

Asia-Pacific Aviation: Navigating Growth, Decarbonization, and Policy Shifts

AIIB Transport Knowledge Week

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Asian Transport Observatory

Strengthening the knowledge base of transport in Asia-Pacific

A leading platform that gathers and shares comprehensive datasets, generate unique policy insights, and delivers novel knowledge products rooted in groundbreaking analysis.

asiantransportobservatory.org



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

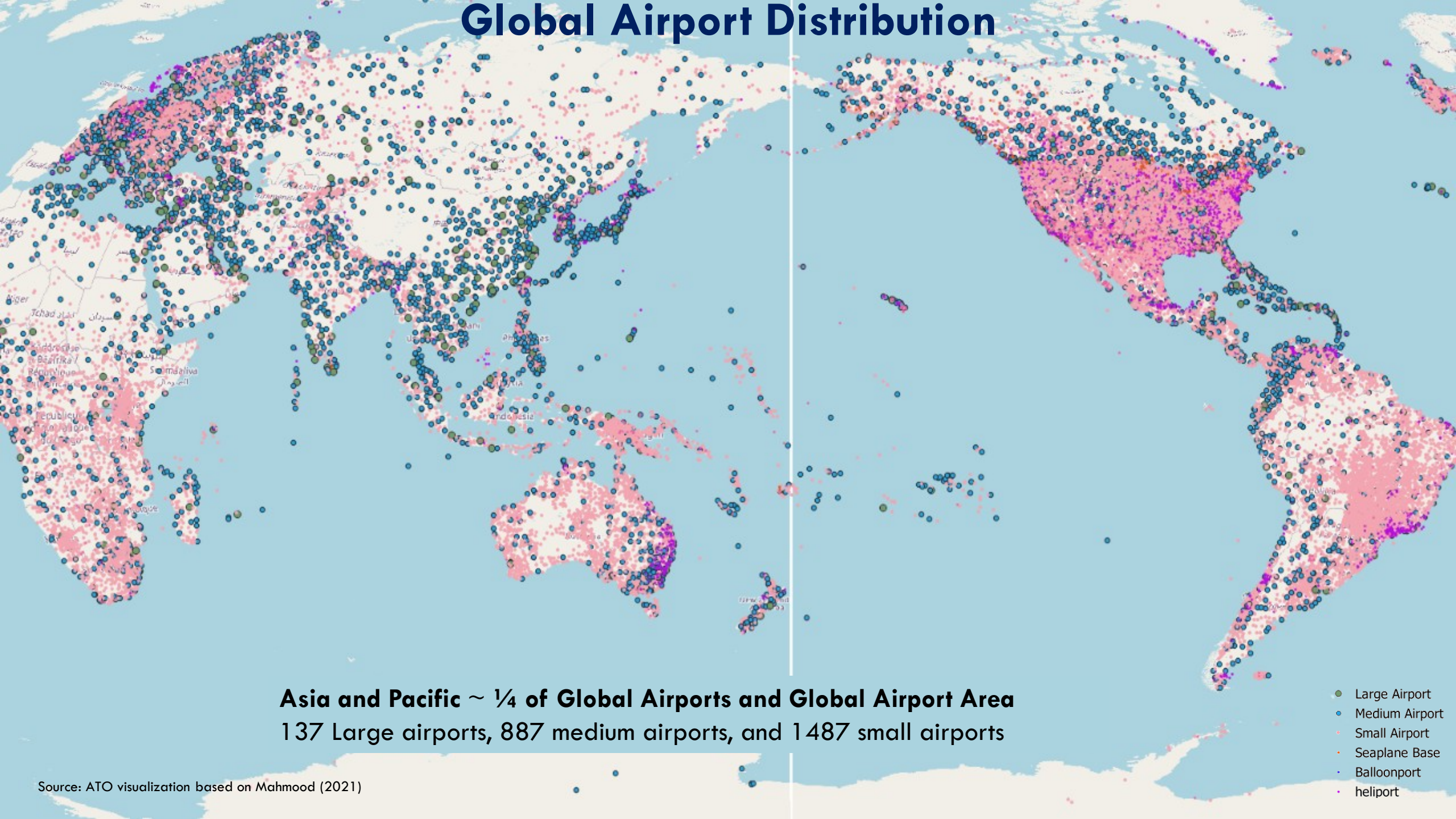
Explore more than 1,300 transport-related projects and benchmark their costs within subregions or income groups in Asia and the Pacific



ATO Analytical Outputs

Read about analysis made using ATO transport data and policy information

Global Airport Distribution

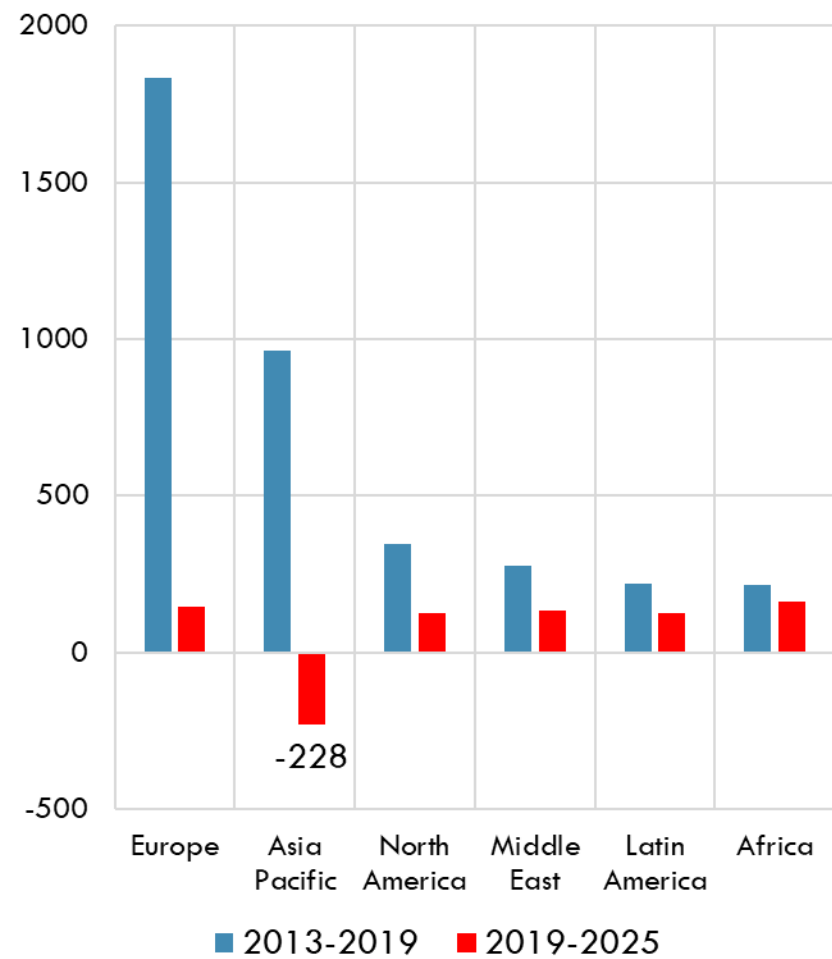


Asia and Pacific ~ 1/4 of Global Airports and Global Airport Area
137 Large airports, 887 medium airports, and 1487 small airports

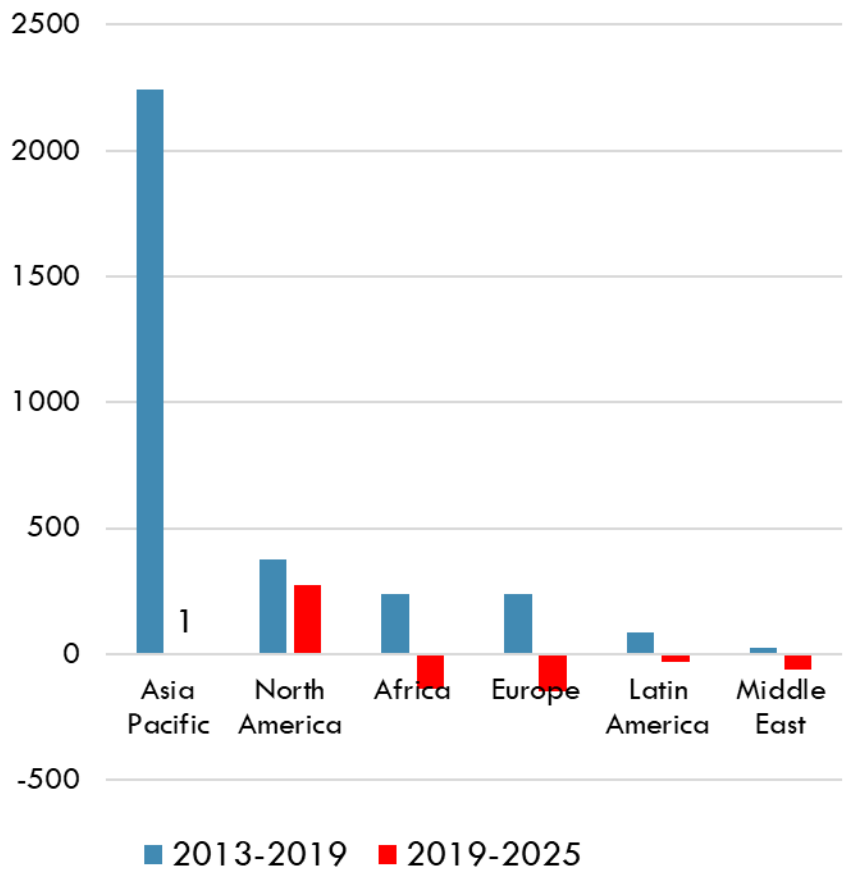
- Large Airport
- Medium Airport
- Small Airport
- Seaplane Base
- Balloonport
- heliport

Aviation connectivity has stagnated/reduced

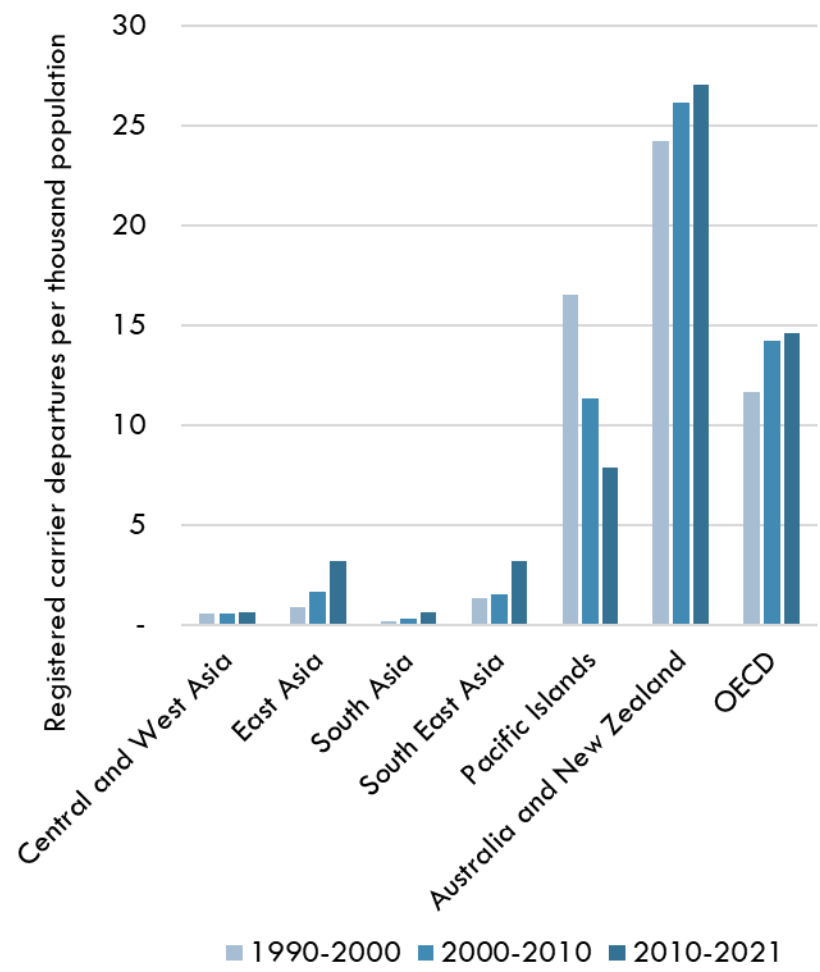
International (net change in international airport pairs by region)



Domestic (net change in domestic airport pairs by region)

