



# A Closer Look: Freight Dynamics in Asian Sub-regions

Unpacking Infrastructure, Activity, and  
Policy variations

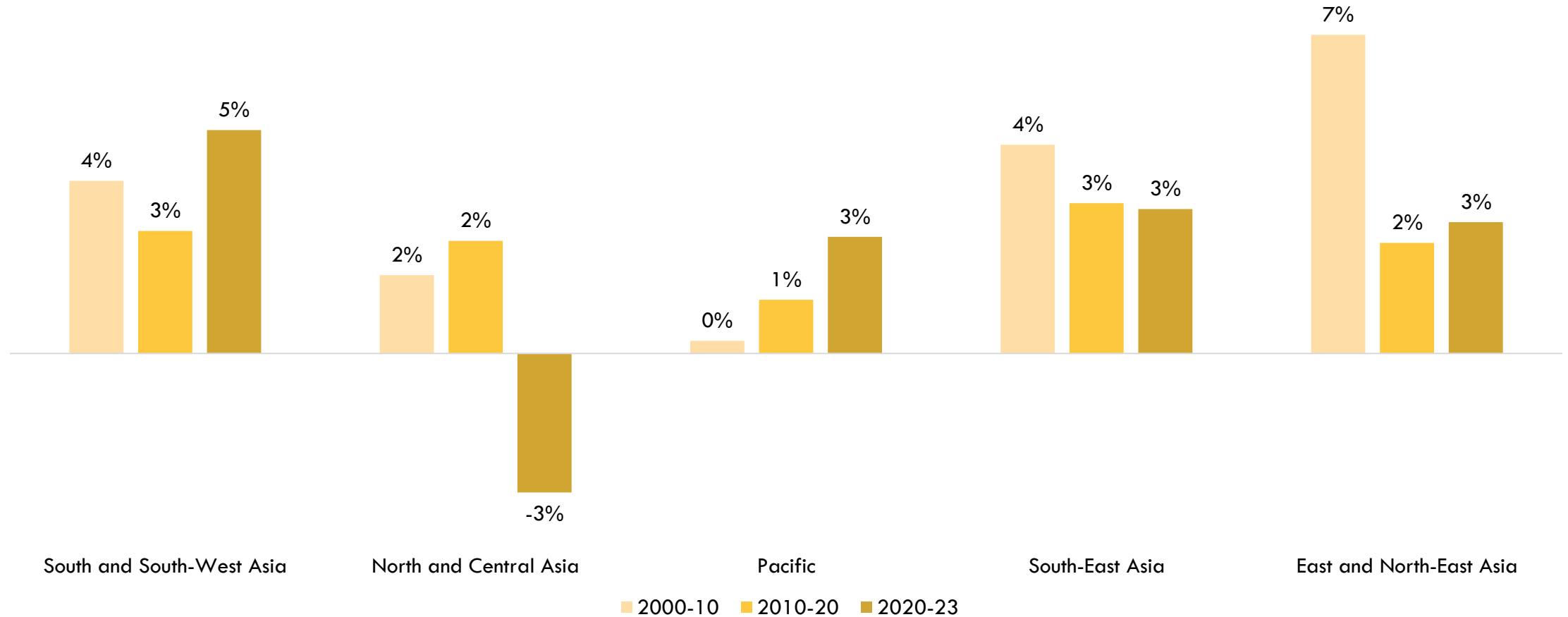
**Adwait Limaye**  
Asian Transport Outlook

26 Sept. 2024

# Increasing domestic material consumption

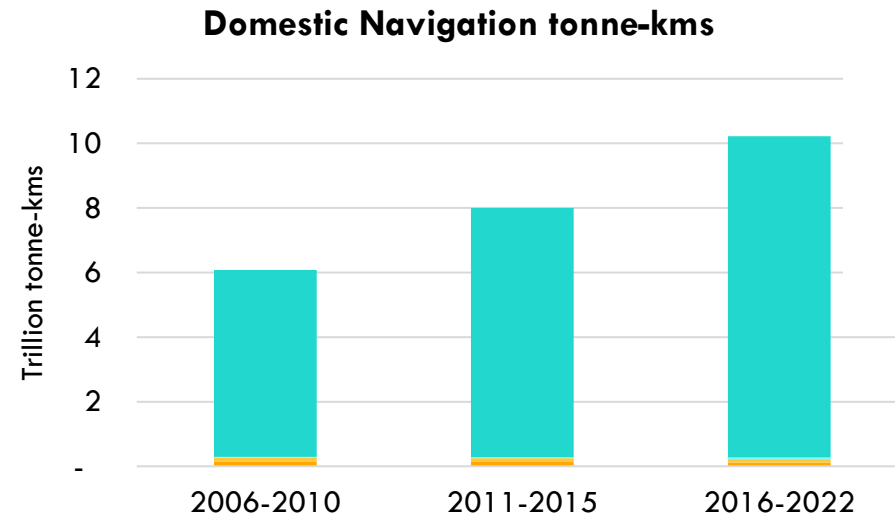
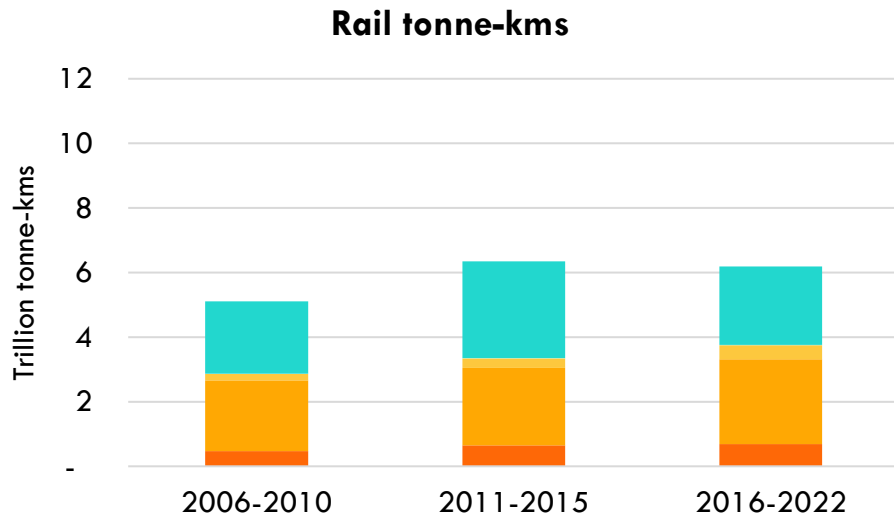
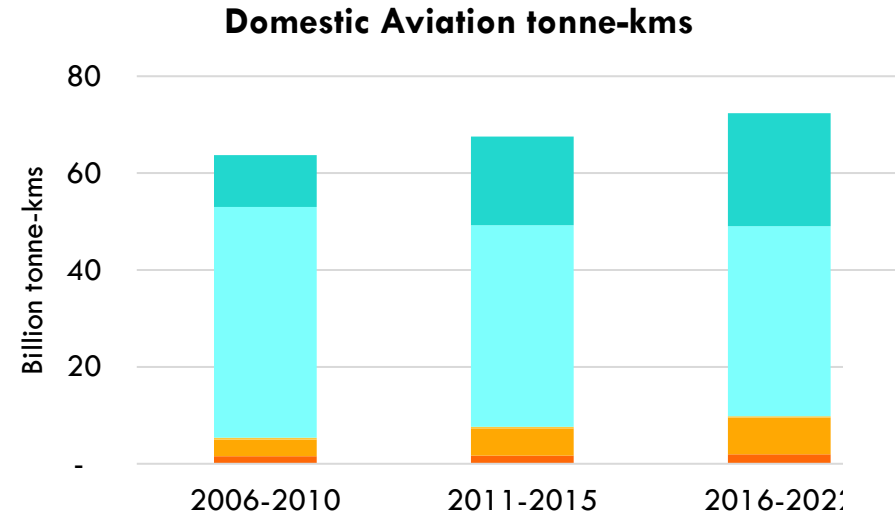
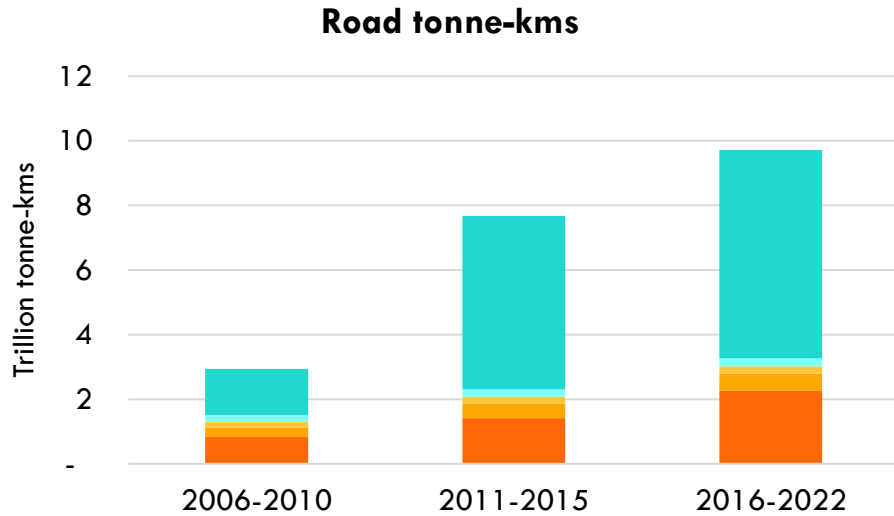
annual expansion at 4%

Domestic material consumption (Average annual growth rate)



