Asian Transport Observatory

State of play of rail transport:

North and Central Asian Countries

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Asian Transport Observatory

High-Level Meeting on
Deepening Digitalization of International Rail Transport
in Asia-Pacific
13 - 15 May 2025, Xian, China

ADB ASIAN DEVELOPMENT BANK

AIIB ASIAN INFRASTRUCTURE INVESTMENT BANK



Asian Transport Observatory (ATO)

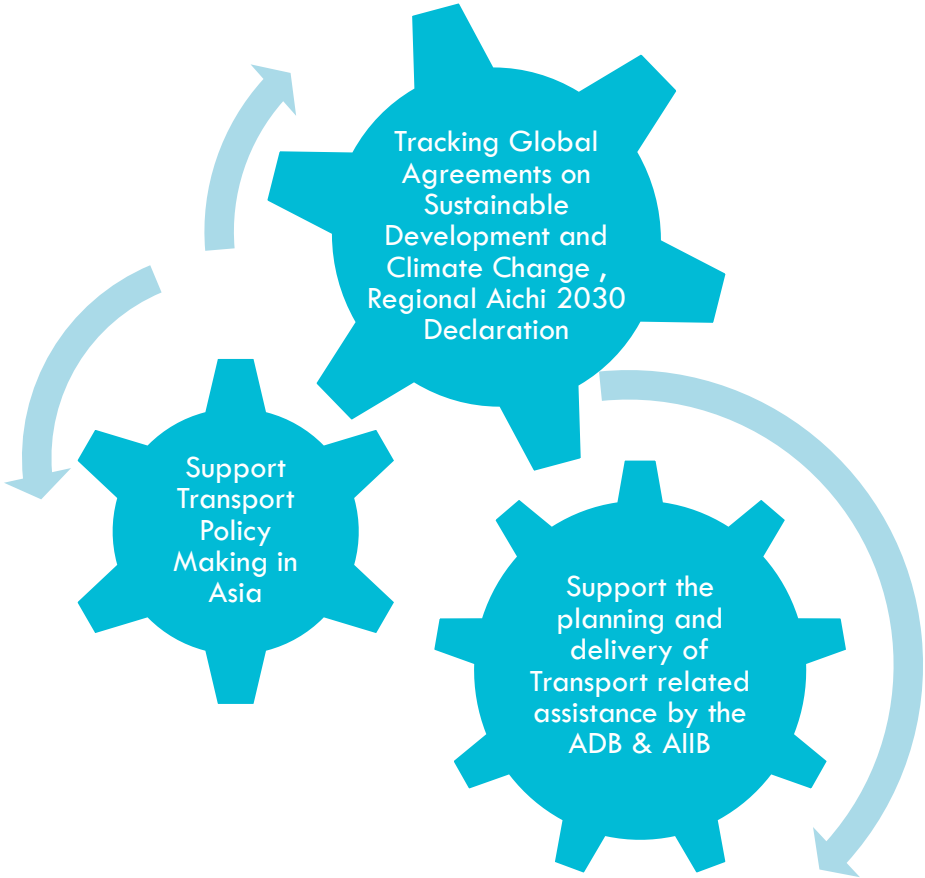
A Catalyst for Sustainable Transport in Asia