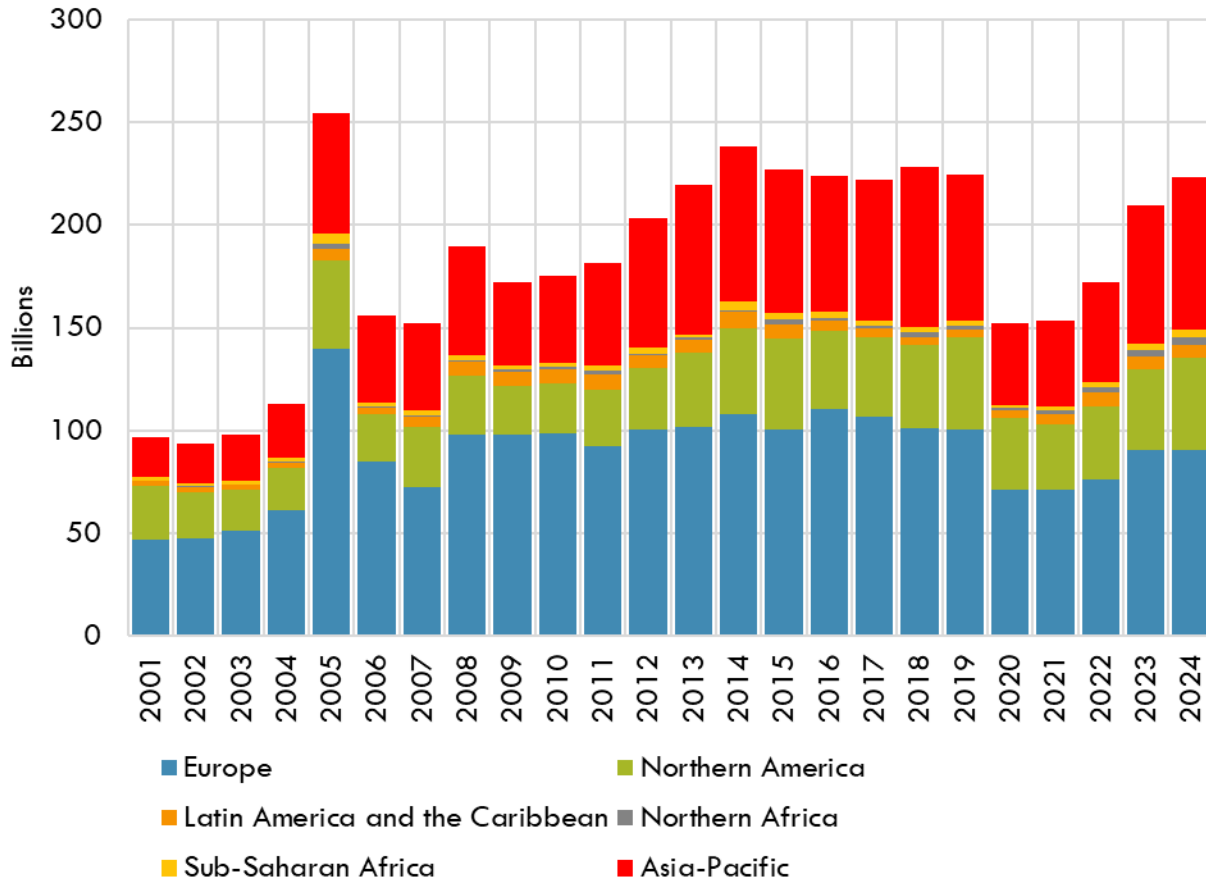


Flight per capita

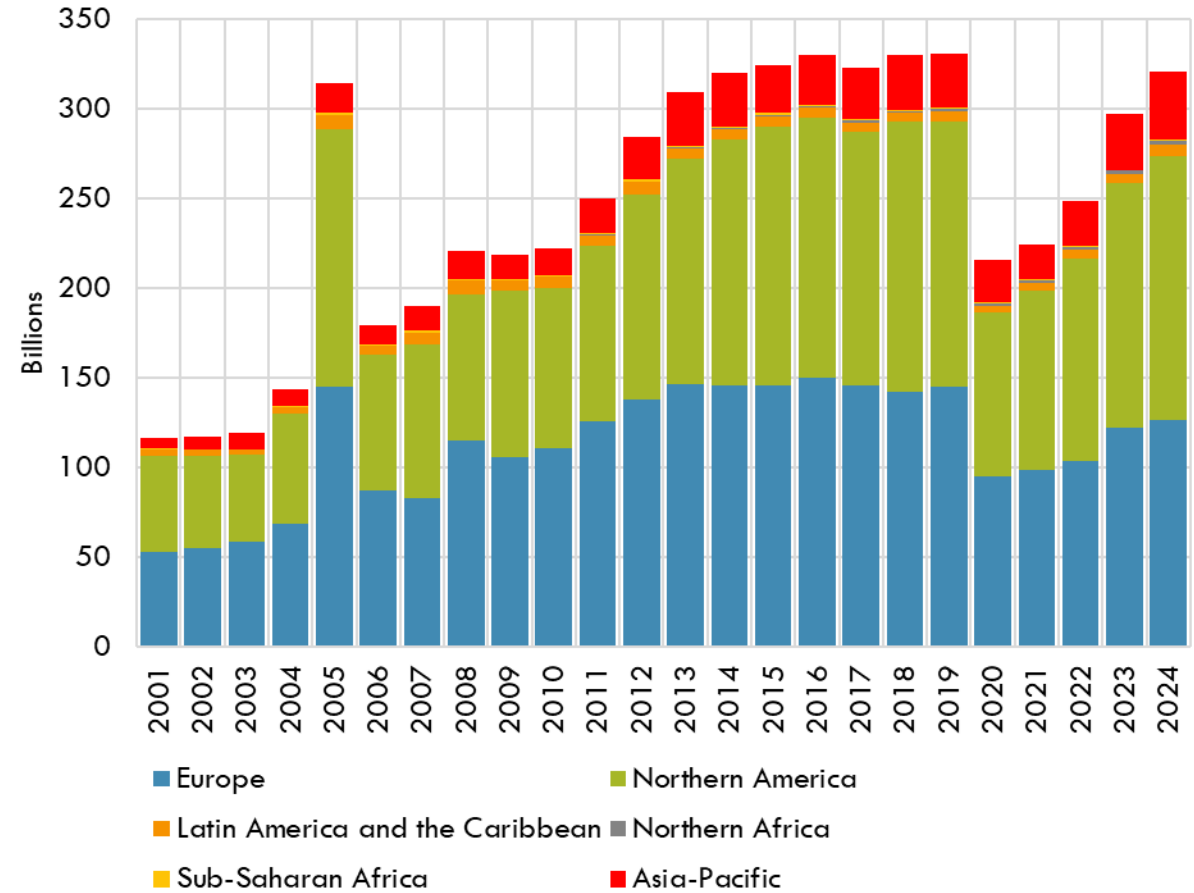


Aviation-related equipment trade

Import

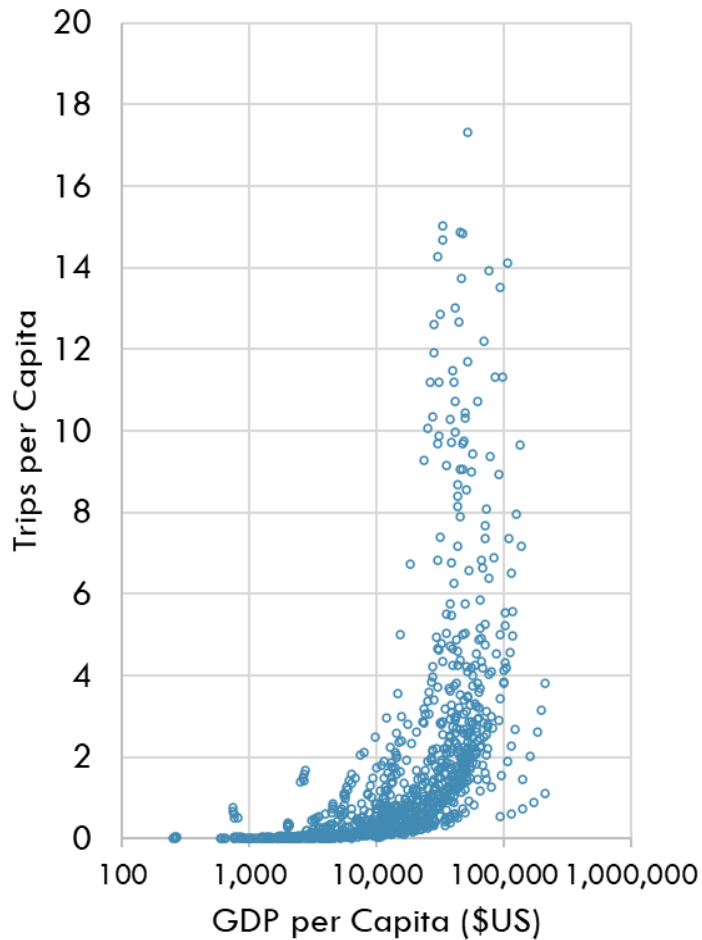


Export

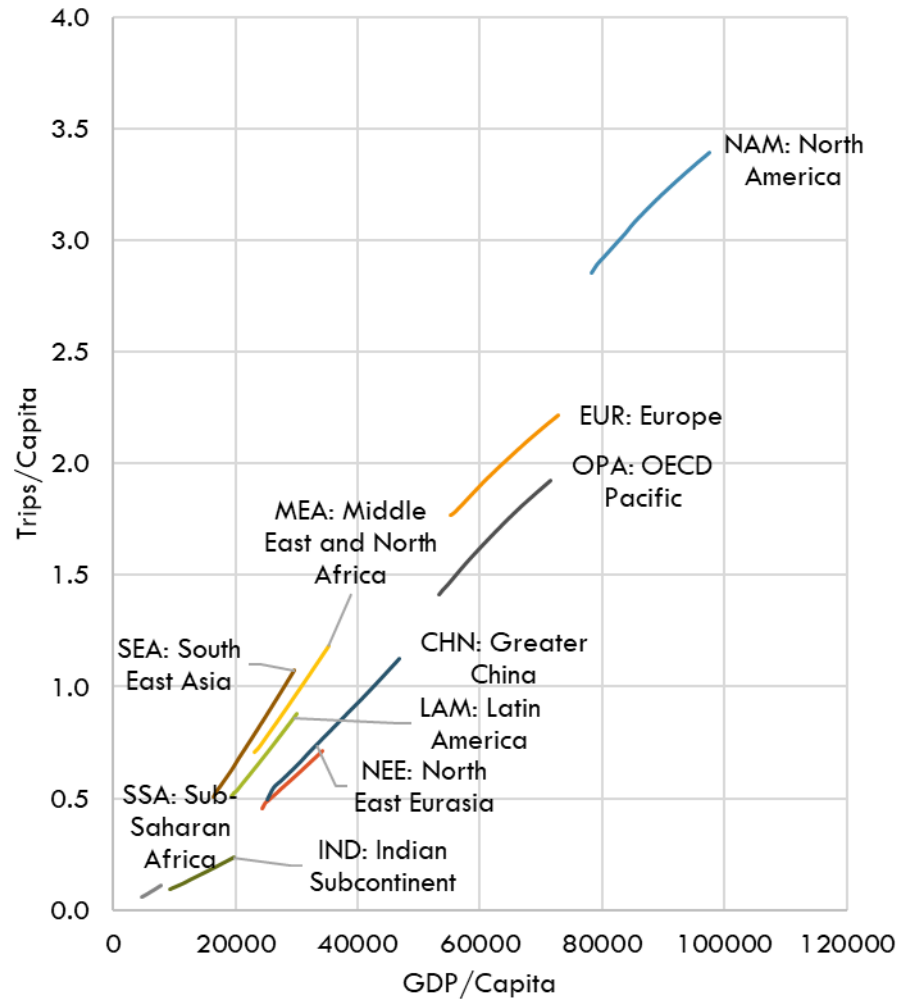


Aviation – High Propensity to Travel

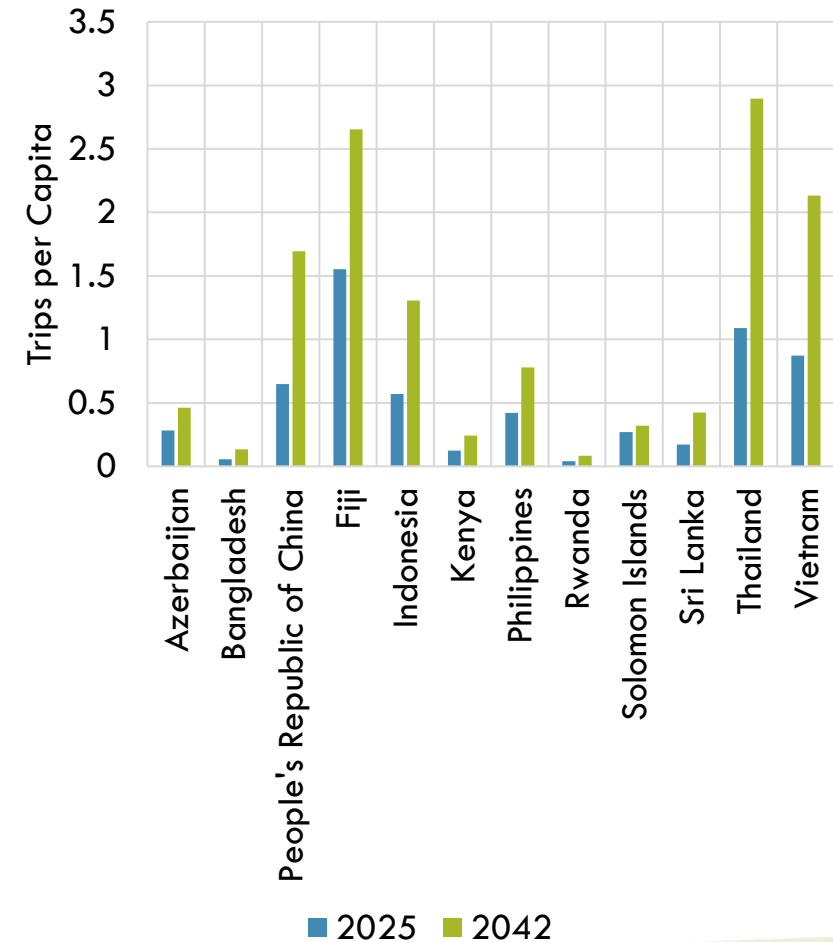
Passengers originating from respective country (2021-2040)