# Sustained growth in Freight activity

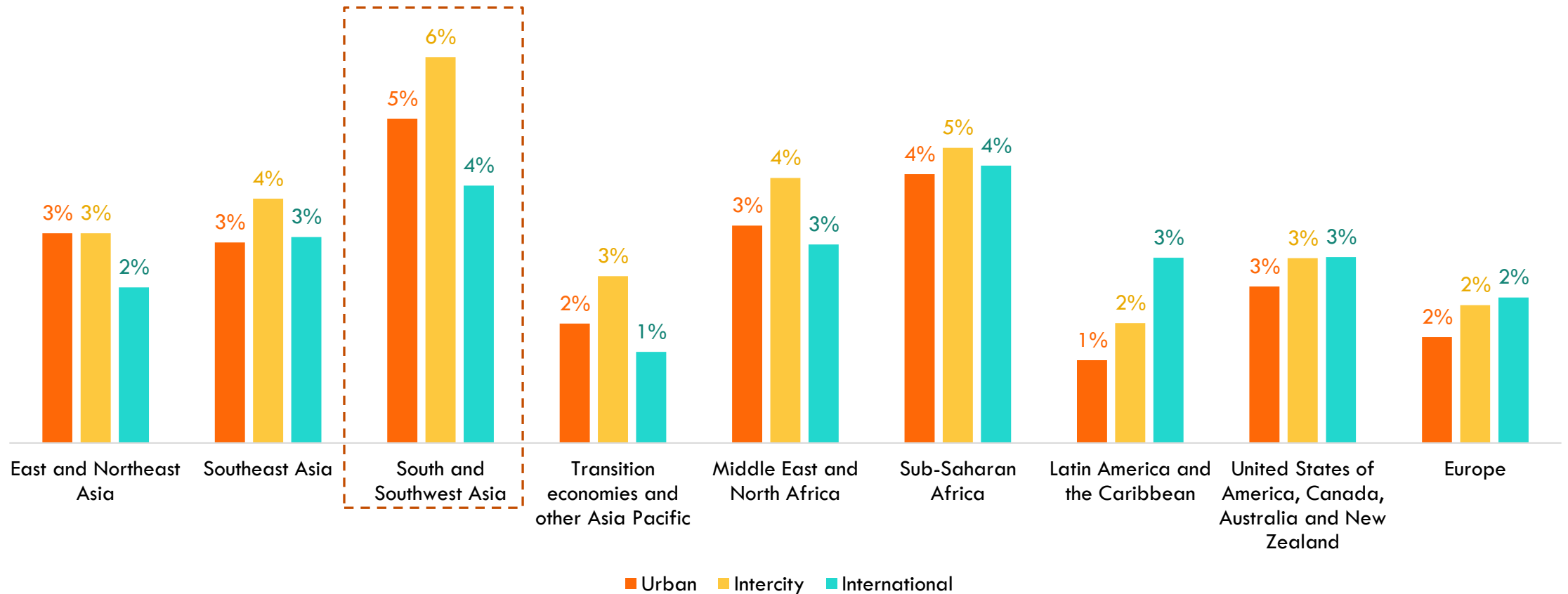
annual expansion at 5%



- East and North-East Asia
- South-East Asia
- Pacific
- North and Central Asia
- South and South-West Asia

# Freight demand growth estimates by Sub-regions vary

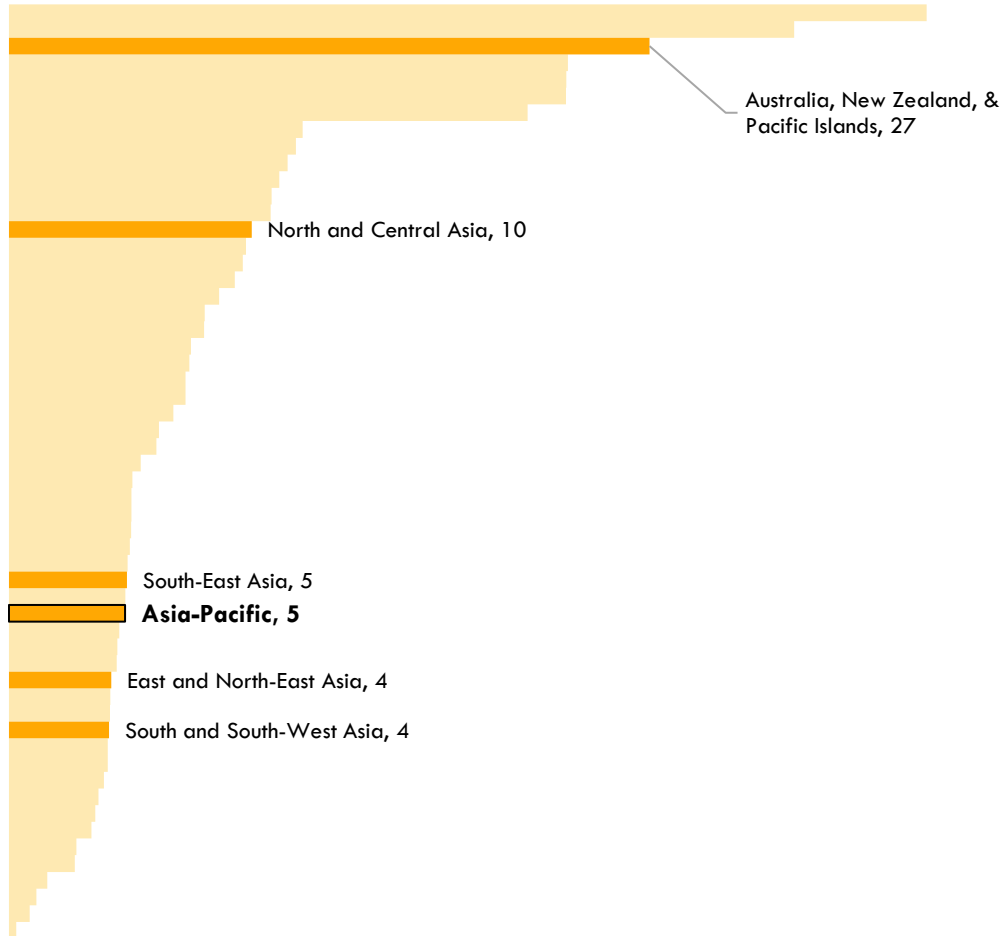
Freight demand growth estimates (average annual growth rate) (2020-2050)



