided under Article 9 of the Paris Agreement

- 209 million USD in e-mobility related funding in Asia-Pacific
- 2% of transport related funding (11.2 billion USD)



Based on (UNFCCC, BTR-Support 2021-2022)

What would be needed?



Needed investments to realize e-mobility transition... ?

- Policies are converging
- Technology is maturing
- Costs are declining
- Finance is lagging
- Supply chains slowly transitioning

asiantransportobservatory.org

“ATO translates data into insights, policies, and investments”

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