Aviation Passenger Demand, 2024-2050

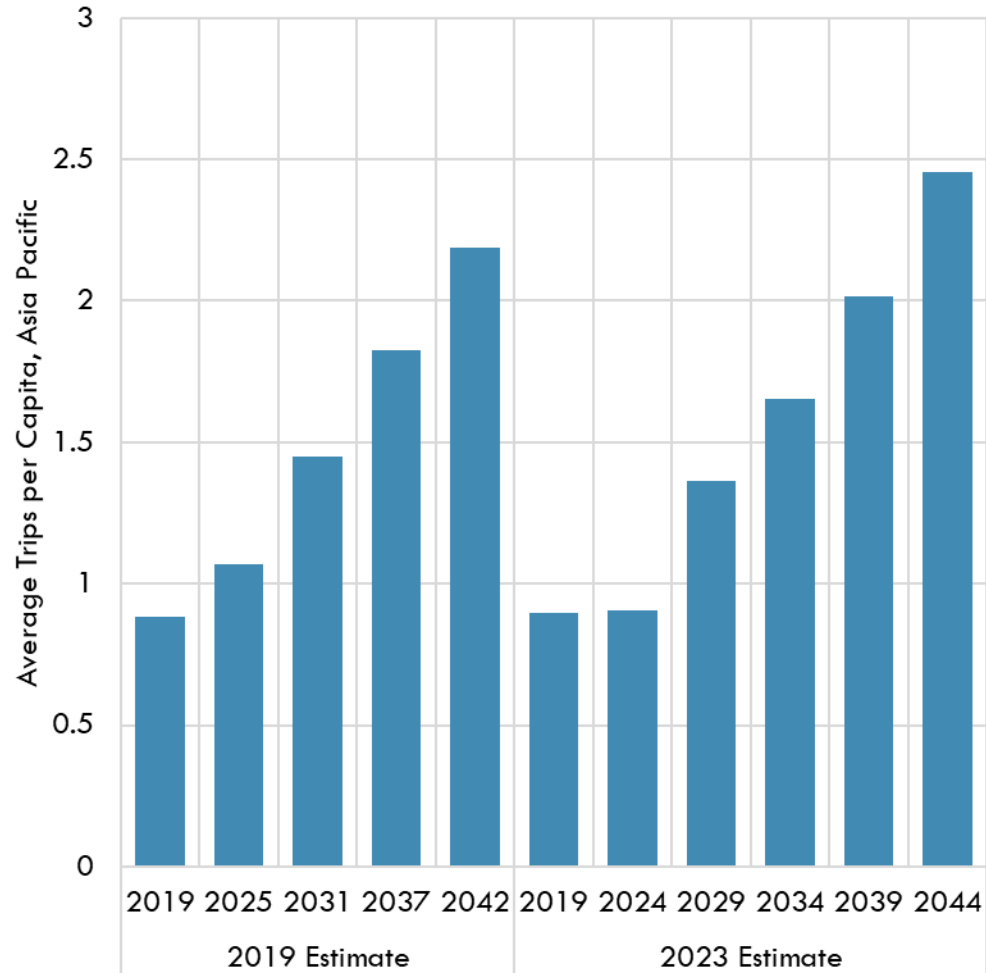


Passengers originating from respective country

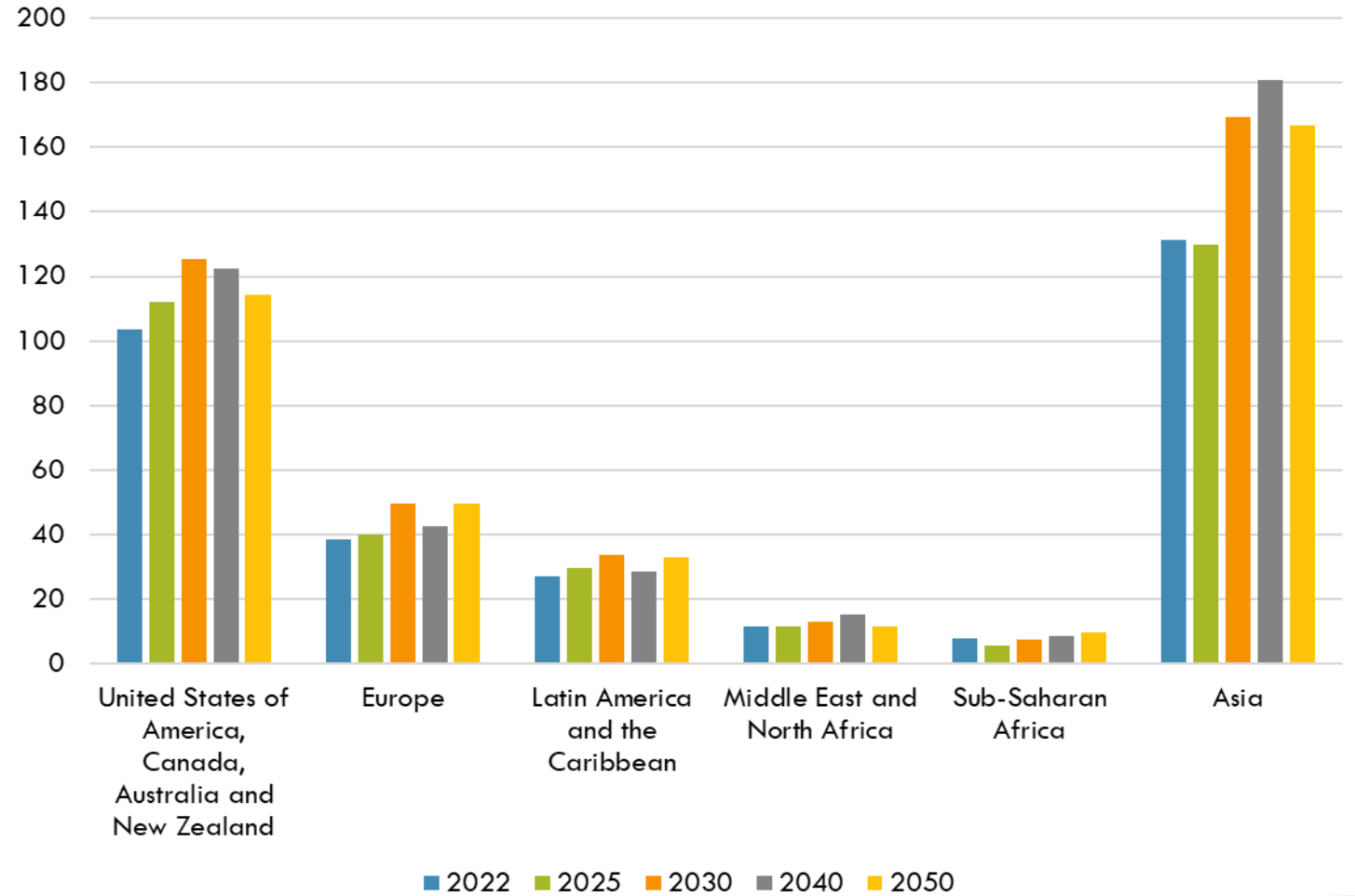


Aviation Freight Activity - Outlook

Average Trips per Capita, Asia Pacific



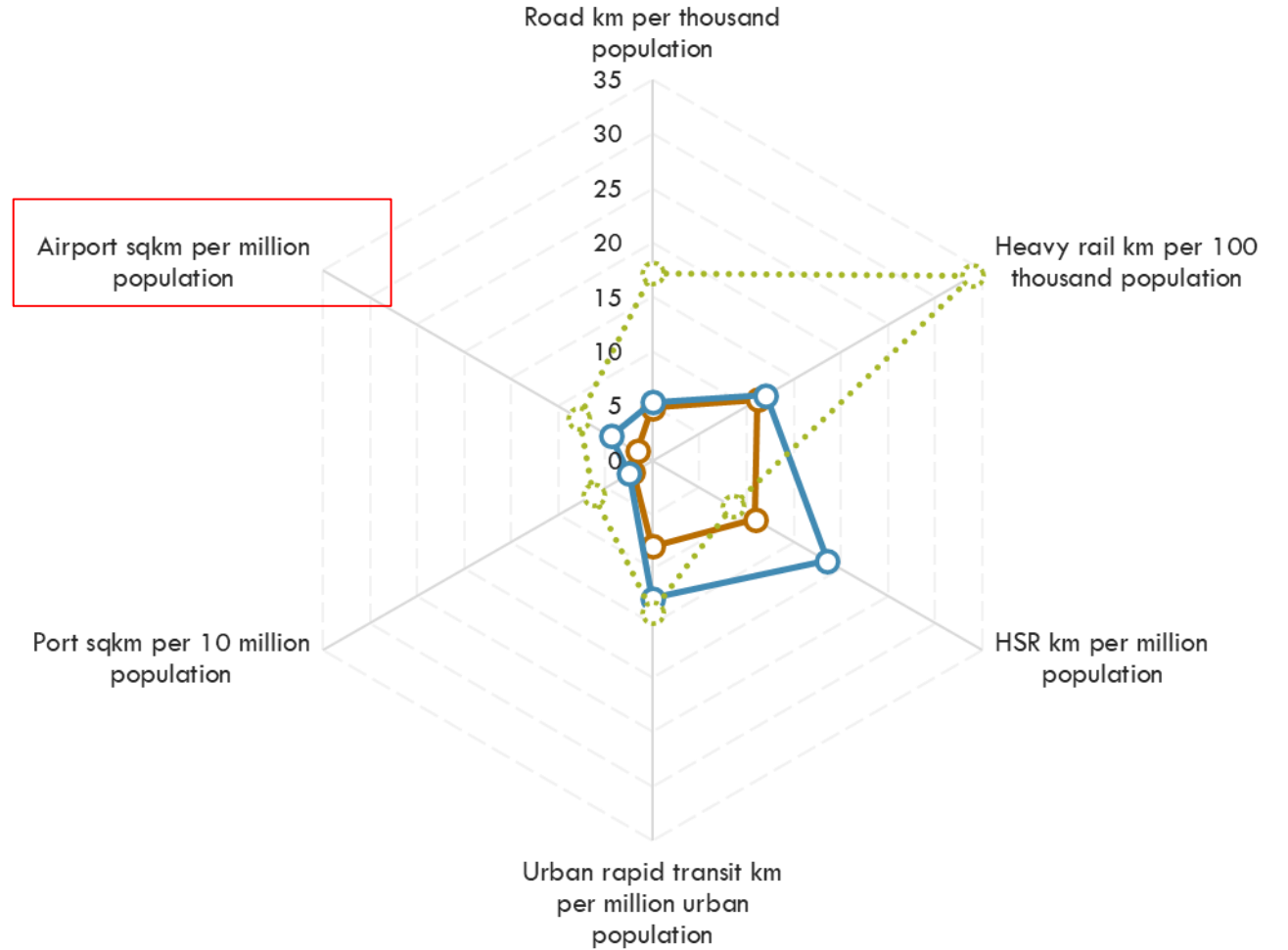
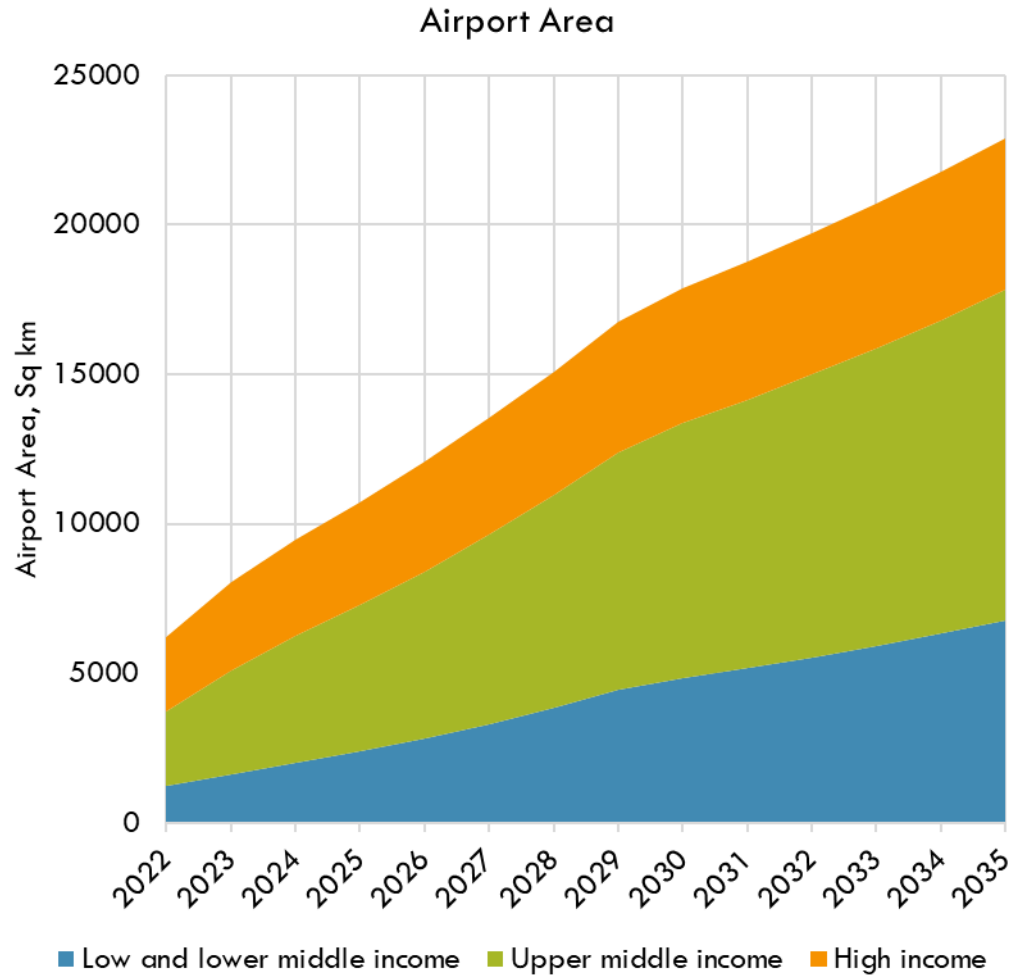
Aviation, Freight Kilometer Travel, Billion Tonne-km