# Transport Infrastructure gap

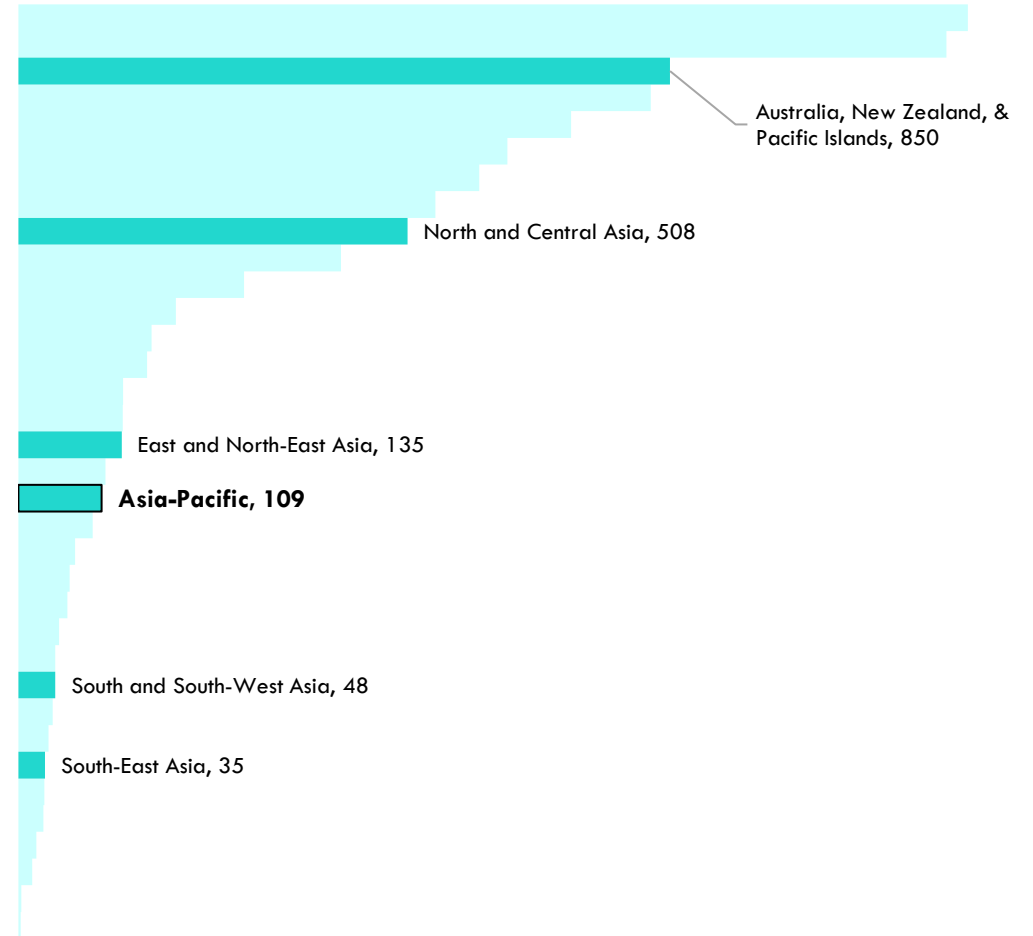
## Road availability

Kilometers per thousand capita, 2022



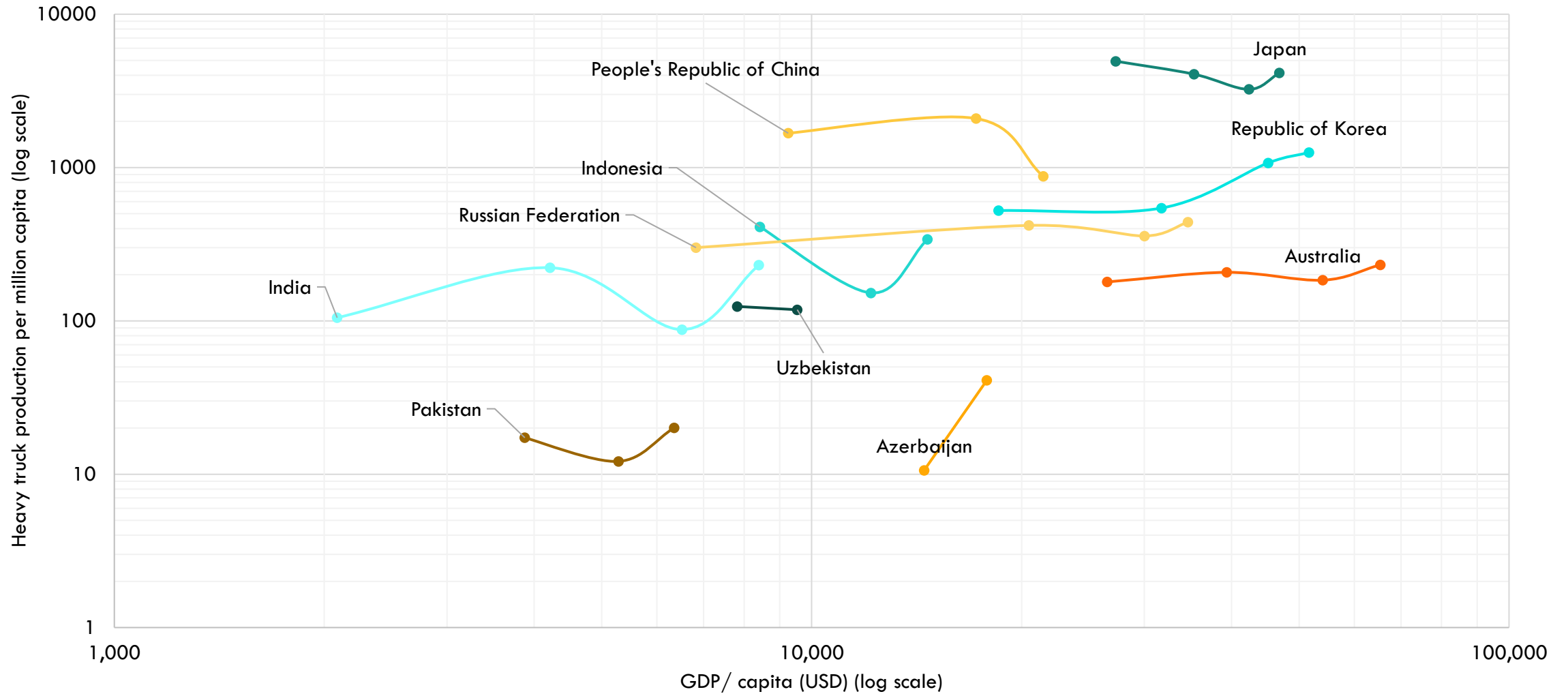
## Heavy rail (including HSR) availability

Kilometers per million capita, 2021



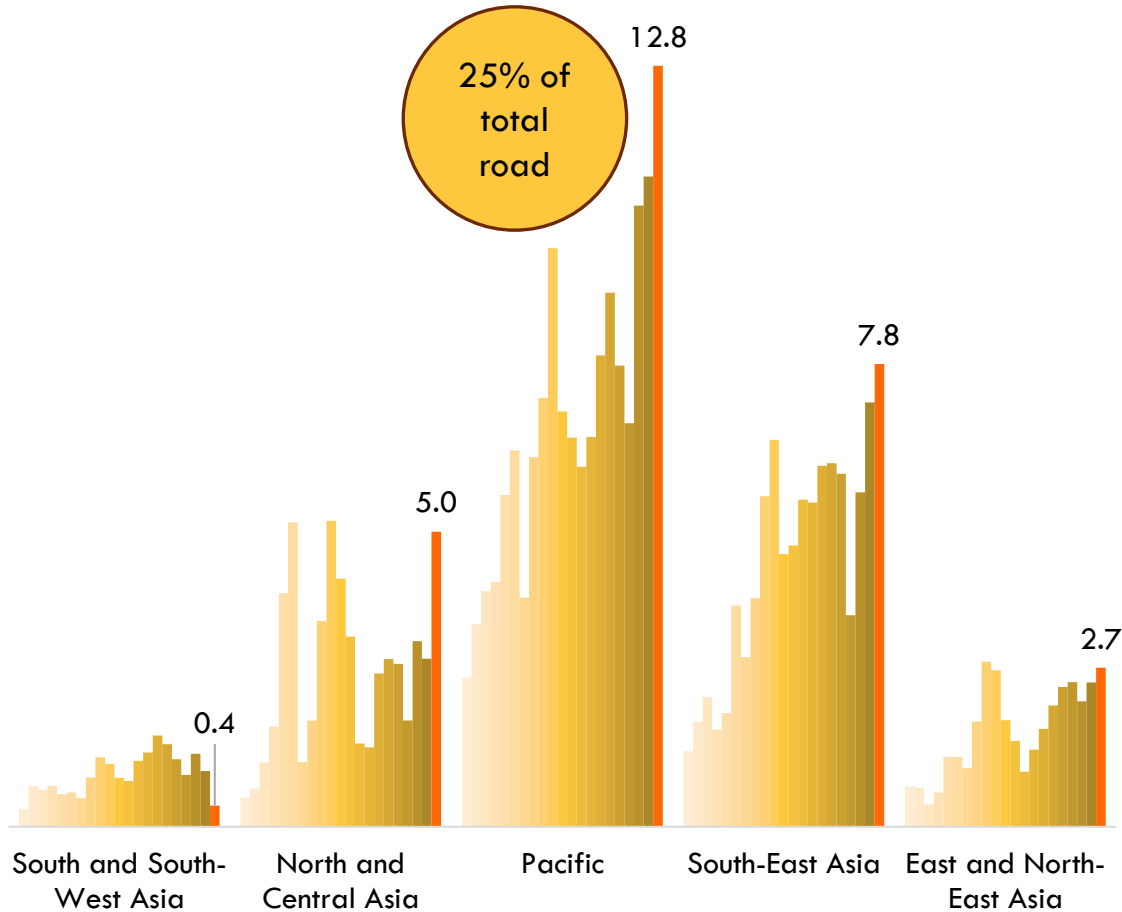
# Heavy truck production uptake

2000 - 2022

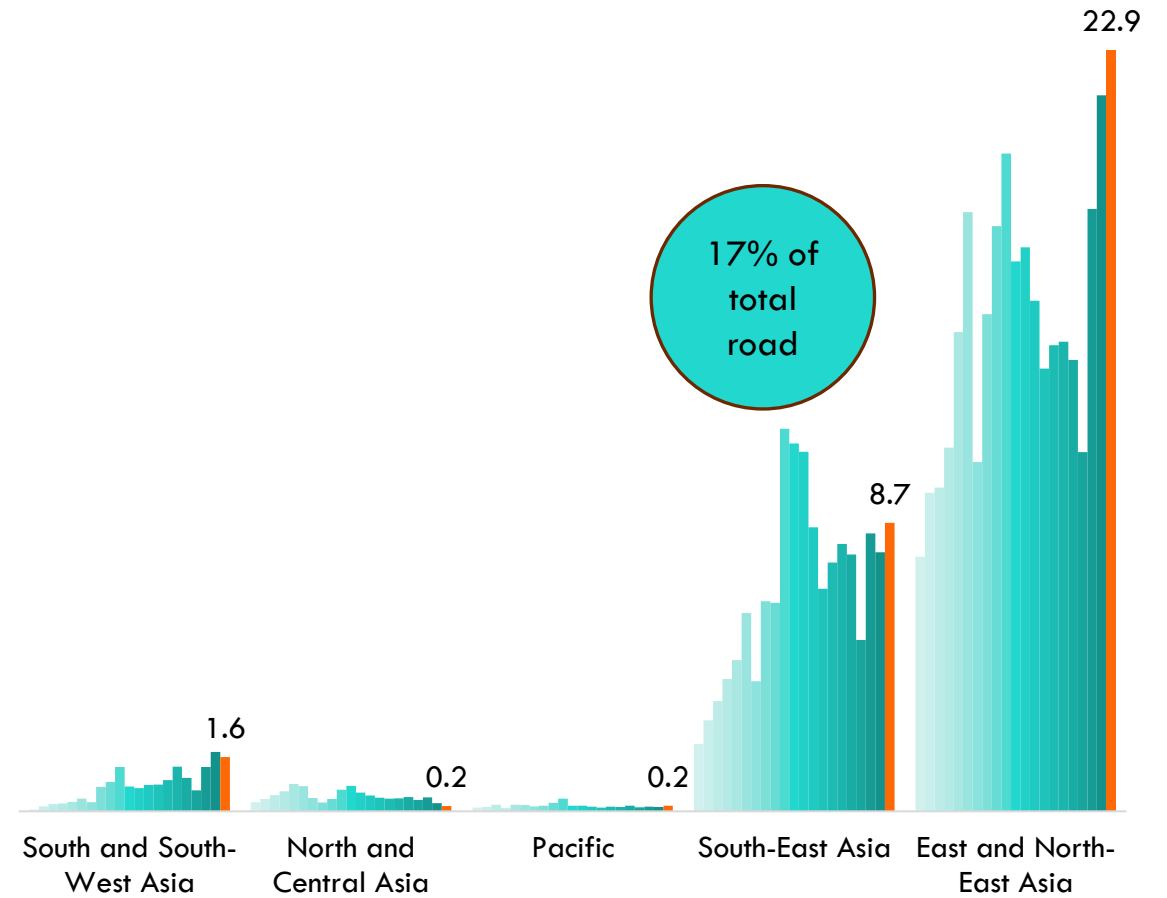


# Increasing trade of freight vehicles (in value terms)

Import of goods vehicles (in billion USD) (2003 – 2023)