50+ 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



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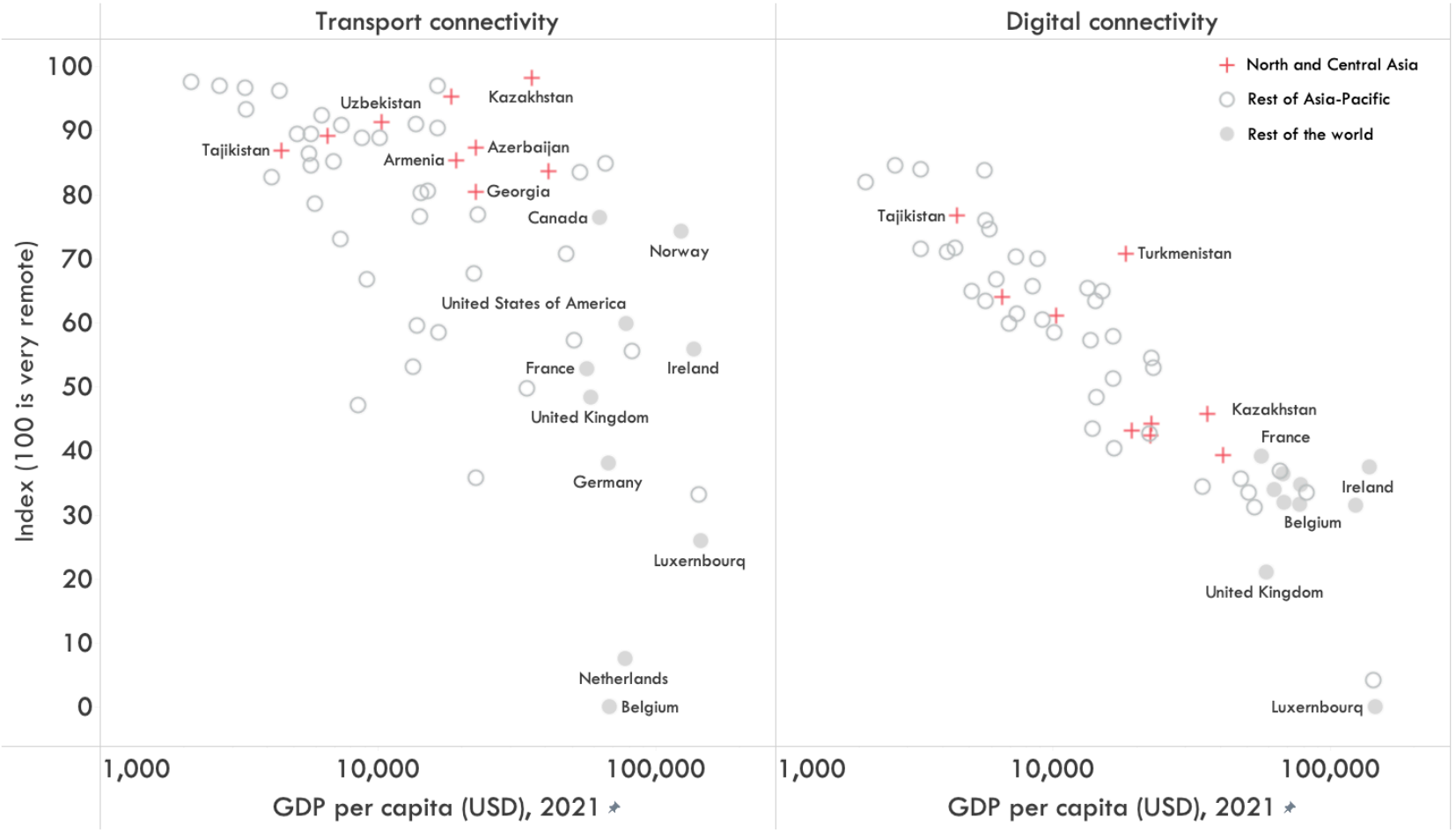
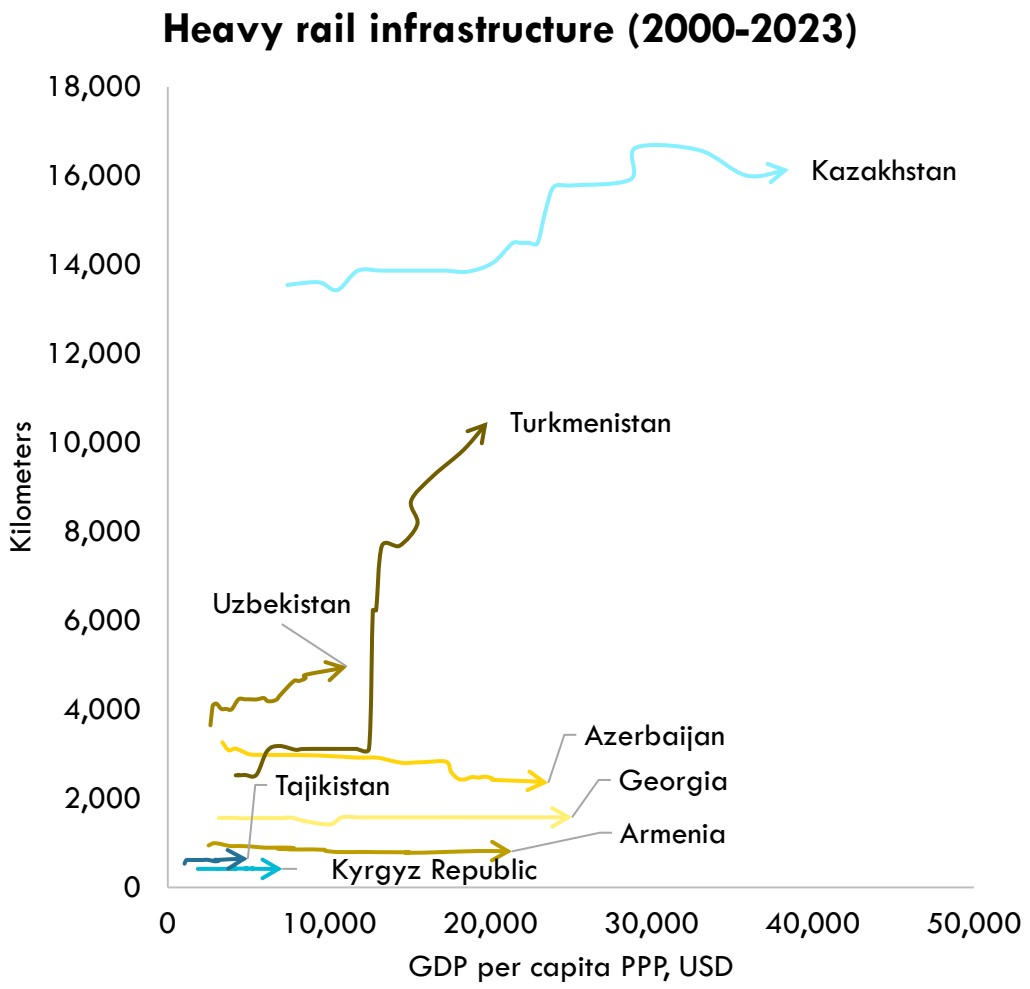
Landlocked limits, growing but still isolated