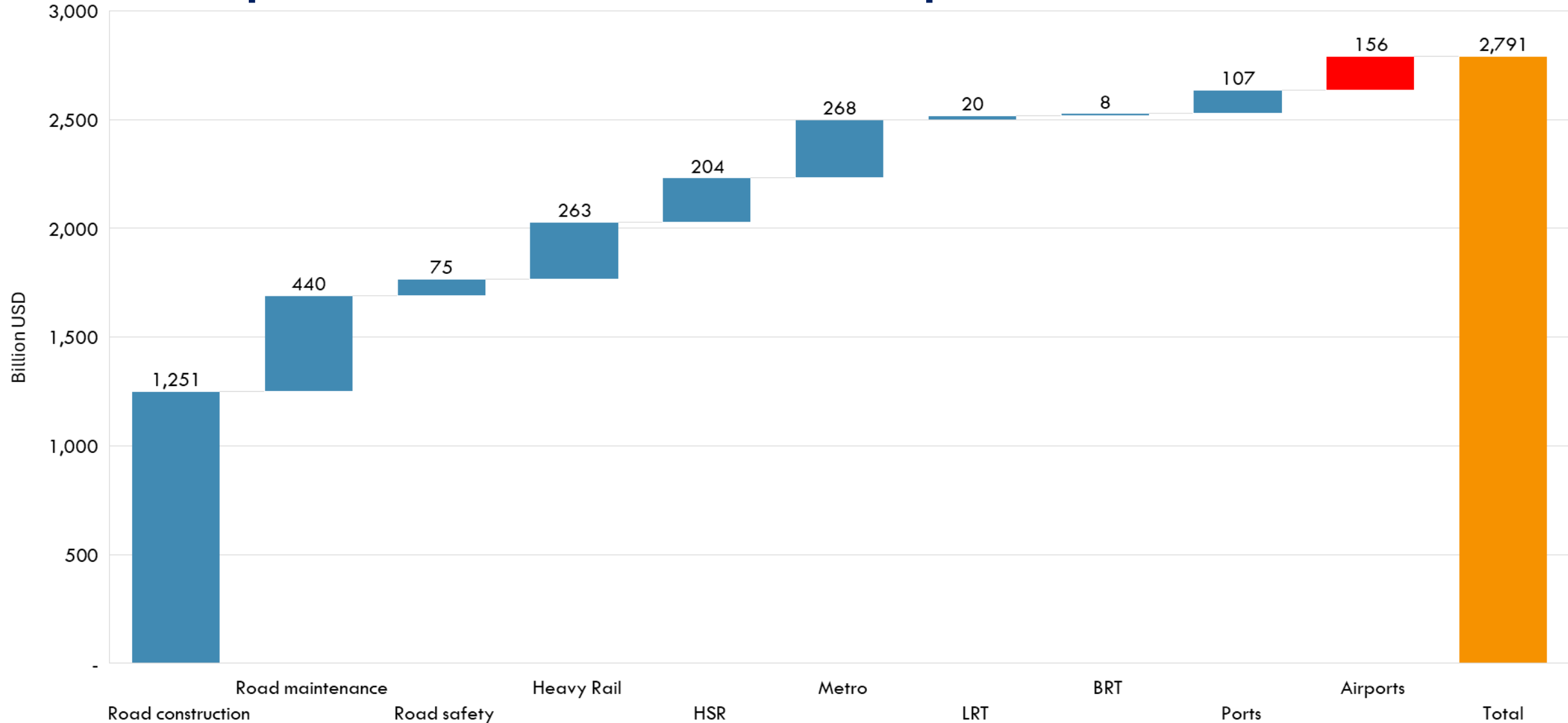
Source : ITF Outlook, 2023, Airbus

Aviation Infrastructure Outlook

- Asia-Pacific, 2023
- Asia-Pacific, 2035
- OECD, 2021-2023

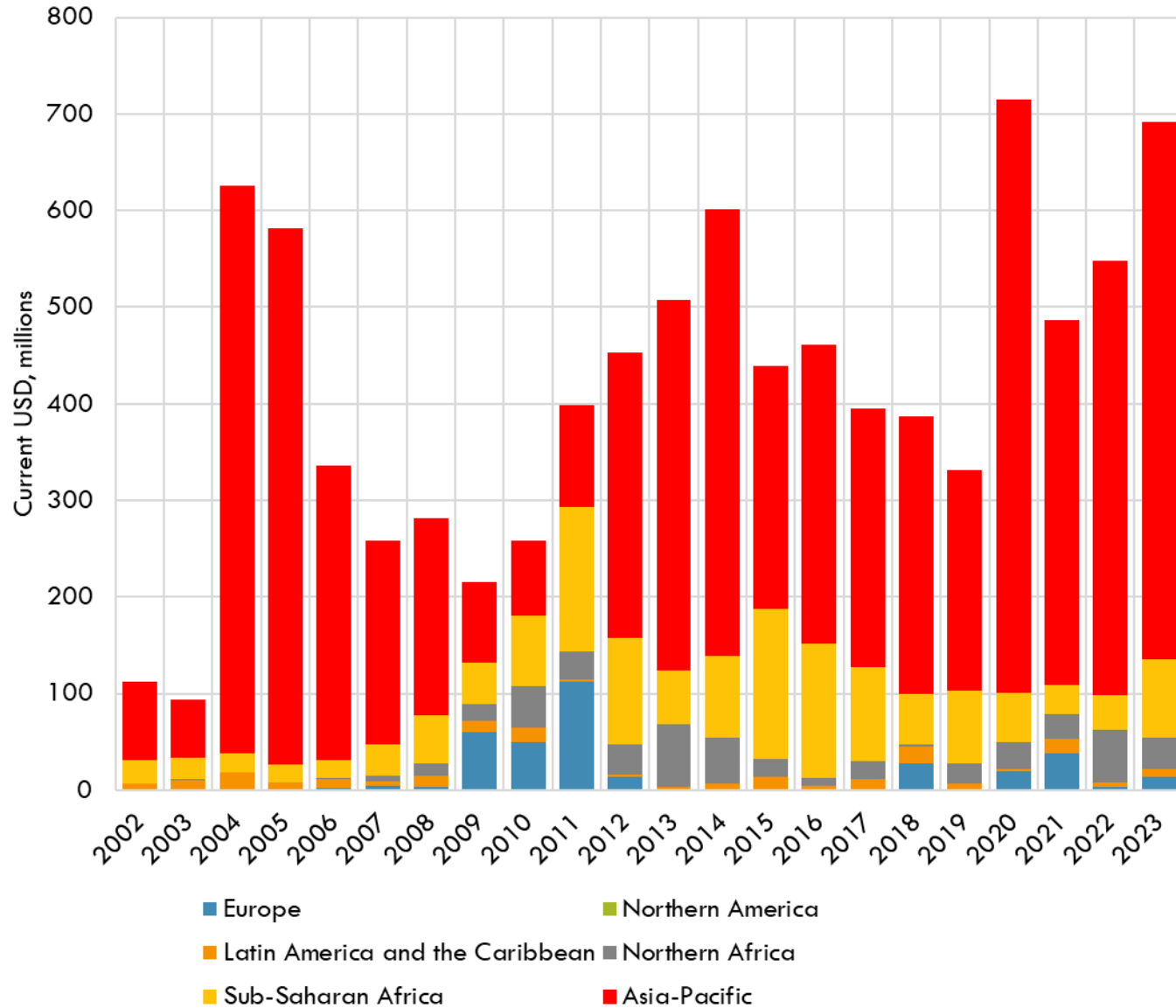


Annual transport infrastructure investment requirement, 2020-2035

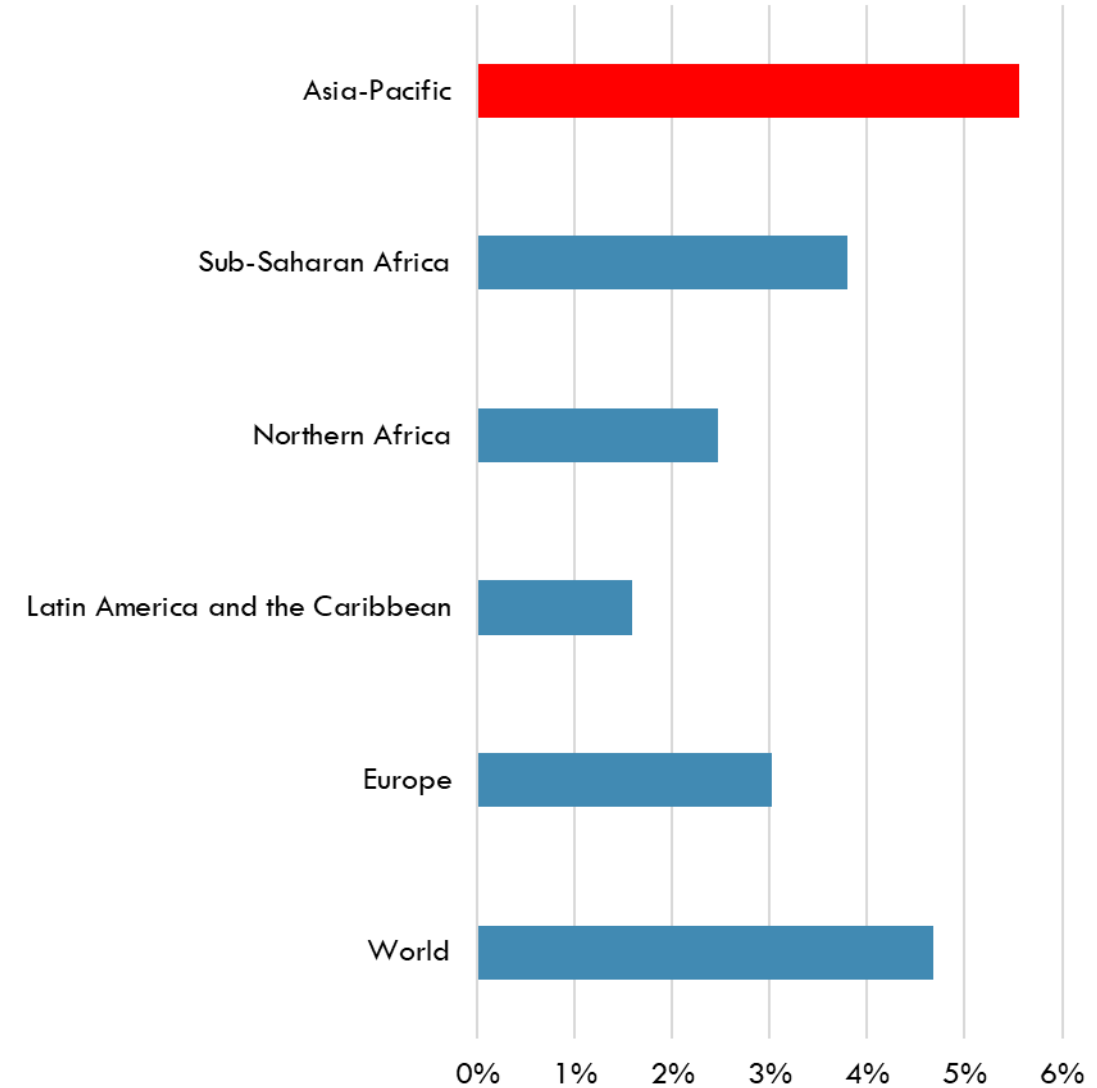


Funding Support for Aviation Infrastructure - ODA

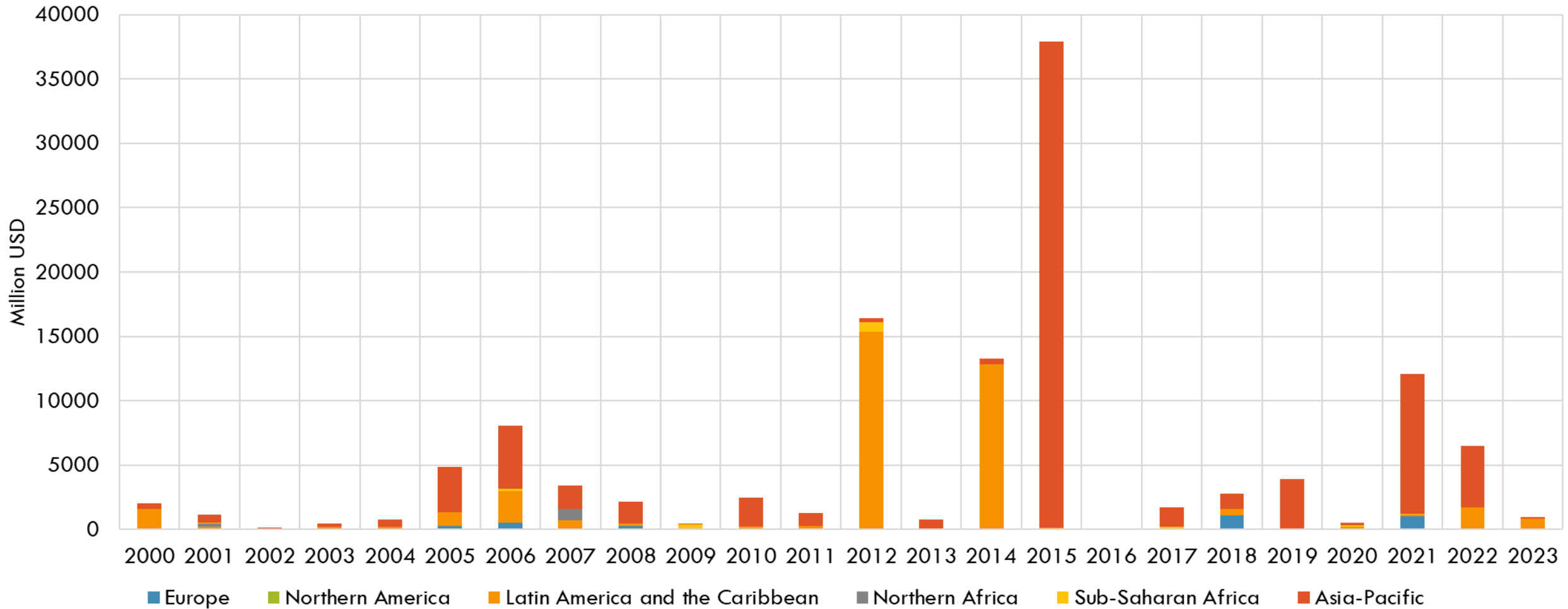
Aviation, ODA



Aviation share in Transport ODA