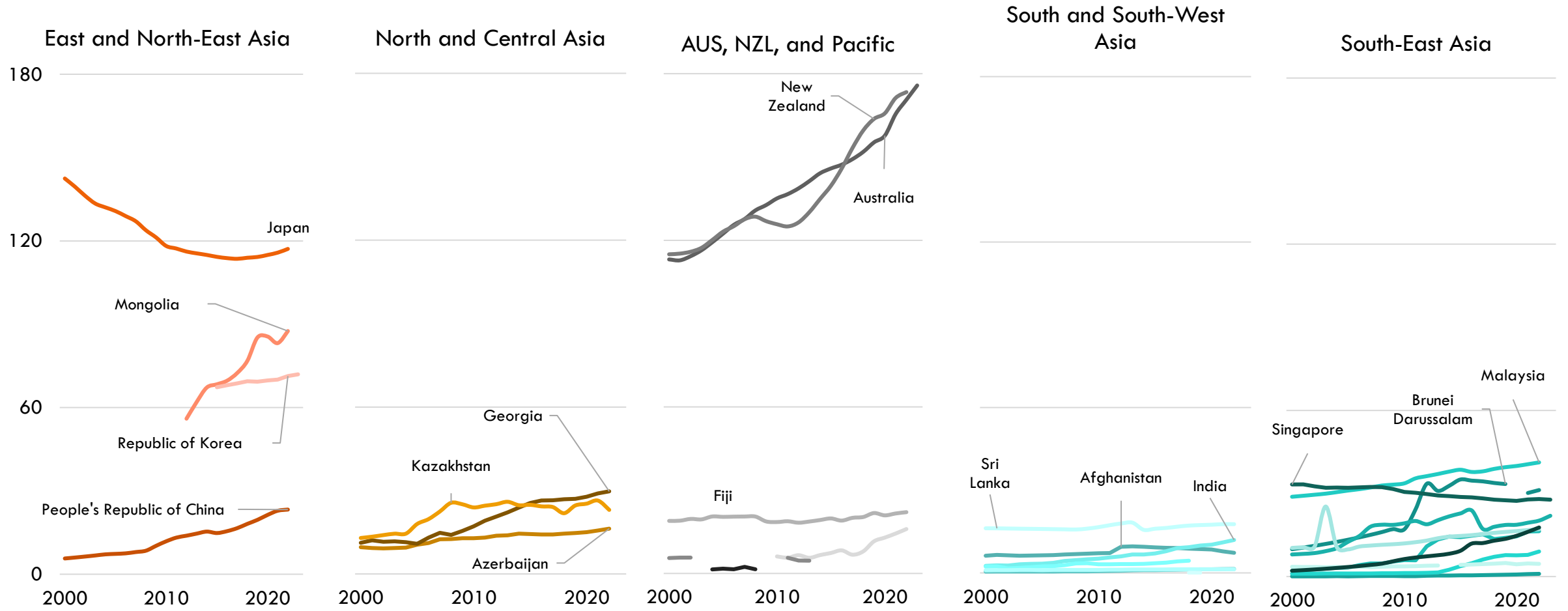


Export of goods vehicles (in billion USD) (2003 – 2023)

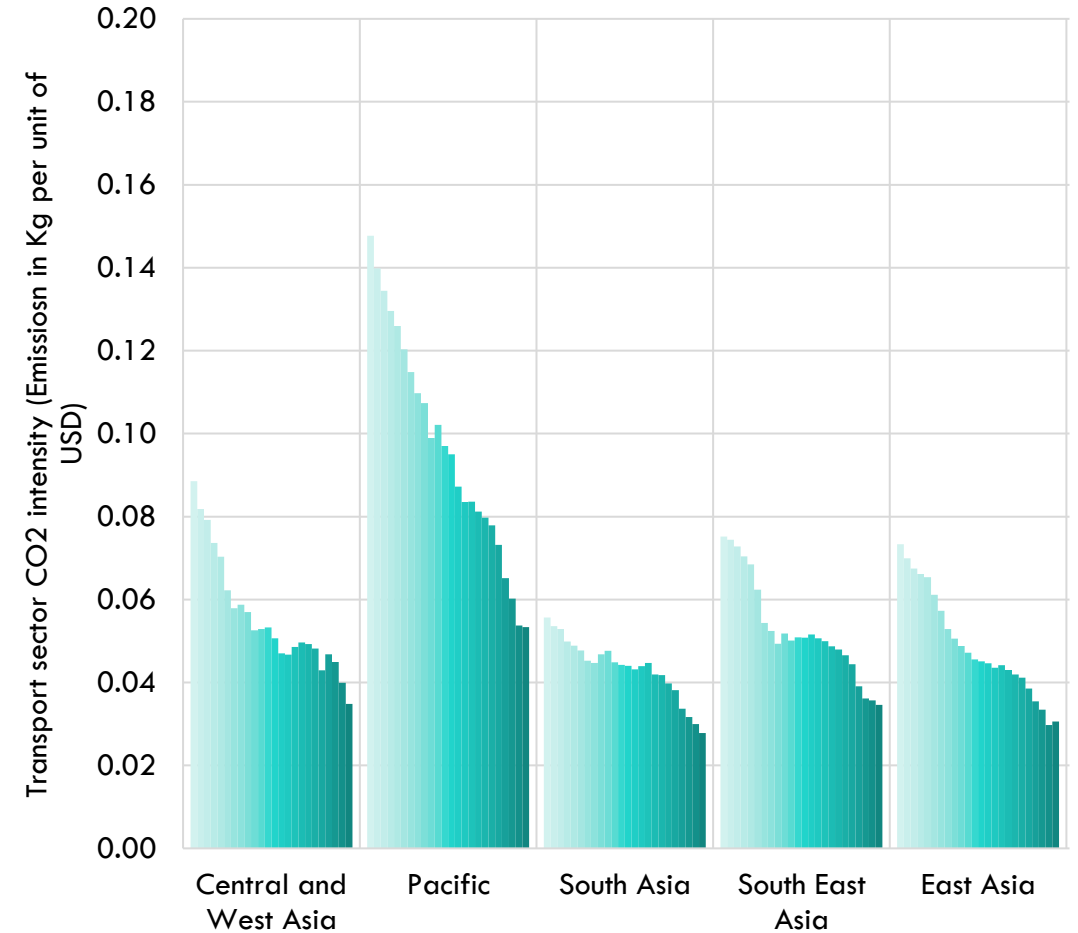
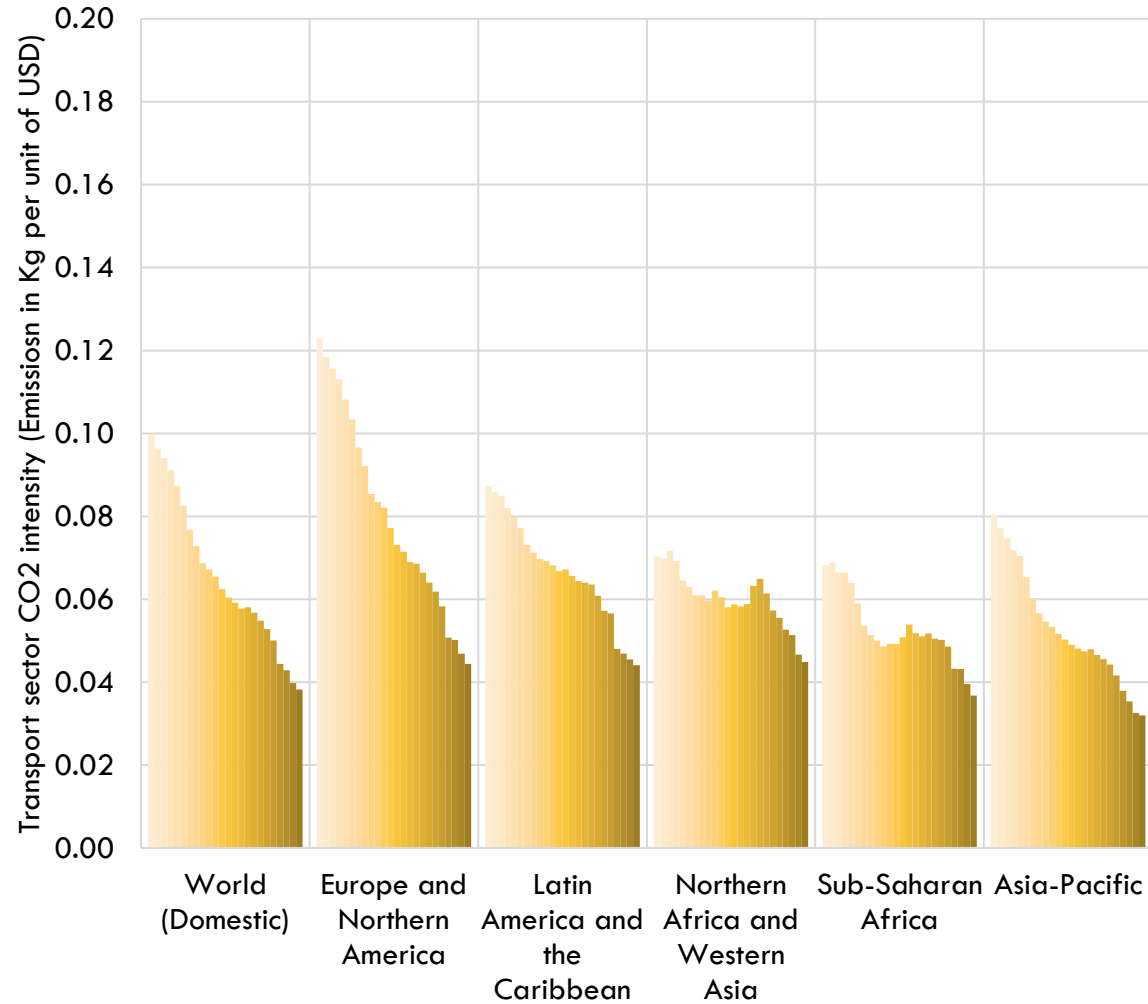