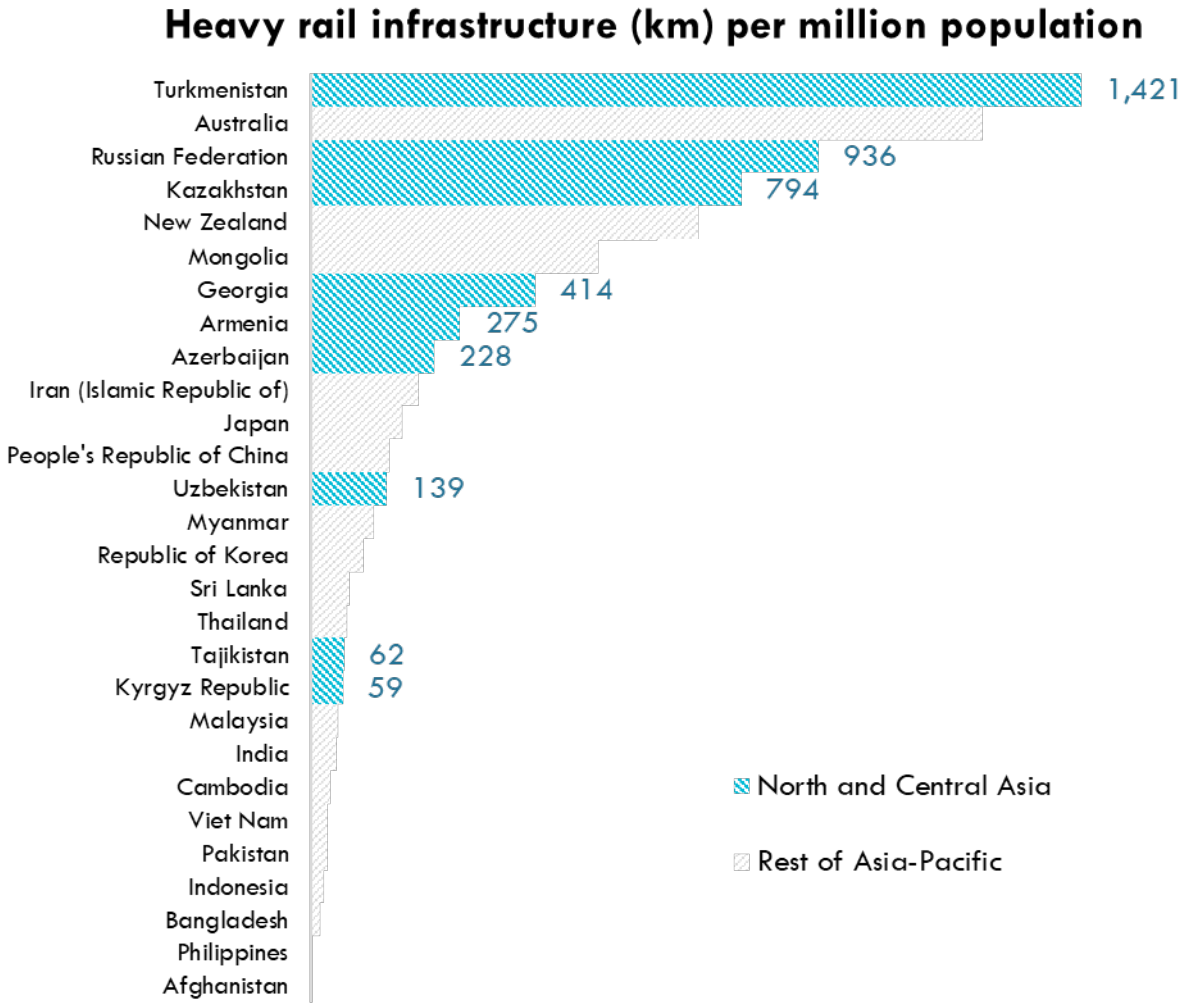
Remoteness Index - Transport connectivity and Digital Connectivity in the North and Central Asian countries



Source: (UN-DESA n.d.)

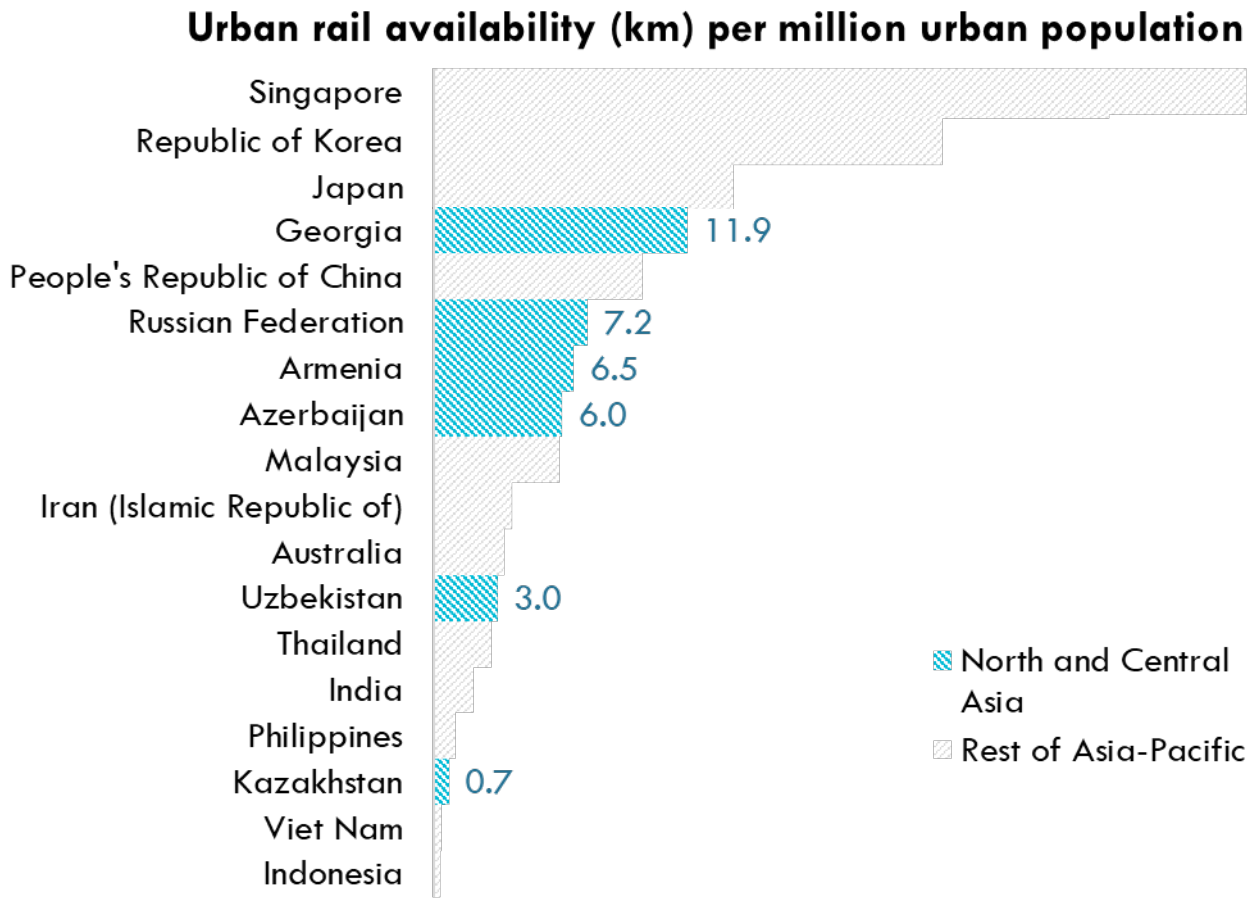
Strong heavy rail expansion, but is it enough?