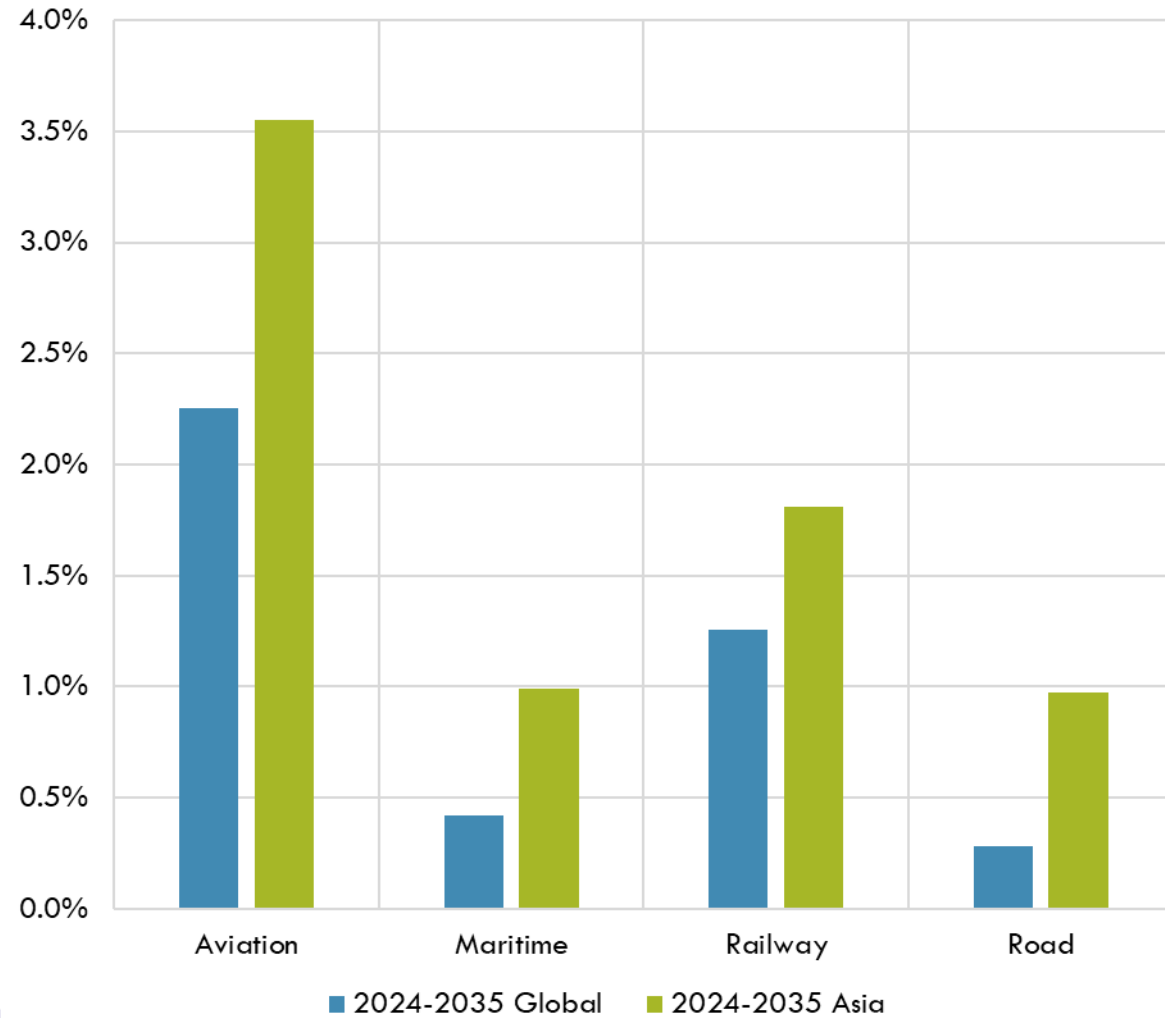


Funding Support for Aviation Infrastructure - PPP

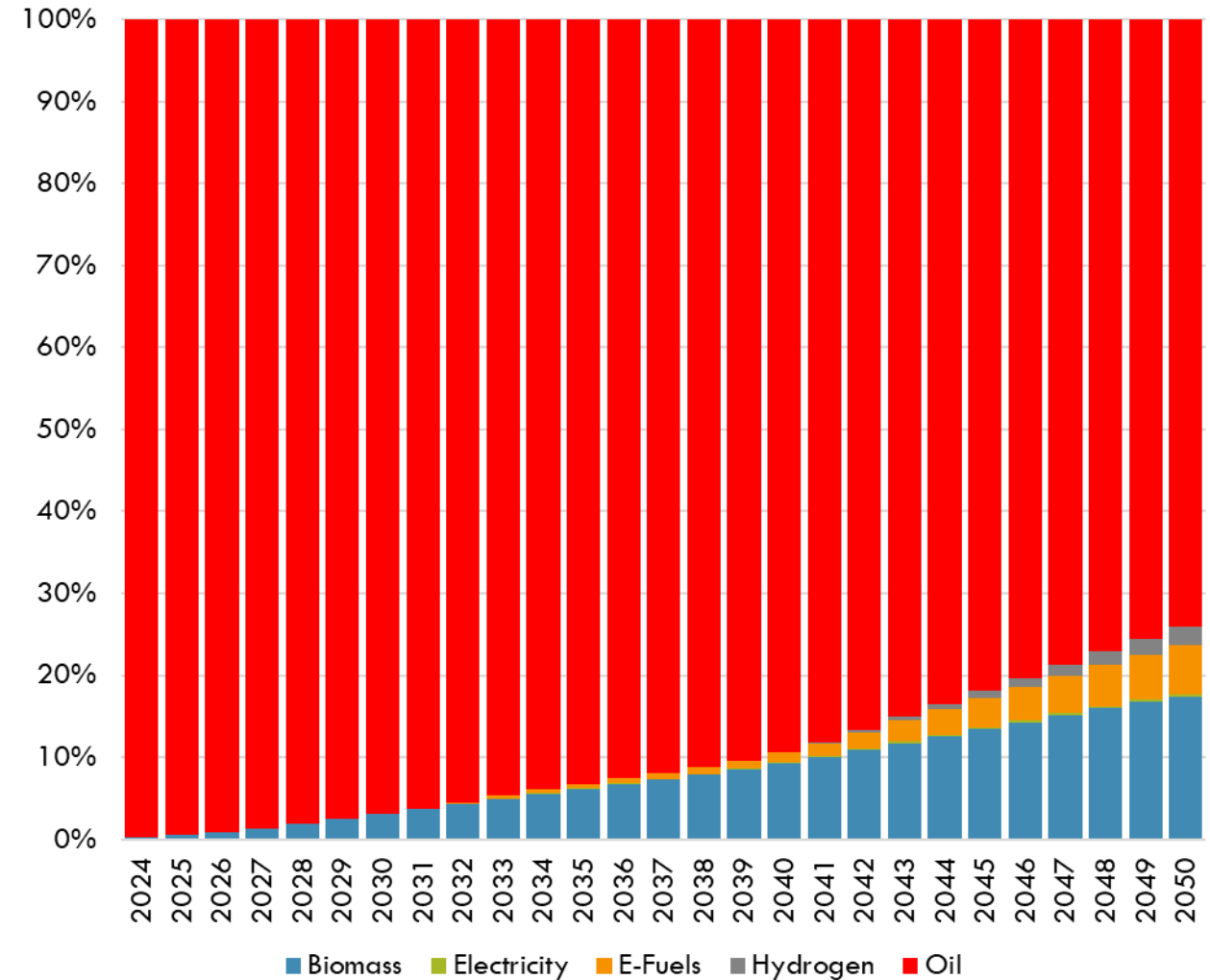


Aviation Energy Challenge

Energy Demand Growth

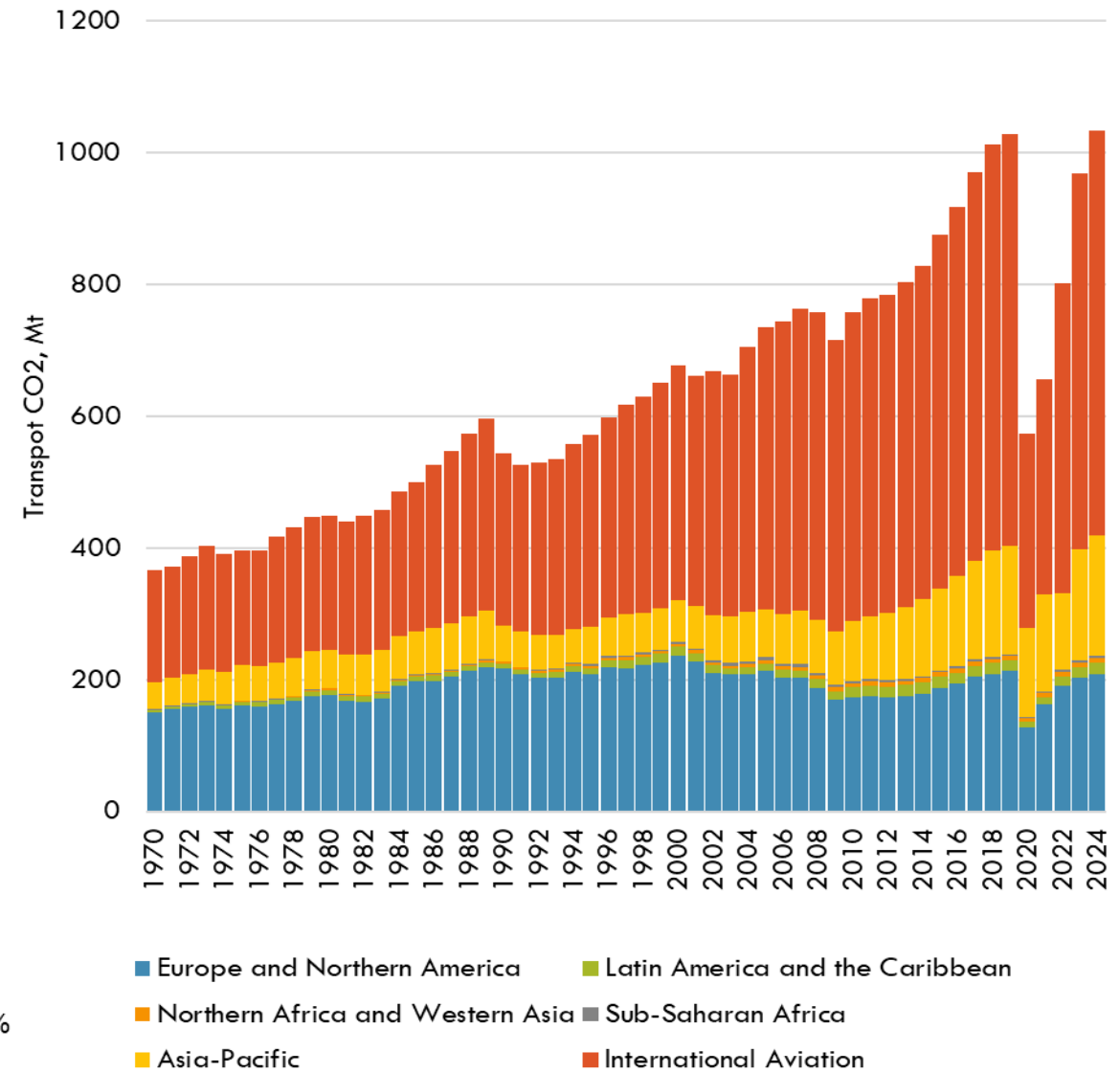
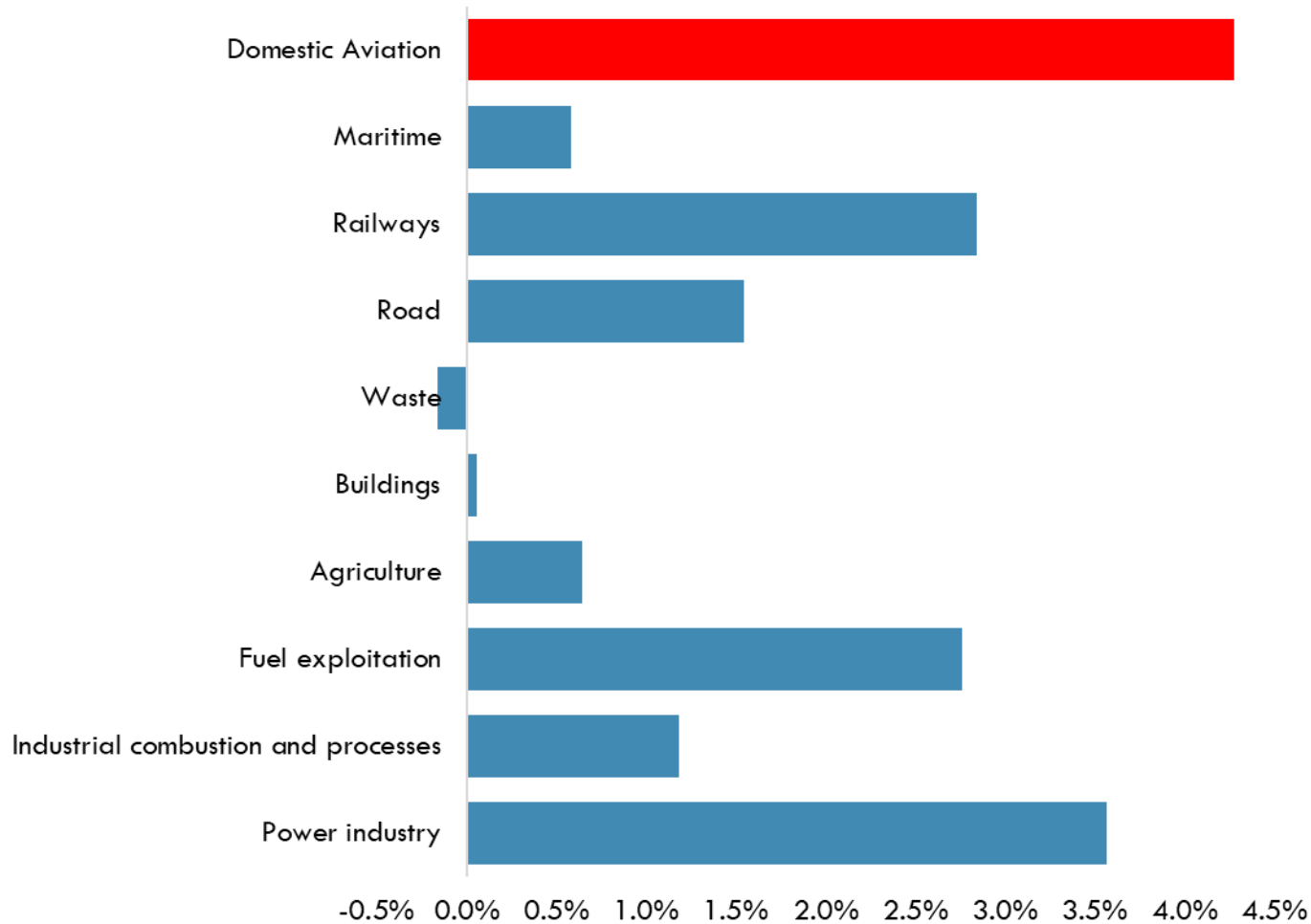


Aviation Energy Transition, Asia

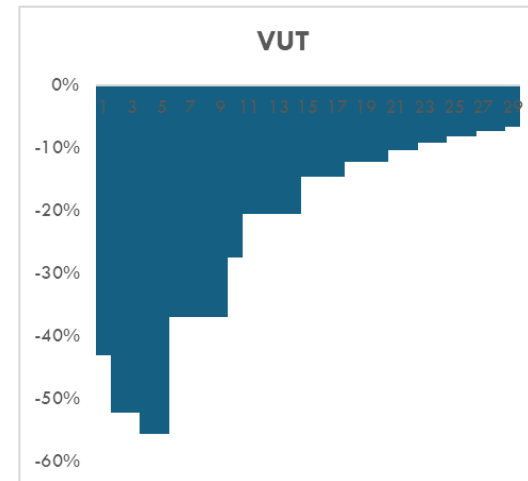
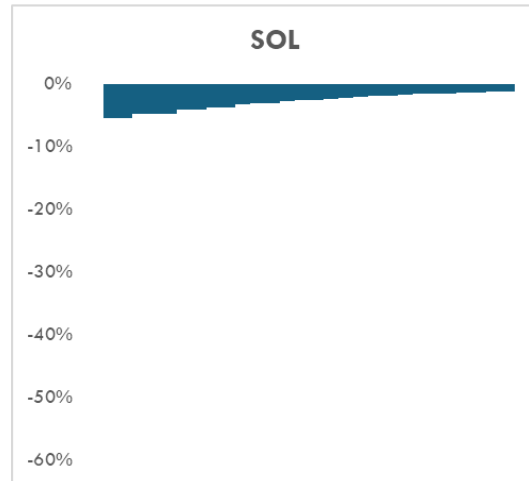
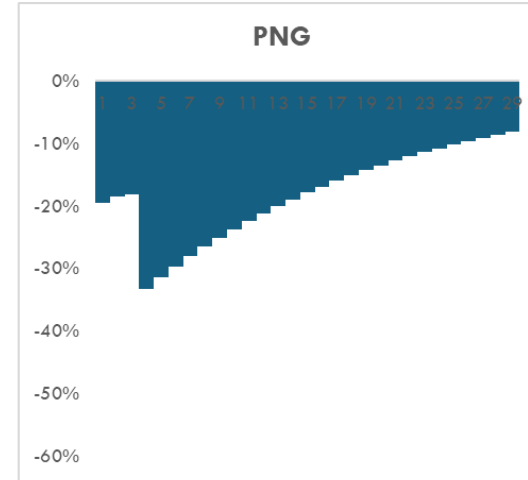
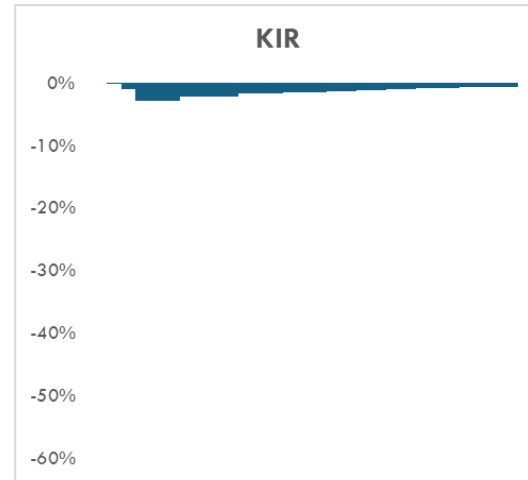