# Freight vehicle motorization diversity

Freight vehicle motorization (number of vehicles per 1000 population)

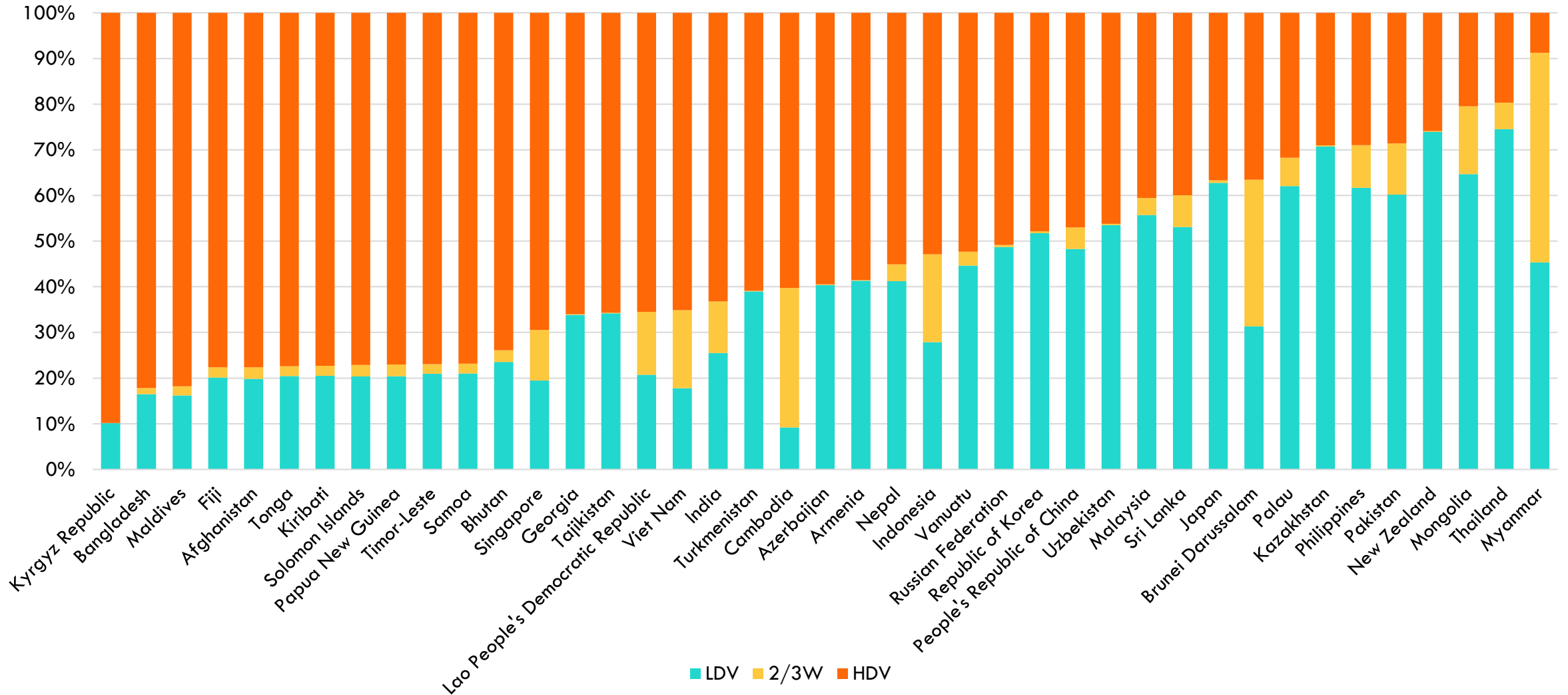


# Improving Carbon intensity of the transport sector

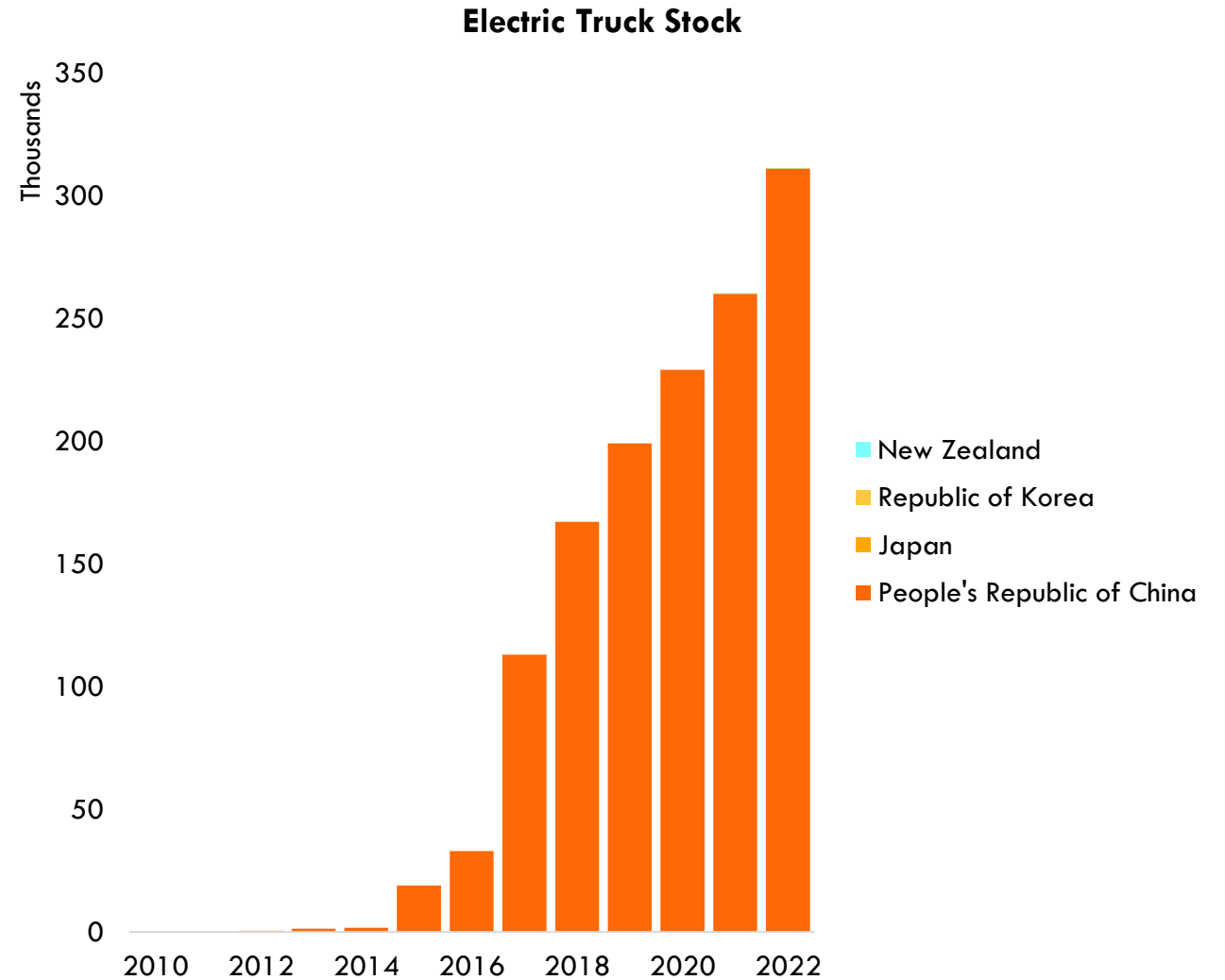
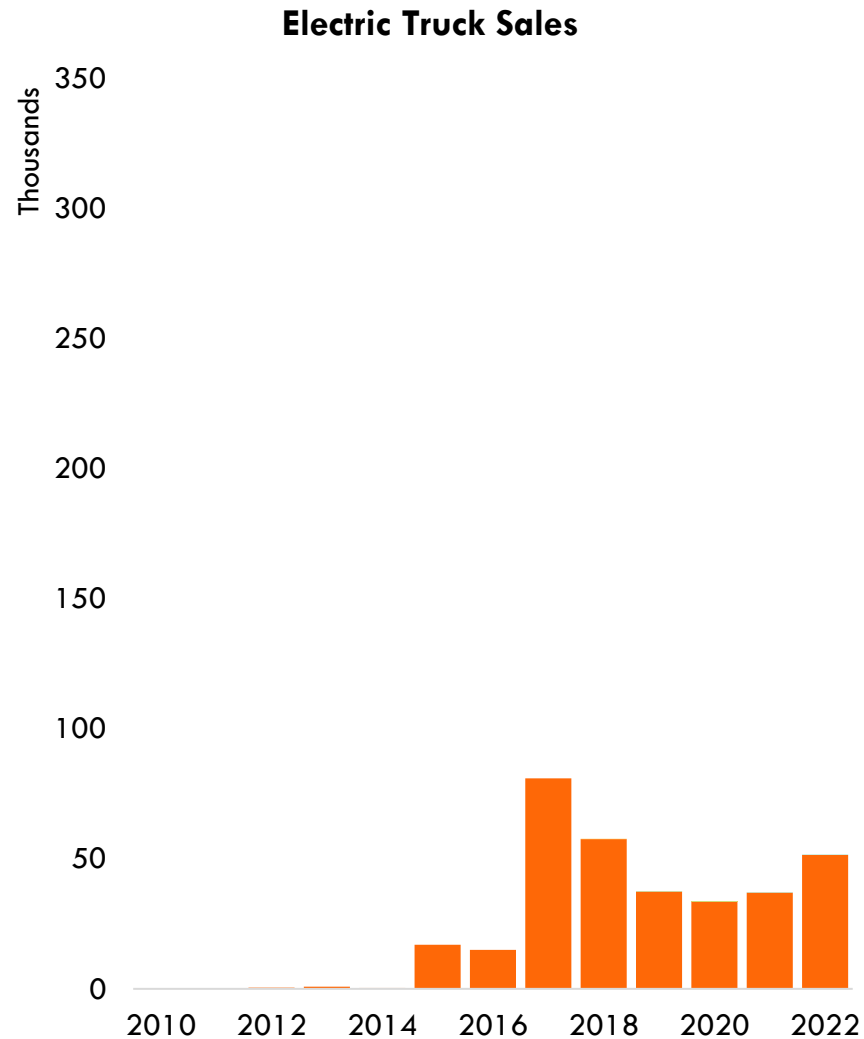