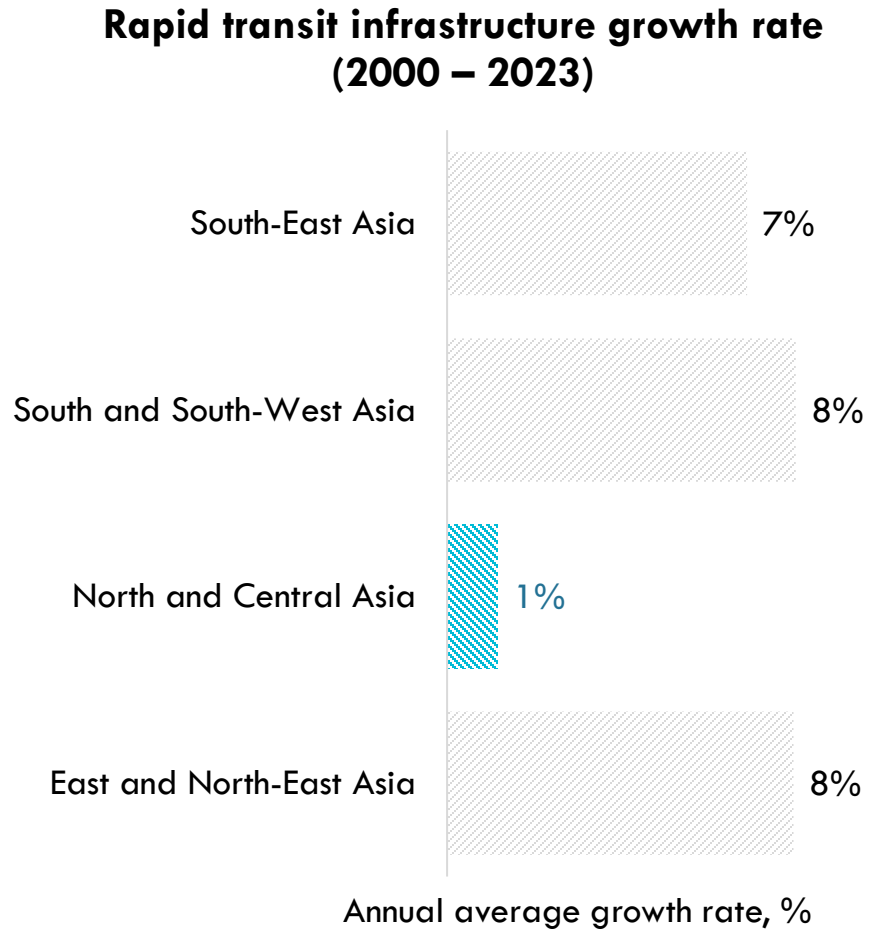




Source: Country official statistics

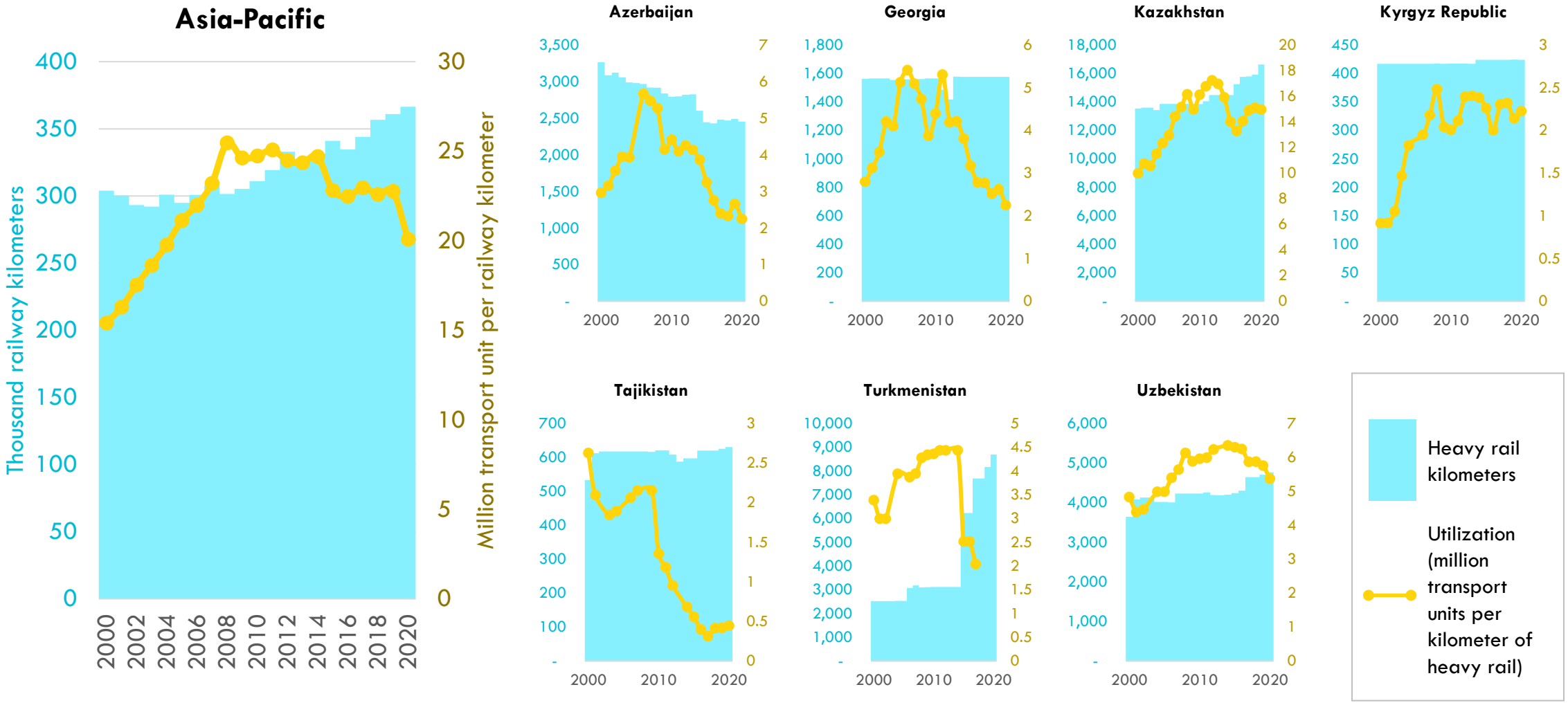
Urban rail infrastructure gap





Source: (ITDP n.d.)