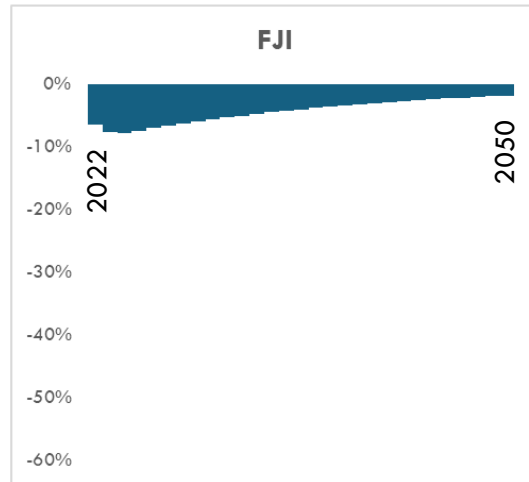


Aviation Emission Challenge

2015-2024, Annual Growth in GHG emissions in Asia



Fuel Burn Reduction % Reduction After Mitigation Measures International Civil Aviation

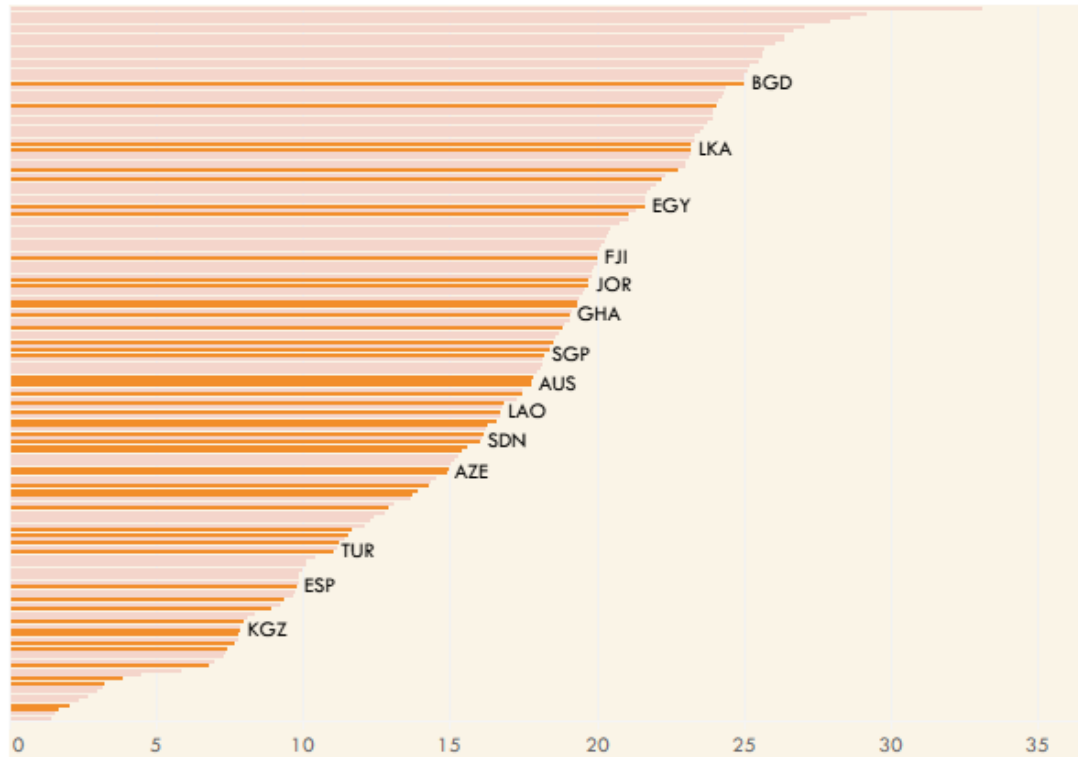


The current State Action Plans (for the set of countries included in the graphs) for Reducing CO₂ Emissions from International Civil Aviation could reduce fuel consumption by a total of **6% up to 2050**.