# Share of Freight in Road Transport Sector GHG Emissions

Share of vehicles in road transport GHG



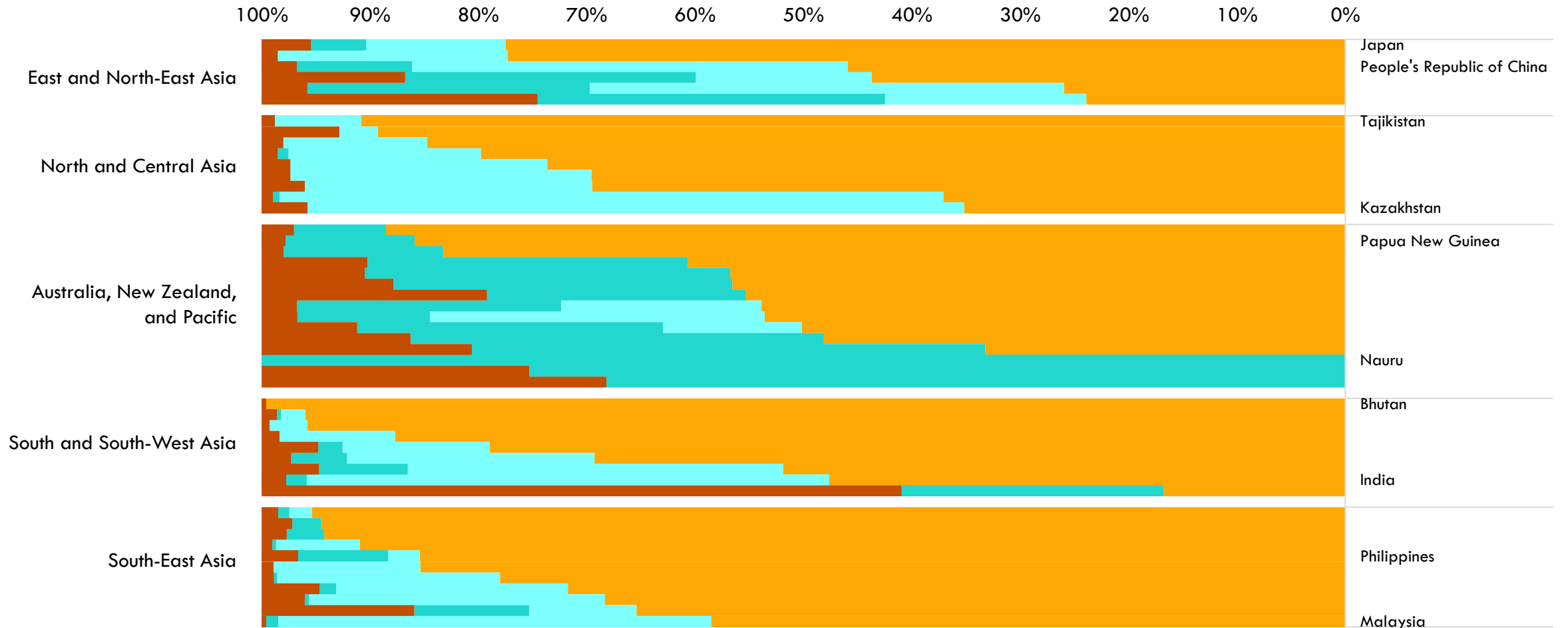
# Share of EVs in freight fleet



# Sensitivity to hazards vary

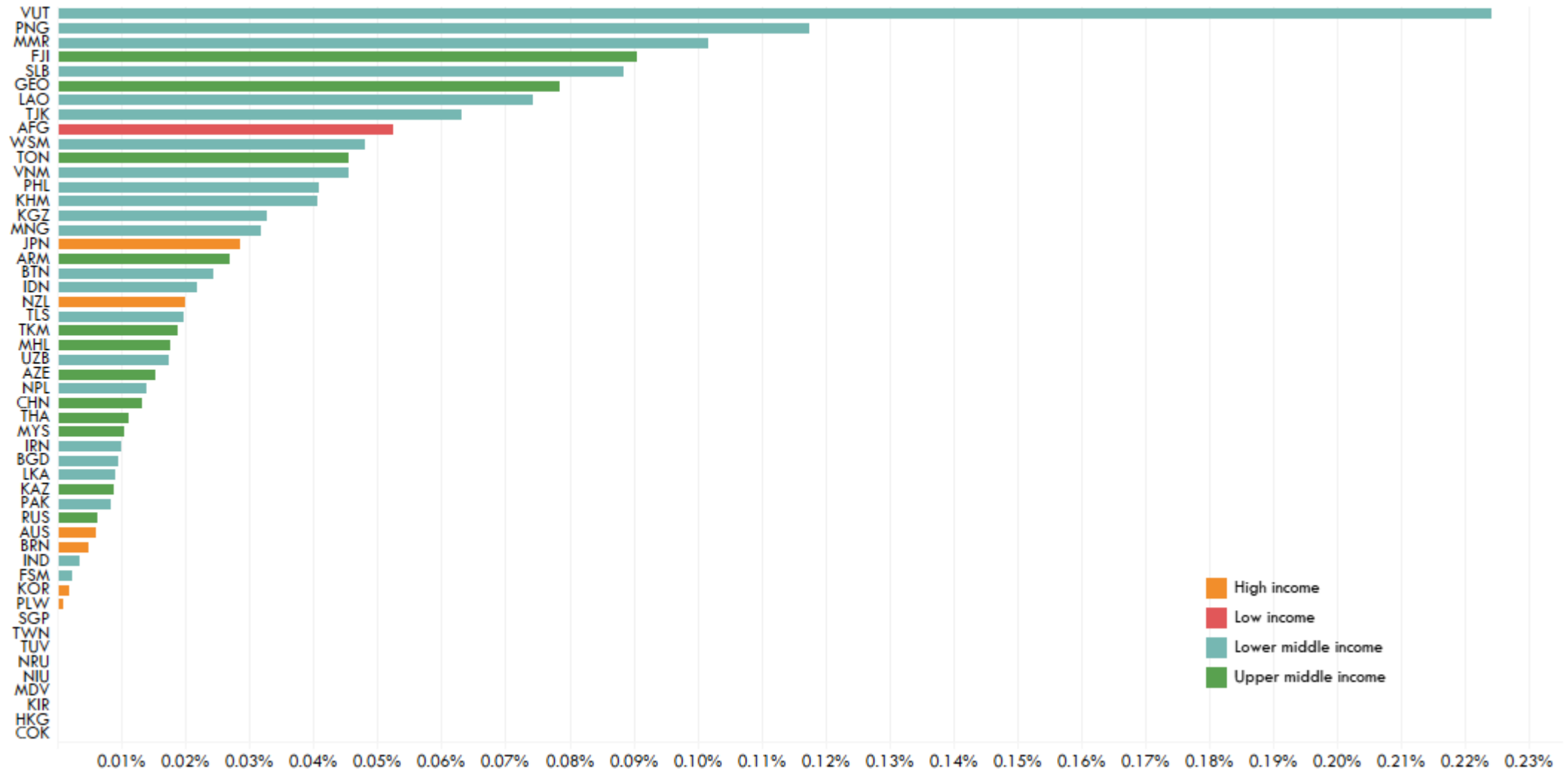
Annual average losses to transport infrastructure by mode