Utilisation misaligned with infrastructure growth



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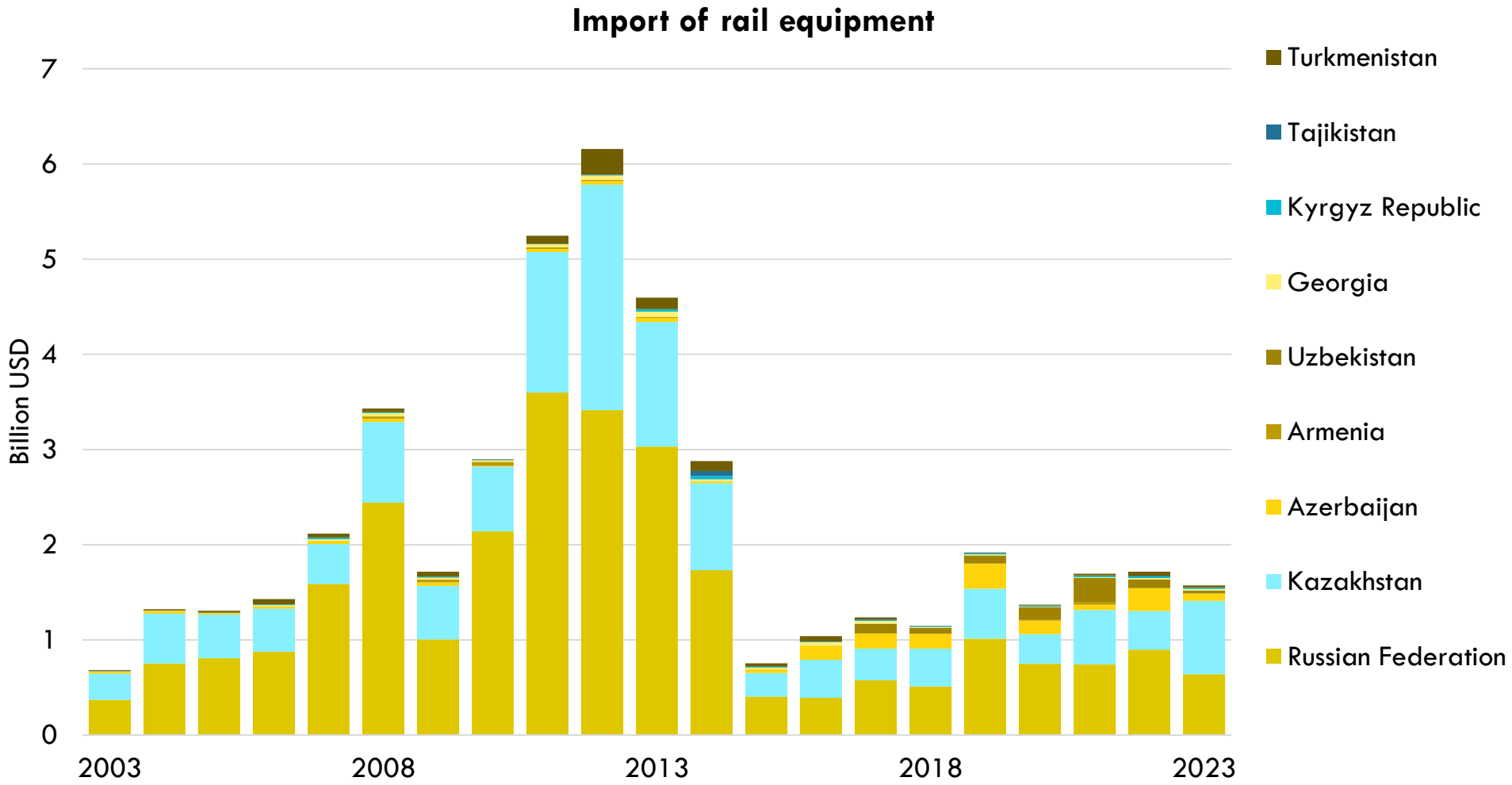
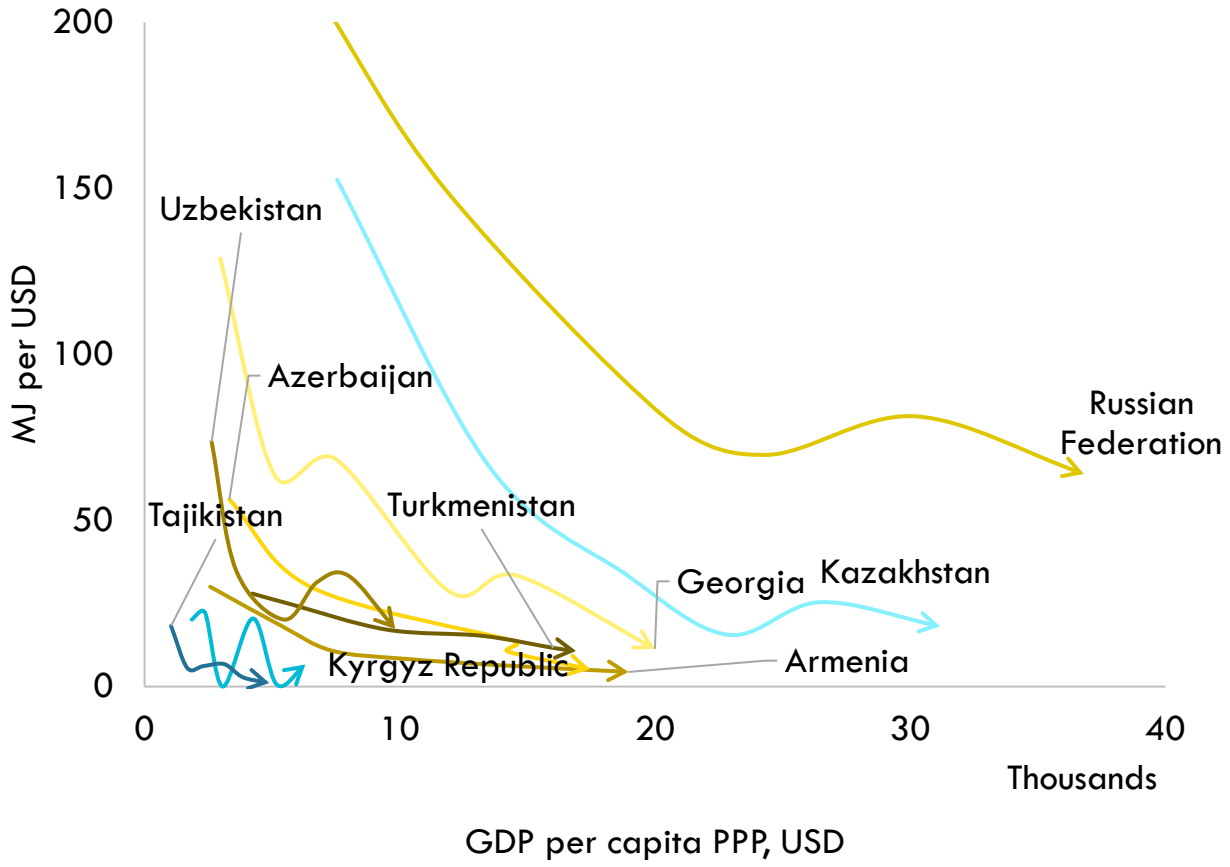