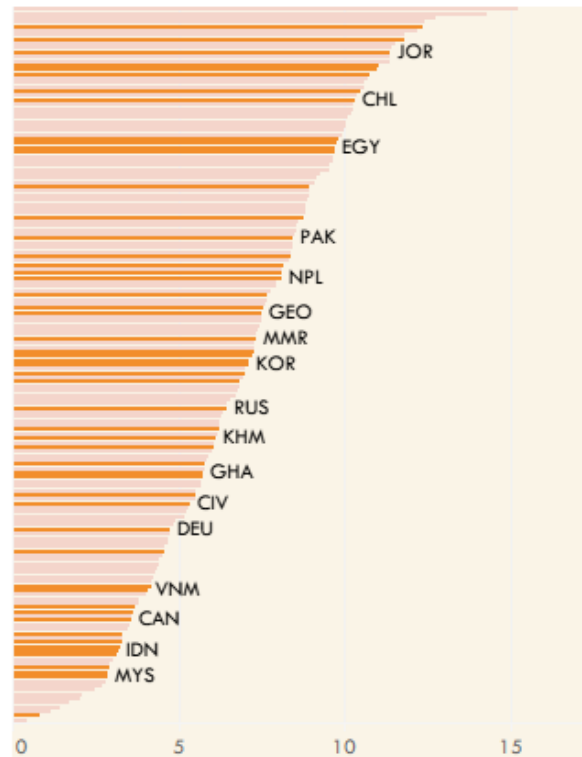
Sustainable Aviation Fuels – Potential Yield

Tons/hectare

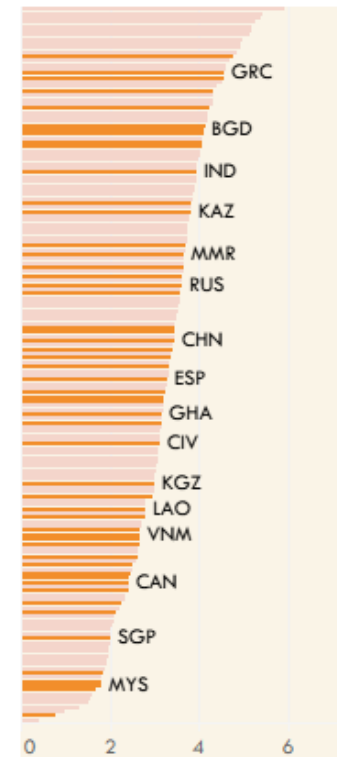
Miscanthus



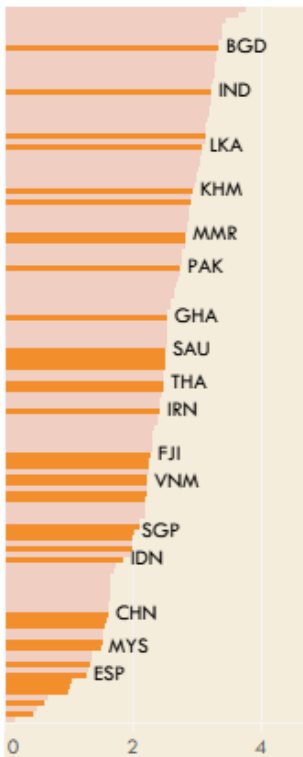
Maize



Soybean



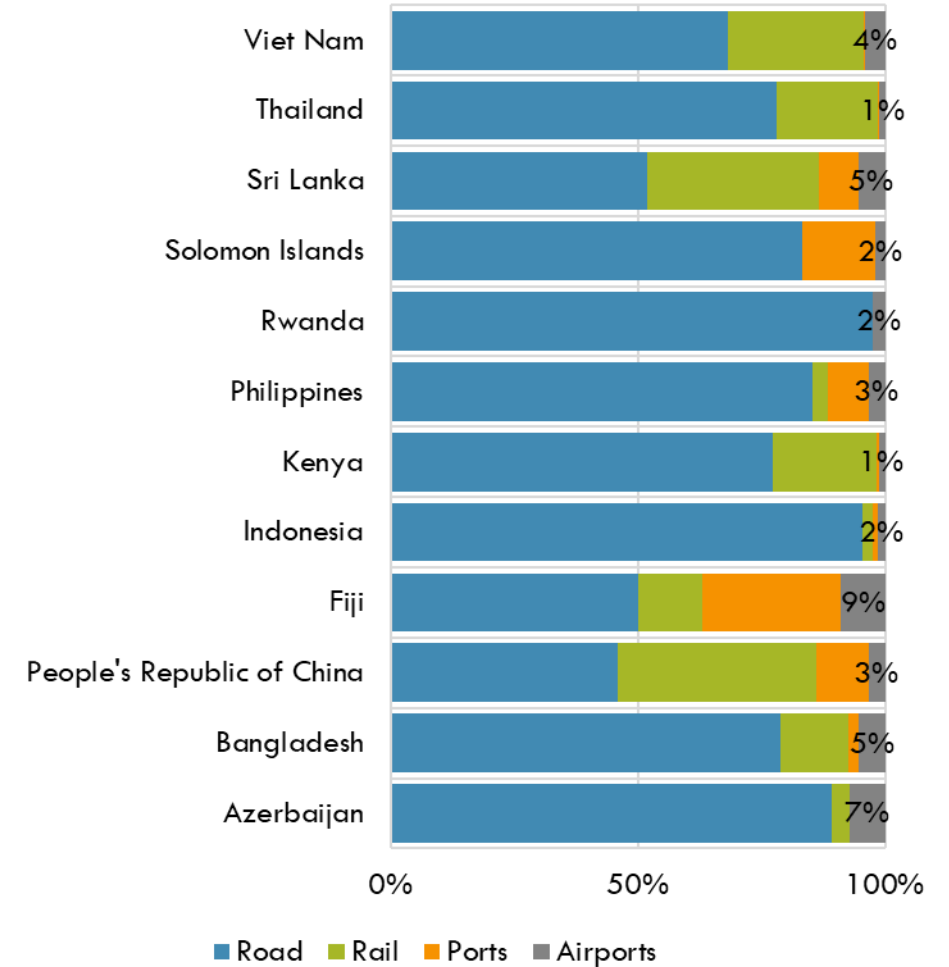
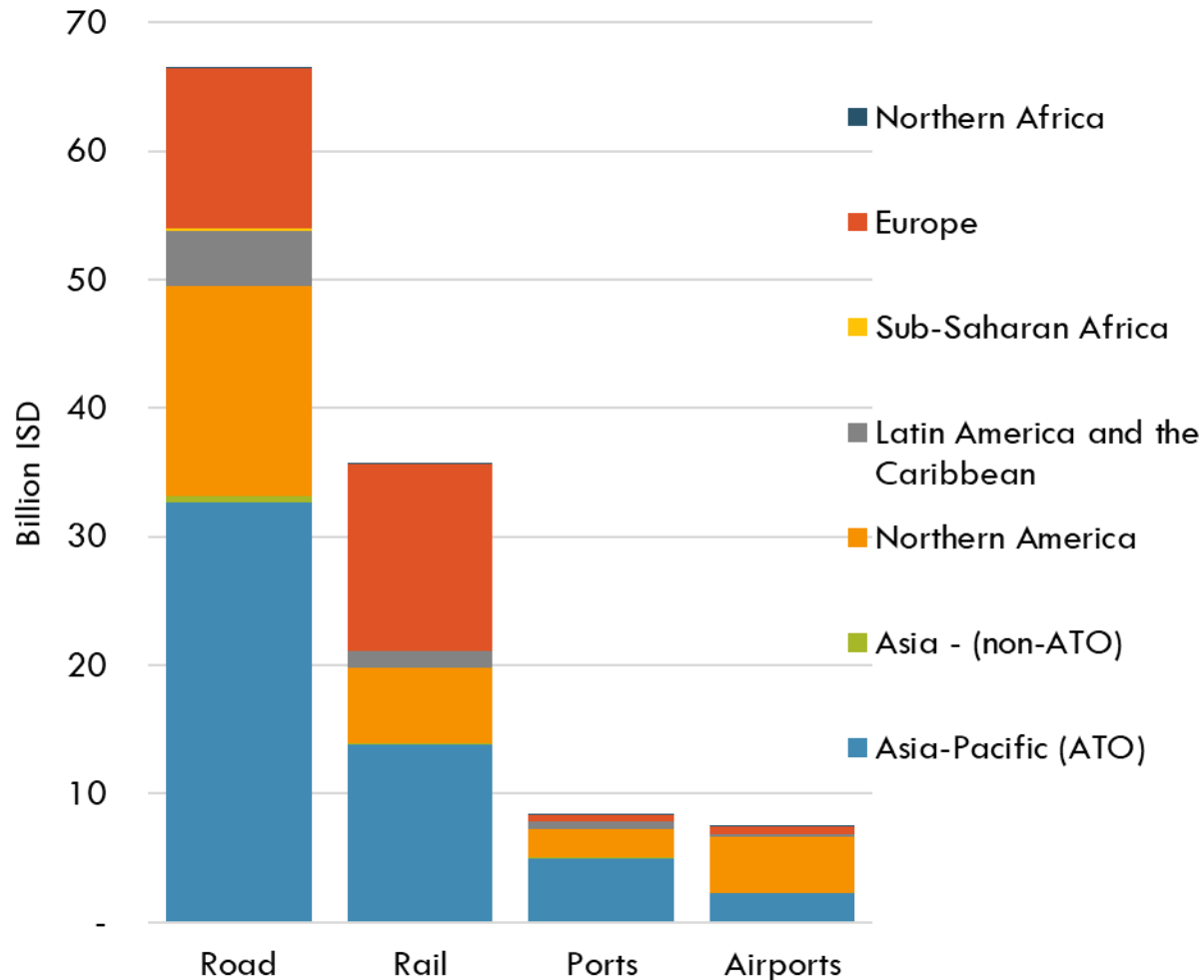
Jathropa



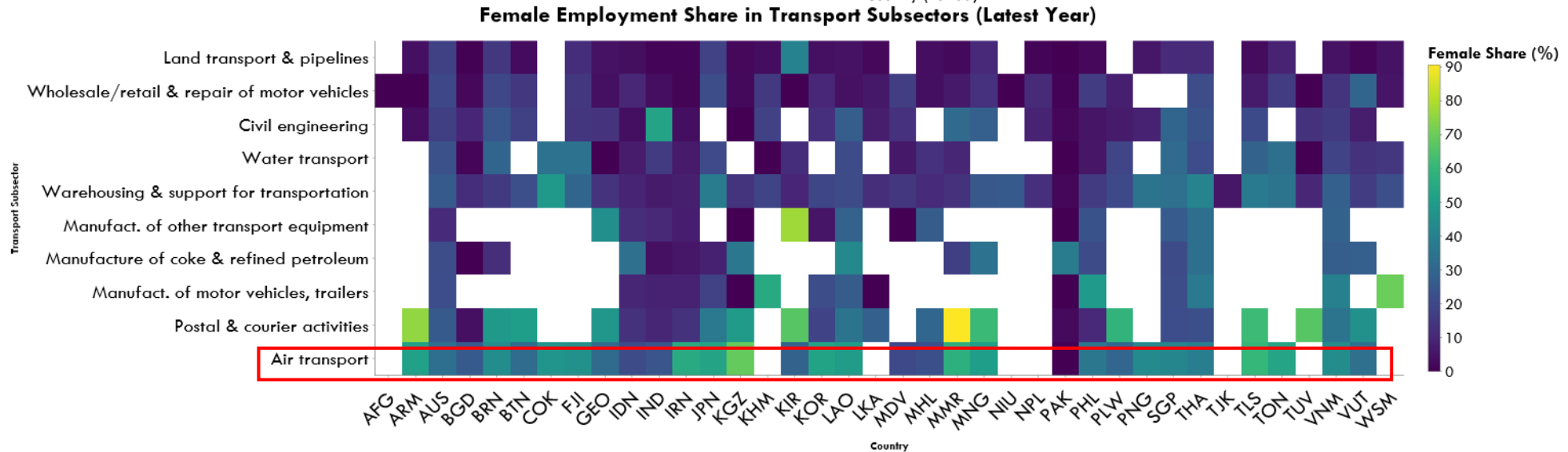
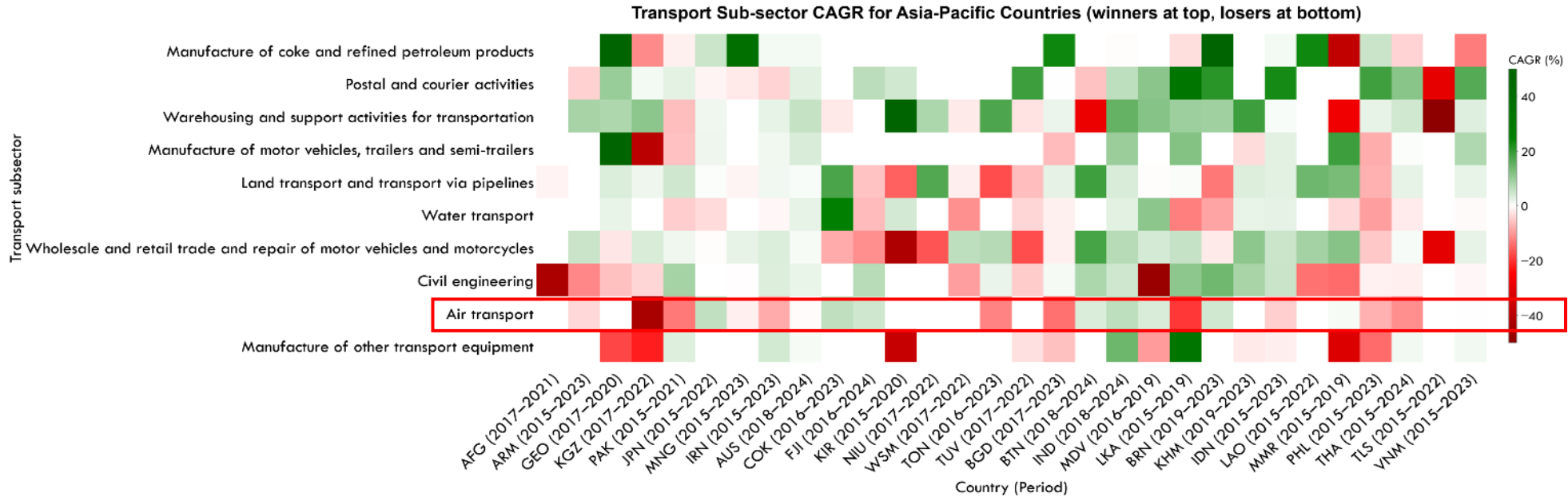
- Irrigated miscanthus estimated to be top potential feedstock to be cultivated in terms of overall potential yield, and lowest levels of direct land use change emissions per hectare