Road Rail Ports Airports

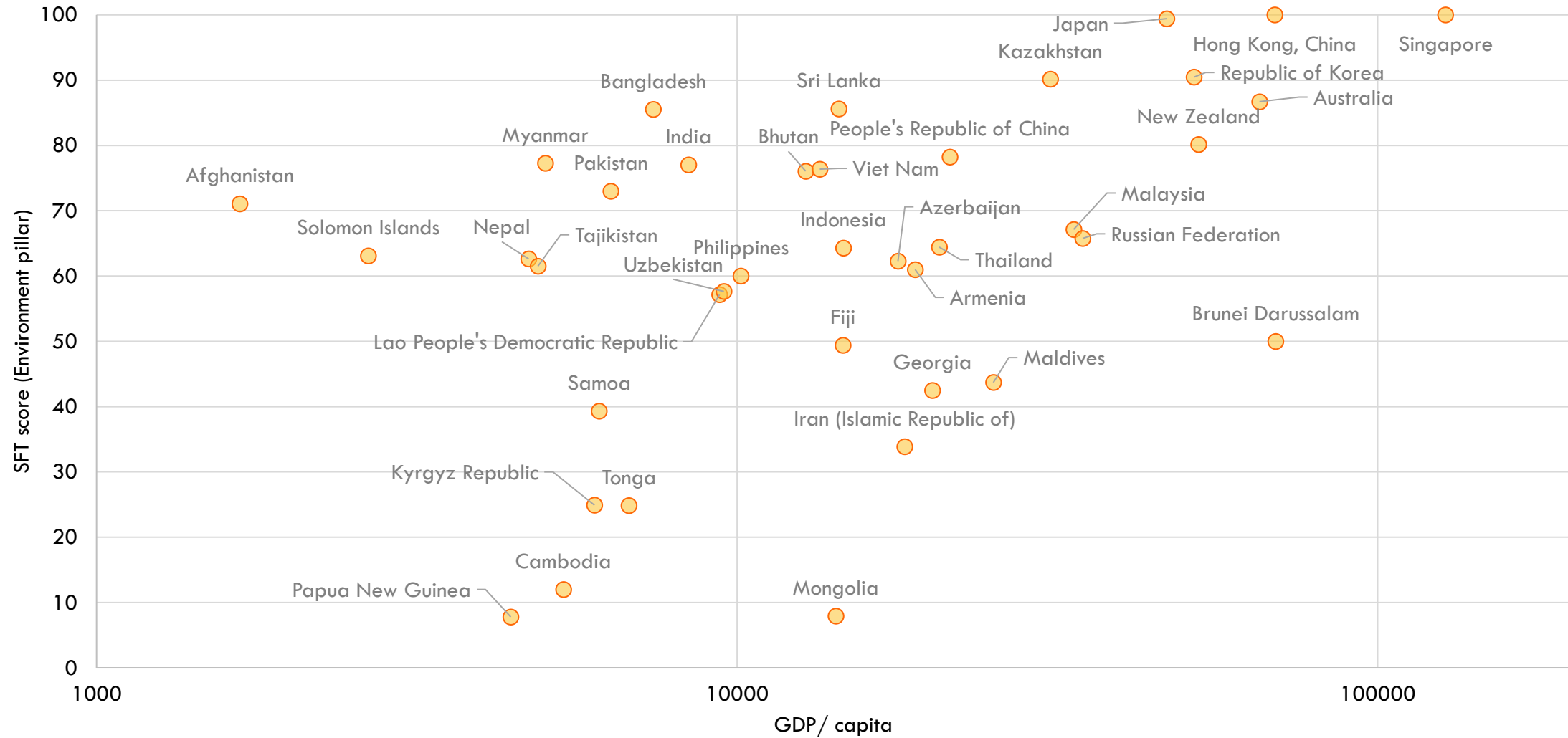


# Vulnerability to the Costs of Damages

Multi-Hazard Expected Annual Damages as % of GDP  
(2019)

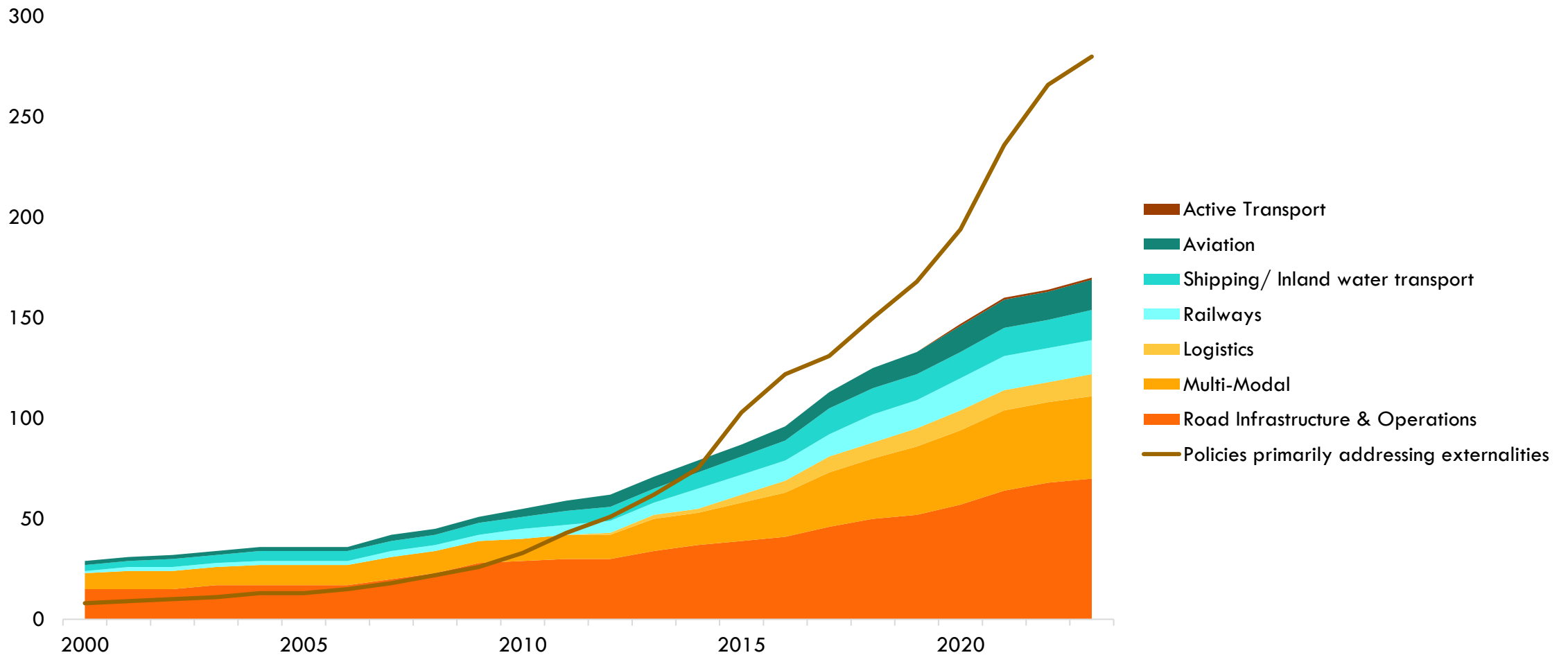


# Sustainable freight transport index score



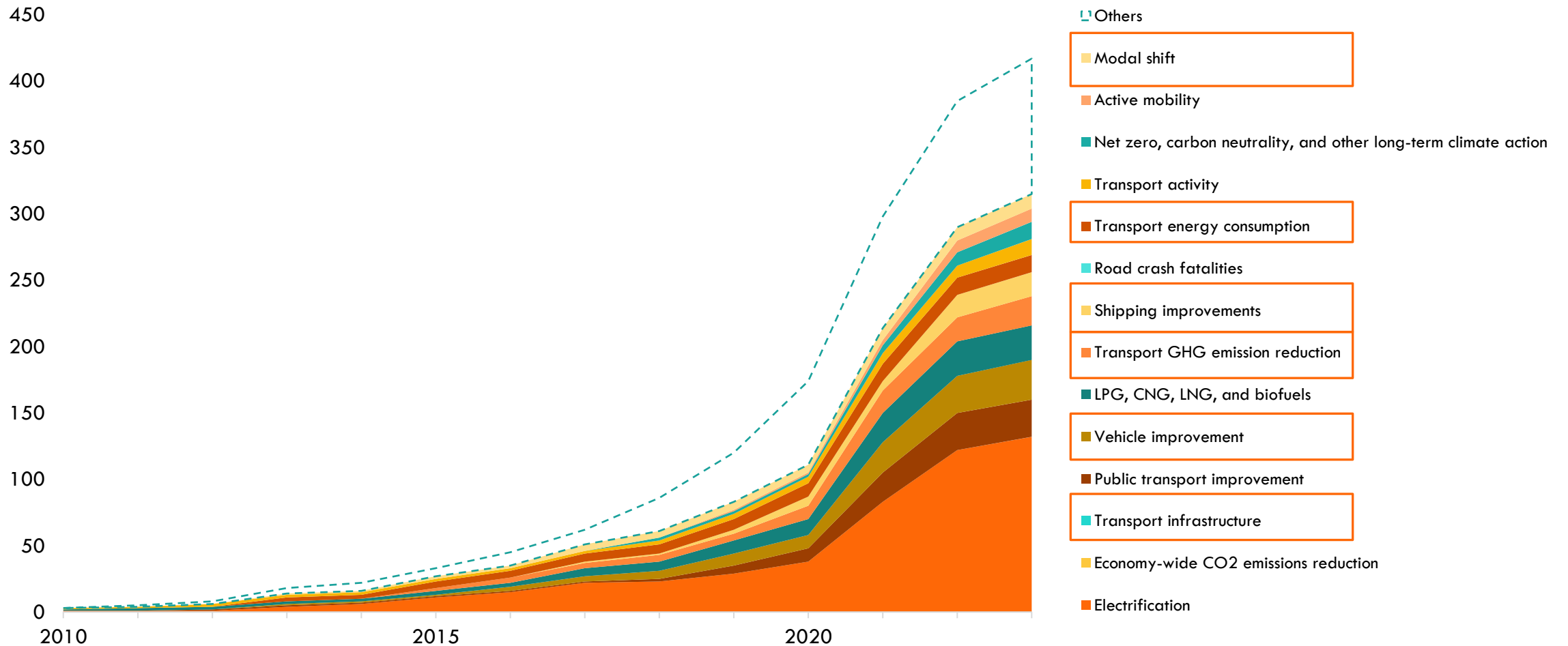
# Policy ambition and focus as key driver of the shift