Declining rail equipment import trends



Source: (International Trade Centre n.d.)

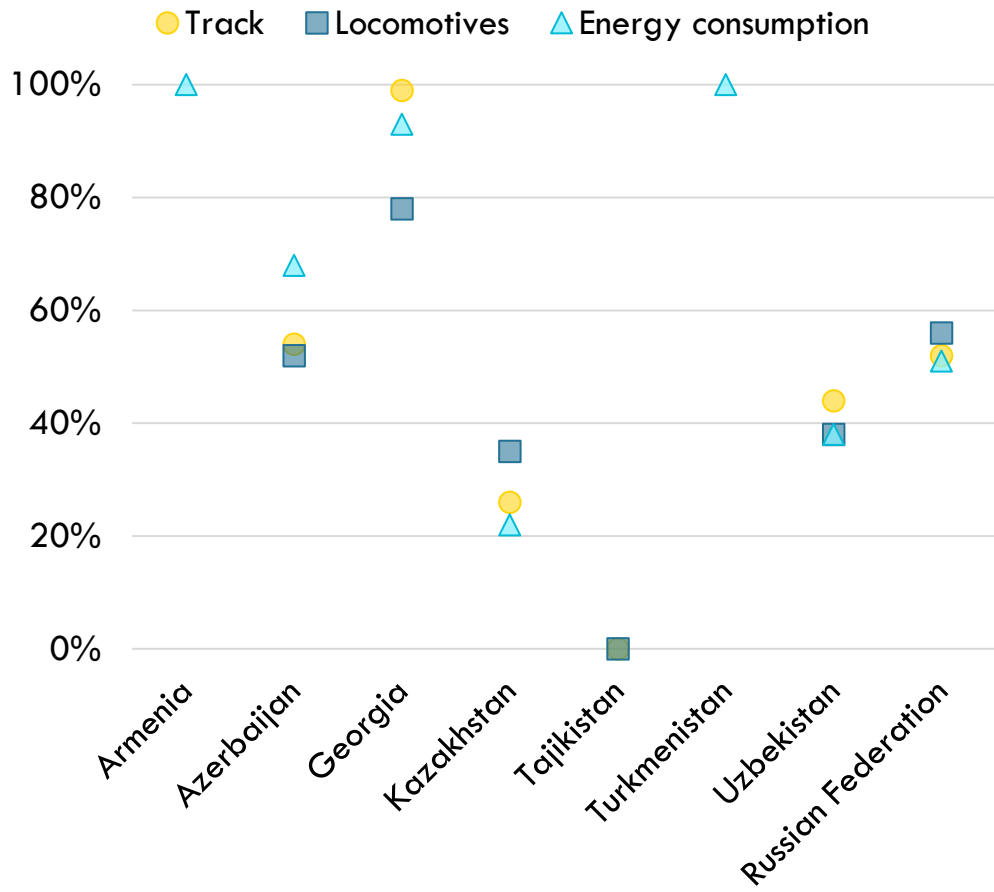
Efficiency improves, electricity transition uneven