Average annual loss due to all potential hazards

Average Annual Financial Losses due to Environmental Hazards (billion USD)

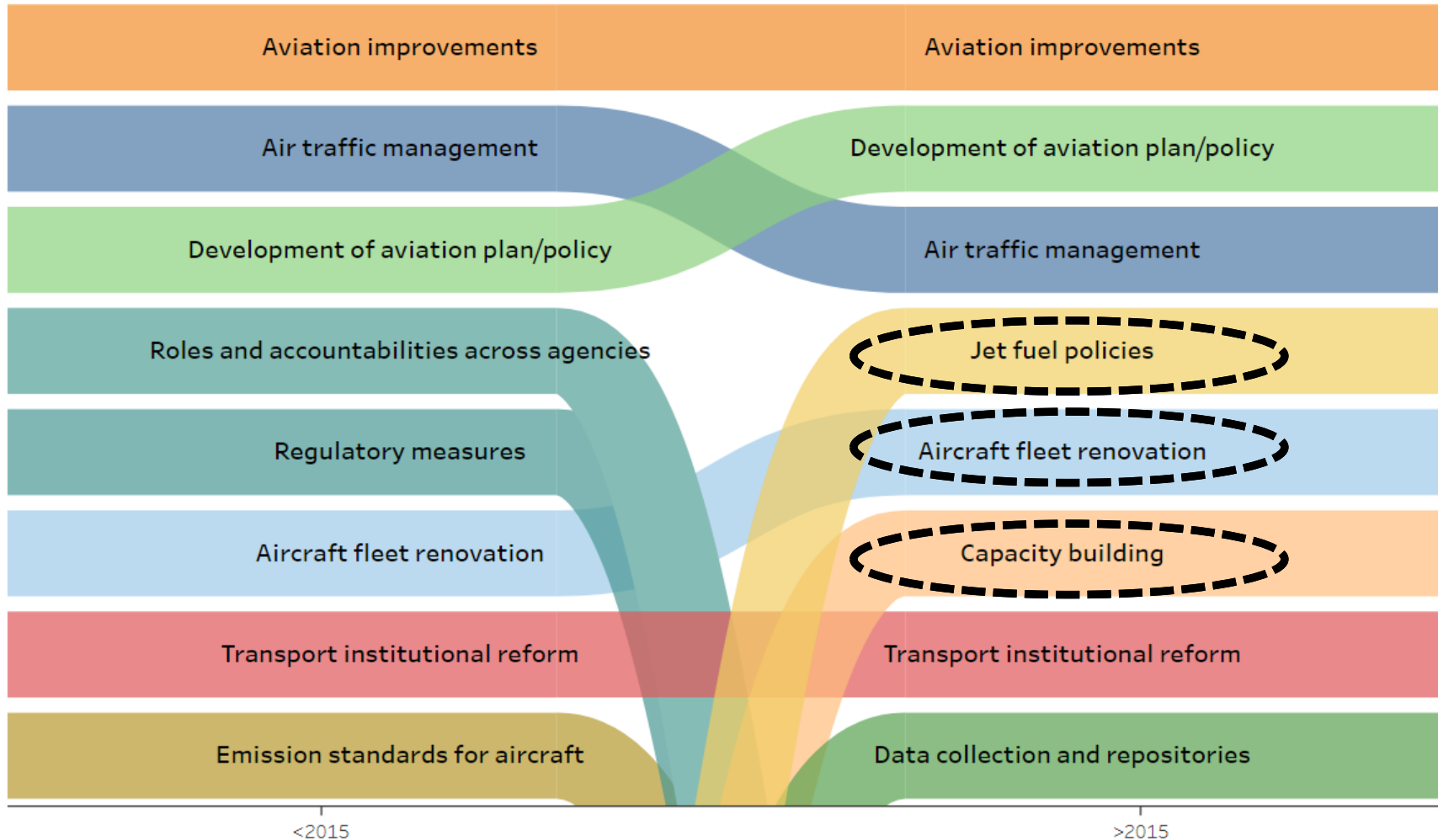


Employment in Transport



Evolving Aviation policy landscape – Asia-Pacific

Aviation measures



Sustainable Aviation Fuels (SAF) Targets

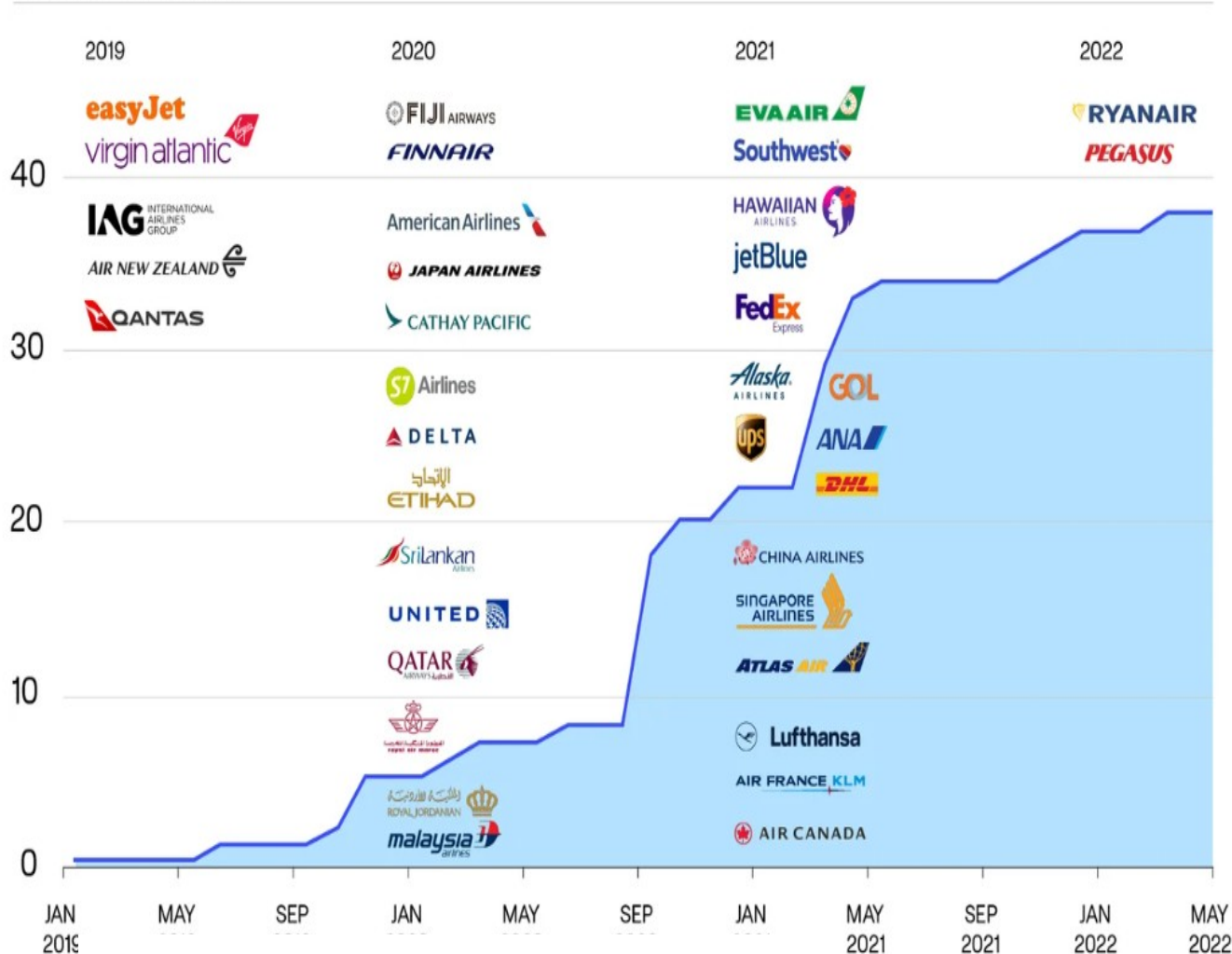


Example - Aviation specific targets for Pacific Islands

Country	Target statement	Document Name	Year Published	Target year
Fiji	Introduction of biojet fuel around year 2030, with incremental increase of 20% of passenger activity to be serviced by biojet fuelled planes by 2040 and further increases to 40% by 2050.	Fiji Low Emission Development Strategy 2018-2050	2018	2030
Papua New Guinea	Up to 50 airstrips will be rehabilitated according to their economic viability, taking into account alternative options for access provided by improving road and water transport.	Development Strategic Plan 2010-2030	2010	2030
Papua New Guinea	10 airports upgraded for larger jets	Development Strategic Plan 2010-2030	2010	2030
Papua New Guinea	Safety standards at 100% of PNG's regional airports do not meet international certification standards.	Development Strategic Plan 2010-2030	2010	2030
Kiribati	Number of flight schedules per month will be increase to 30 by 2019 and to 50 by 2036	KV20 Vision	2017	2036
Papua New Guinea	2% annual fuel efficiency improvement through to 2050 and carbon-neutral growth from 2020 onwards, and a Long Term Global Aspirational Goal (LTAG) of net-zero carbon emissions by 2050.	Papua New Guinea State Action Plan	2023	2050
Fiji	Fiji Airways plans to grow this annually towards its target of 10% SAF by 2030.	Fiji's State Action Plan on CO2 Emissions Reduction from International Aviation	2024	2030
Fiji	Net Zero aviation emissions by 2050.	Fiji's State Action Plan on CO2 Emissions Reduction from International Aviation	2024	2050
Kiribati	Achieving carbon-neutral growth from 2020 onwards, and a long-term global aspirational goal (LTAG) of net-zero carbon emissions by 2050.	Kiribati Action Plan on CO2 Emissions Reduction from International Aviation	2023	2050
Tonga	Carbon-neutral growth from 2020 onwards, coupled with a long-term global aspirational goal (LTAG) of net-zero carbon emissions by 2050	Kingdom of Tonga's State Action Plan on CO2 Emissions Reduction from International Aviation	2024	2050
Tonga	2% annual fuel efficiency improvement through 2050	Kingdom of Tonga's State Action Plan on CO2 Emissions Reduction from International Aviation	2024	2050
Solomon Islands	Carbon-neutral growth from 2020 onwards, and a long-term global aspirational goal (LTAG) of net-zero carbon emissions by 2050	Solomon Islands Action Plan to Reduce CO2 Emissions from International Aviation	2023	2050
Solomon Islands	2% annual fuel efficiency improvement through 2050	Solomon Islands Action Plan to Reduce CO2 Emissions from International Aviation	2023	2050
Vanuatu	Carbon-neutral growth from 2020 onward	Action Plan for CO2 Emissions Reduction from International Civil Aviation in Vanuatu	2023	2050
Vanuatu	2% annual fuel efficiency improvement through 2050	Action Plan for CO2 Emissions Reduction from International Civil Aviation in Vanuatu	2023	2050

Examples of targets

Number of airlines



Source: [Bloomberg BNEF, press releases](#)

	Road	Rail	Shipping	Aviation
Azerbaijan	✓	✓	✓	✓
Bangladesh	✓	✓		
Bhutan	✓	✓		
Brunei Darussalam	✓	✓	✓	✓
Cambodia	✓	✓	✓	✓
Indonesia	✓	✓	✓	✓
Kazakhstan	✓			
Kyrgyz Republic	✓	✓	✓	✓
Lao People's Democratic Republic	✓	✓	✓	✓
Malaysia	✓	✓	✓	✓
Maldives	✓		✓	
Marshall Islands	✓	✓	✓	✓
Mongolia	✓	✓	✓	✓
Myanmar	✓	✓	✓	✓
Nauru	✓	✓	✓	✓
Nepal	✓	✓	✓	✓
Pakistan	✓	✓		
Palau	✓	✓	✓	✓
Papua New Guinea	✓		✓	✓
People's Republic of China	✓	✓	✓	✓
Philippines	✓	✓	✓	✓
Solomon Islands	✓	✓	✓	✓
Sri Lanka	✓	✓	✓	✓
Thailand	✓	✓	✓	✓
Timor-Leste	✓	✓	✓	✓
Uzbekistan	✓	✓		✓
Vanuatu	✓	✓	✓	✓
Viet Nam	✓	✓	✓	✓

Source: ATO Policy tracker

How to Transform the Aviation Sector?



A Dashboard for Sustainable Transport in Asia and the Pacific



The Two Faces of Progress:
Decarbonizing Asia's Transport Sector
A Primer for COP 30
October 2025

asiantransportobservatory.org

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

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