Cumulative number of Transport policy documents by theme



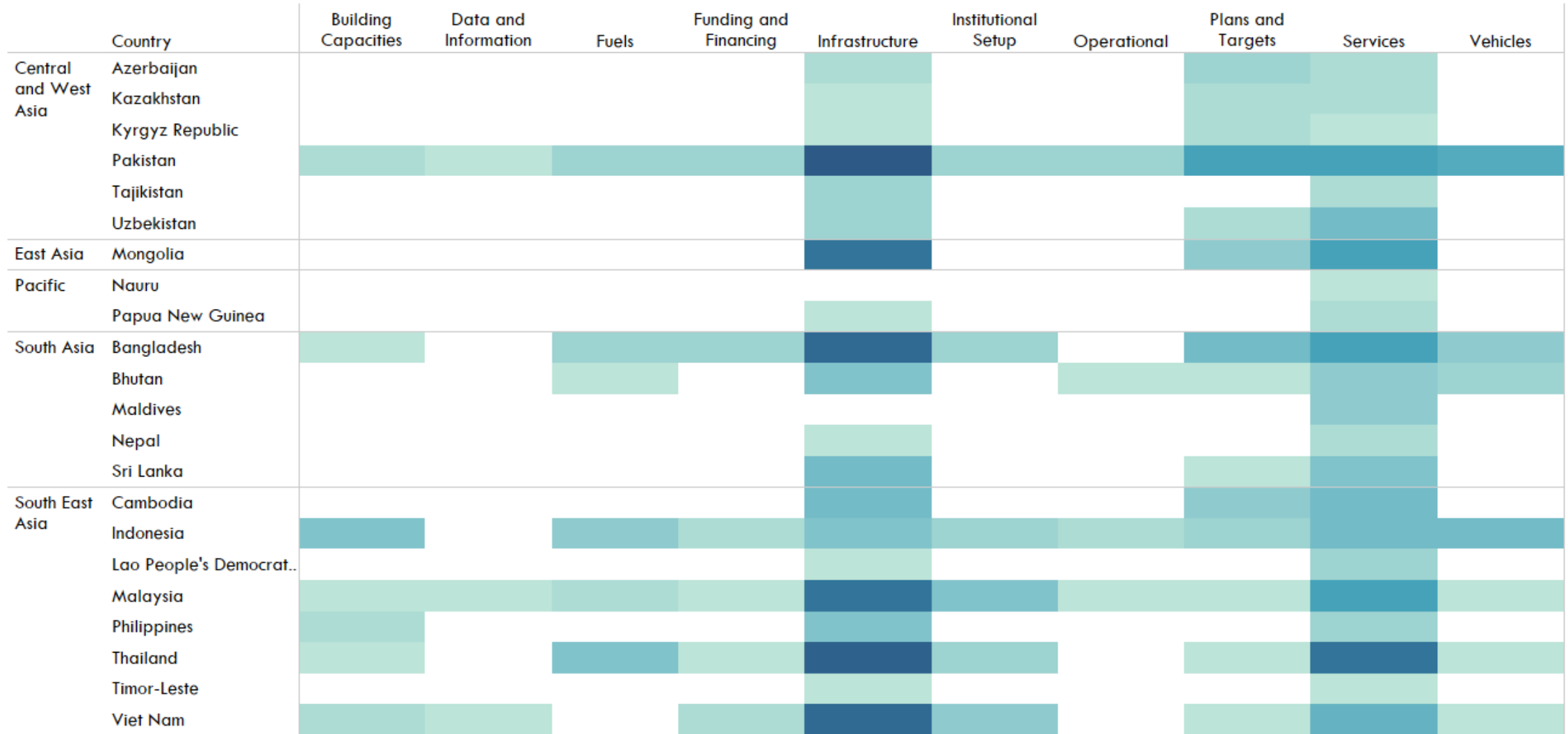
# Policy ambition and focus as key driver of the shift

Cumulative transport-related targets



# Freight policy measures by country have a differing focus

Freight Policy Measures



# Policy measures and targets - themes

## National access and connectivity improvement

Bangladesh targets to upgrade all village roads to asphalt standard by 2041 (Perspective Plan of Bangladesh 2021-2041)

Viet Nam targets to upgrade all district and commune roads to technical grade by 2030 (Road network planning for 2021-2030, vision to 2050)

Indonesia will build 21 new airports and 36 new ports by 2024 (National Medium Term Development Plan 2020-2024)

Lao PDR targets building and upgrading up to 2,800 km of land transport infrastructure connecting to bordering countries by 2025

## Freight systems improvement

Indonesia targets to improve logistics performance index to reach 3.5 by 2025 (Development of National Logistics System Framework)

Bhutan will build dry ports and supporting facilities and railway links (Economic Development Policy 2016)

Pakistan aims to improve the efficiency of last-mile services by partnering with stakeholders (National Freight and Logistics Policy)

Thailand will implement intelligent logistics management and e-commerce systems (The Thirteenth National Economic and Social Development Plan 2023-2027)

## Climate change mitigation and adaptation in transport measures with focus on freight

Indonesia will ban the import of second-hand trucks, trailers, and other key truck parts older than five years (Mitigation Action Outline on Truck Fleet Modernization Scheme in Indonesia)

Viet Nam aims strongly develop multimodal transport and logistics services in freight transport (Transport Strategy 2020)

Pakistan aims to improve road asset management, through private sector development, in line with best industry practices and contemporary trends. (National Freight and Logistics Policy)

# Policy measures and targets - themes

## Urban freight systems improvement

Pakistan will implement night operations for cargo movement and develop dedicated freight corridors to limit urban pass-through (National Freight and Logistics Policy, National Transport Policy of Pakistan 2018)

Malaysia will operationalize a comprehensive city logistics model by developing freight consolidation centers (National Land Public Transport Master Plan )

Bhutan aspires to mainstream less intrusive and low impact city-level freight distribution (Low Emission Development Strategy (LEDS) - Surface Transport)

## Freight fleet electrification

Bangladesh intends to encourage the use of electric and hydrogen-powered vehicles to transport goods (Mujib Climate Prosperity Plan)

Bhutan mentions introduction of low emission freight trucks including EV trucks (Low Emission Development Strategy (LEDS) - Surface Transport)

Thailand talks about Promoting green businesses, efficient energy utilization, and greenhouse gas reduction, such as the use of electric vehicles. (Action Plan on Thailand Logistics Development 2023-2027)

## Mode shift

Sri Lanka's ambition is to switch back freight transport from road to rail (Updated Nationally Determined Contributions)

Bangladesh will utilize extensive inland waterways to transport freight and minimize logistics cost (Mujib Climate Prosperity Plan)

Malaysia will encourage KTMB to increase cargo transported with passenger trips (Low Carbon Mobility Blueprint 2021-2030)

# Context guided policy development

## Landlocked countries

Azerbaijan - form logistical centres in the regions of the country (Azerbaijan – 2020 Outlook for the future)

Mongolia - development of road transport through the East, West and Central Corridors connected to the Asian Highway Network by supporting trade and transport facilitation and economic corridor development initiatives (State Policy on Automobile Sector)

Nepal - Minimize empty-running of trucks and improve operational efficiency of truck transport (National Sustainable Transport Strategy (NSTS) for Nepal (2015-2040))

## SIDS

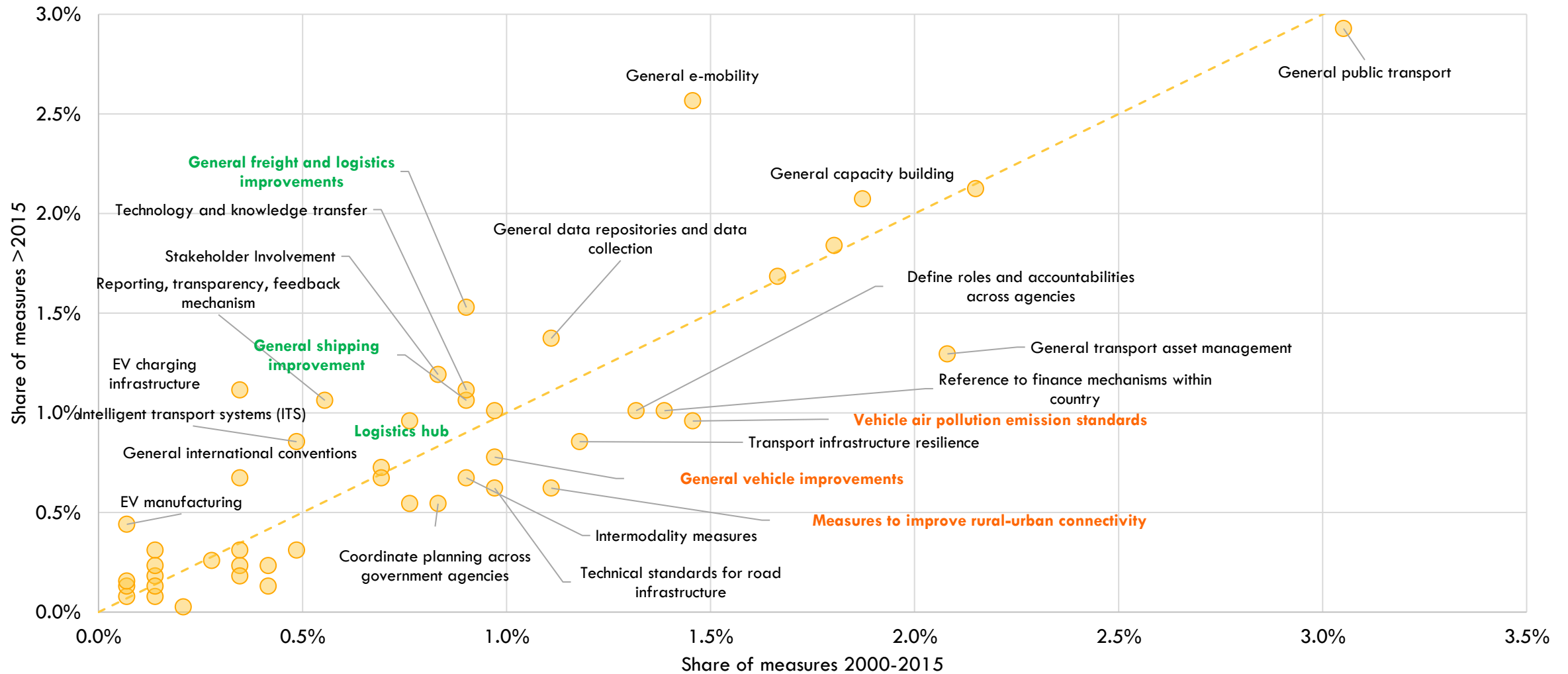
Maldives - Establish ferry links for freight logistics for tourist resorts. (Low Carbon Strategy for Transport Sector)

Papua New Guinea - PNG should invest in trade policy measures for environmental purposes that do not possess arbitrary or unjustifiable discrimination or a disguised restriction on international trade. National Strategy for Responsible Sustainable Development)

Nauru - The marine transport sector improvements include: barges for loading/unloading cargo (Second National Communication - NRU)

# Transport policy evolution over time

Share of measures before and after the adoption of SDGs/Paris Agreement



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