Rail energy consumption intensity, 2000-2022



Source: (United Nations Statistics Division 2024)

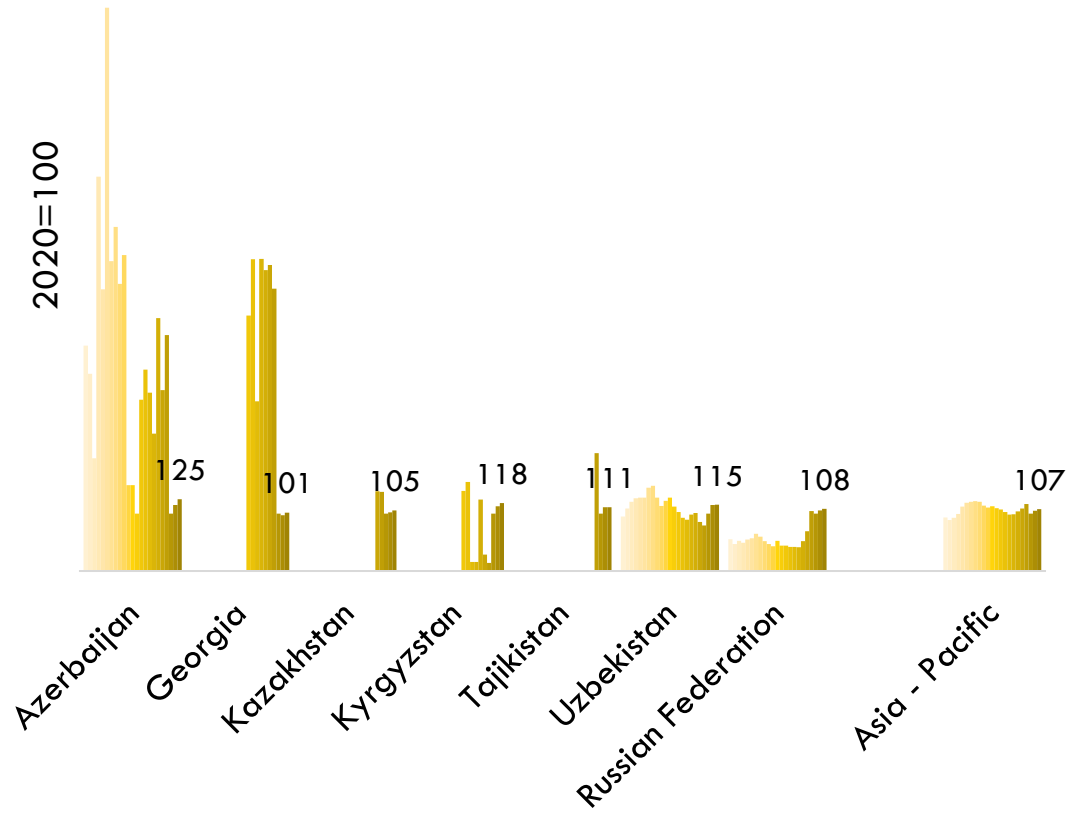
Electrification trends



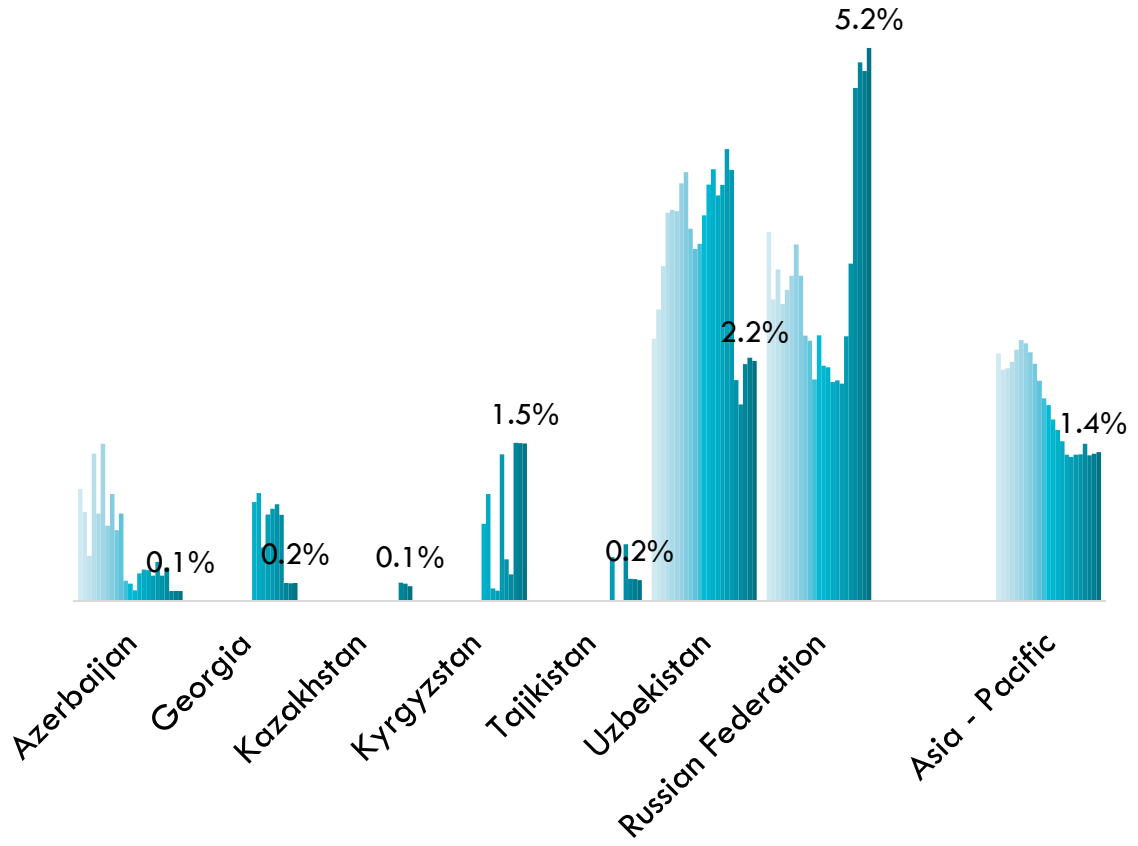
Source: (OSJD 2024) (United Nations Statistics Division 2024)

Railways – potential backbone for transport decarbonisation

Rail CO2 emissions trend (2000 - 2022)

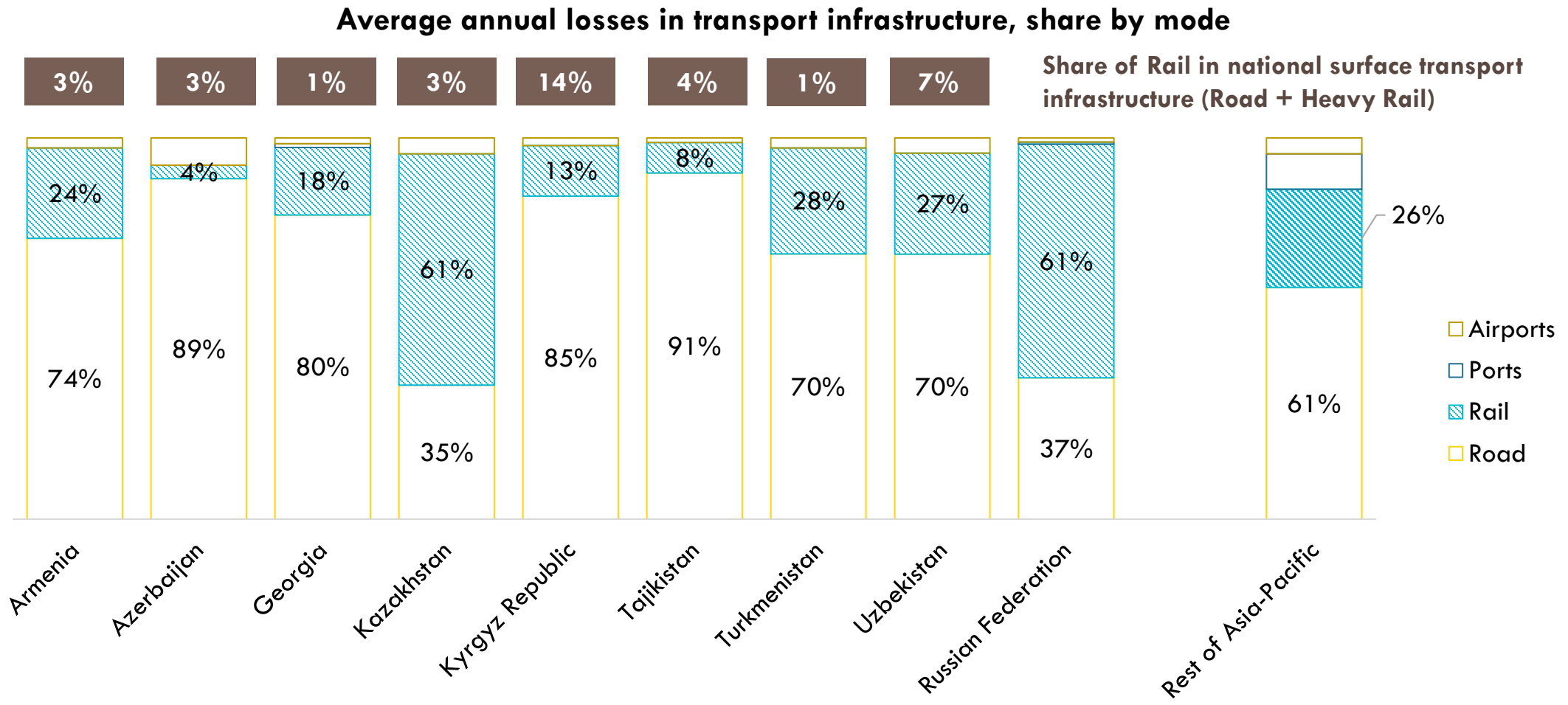


Share of Rail in Total transport CO2 emissions (2000 – 2022)



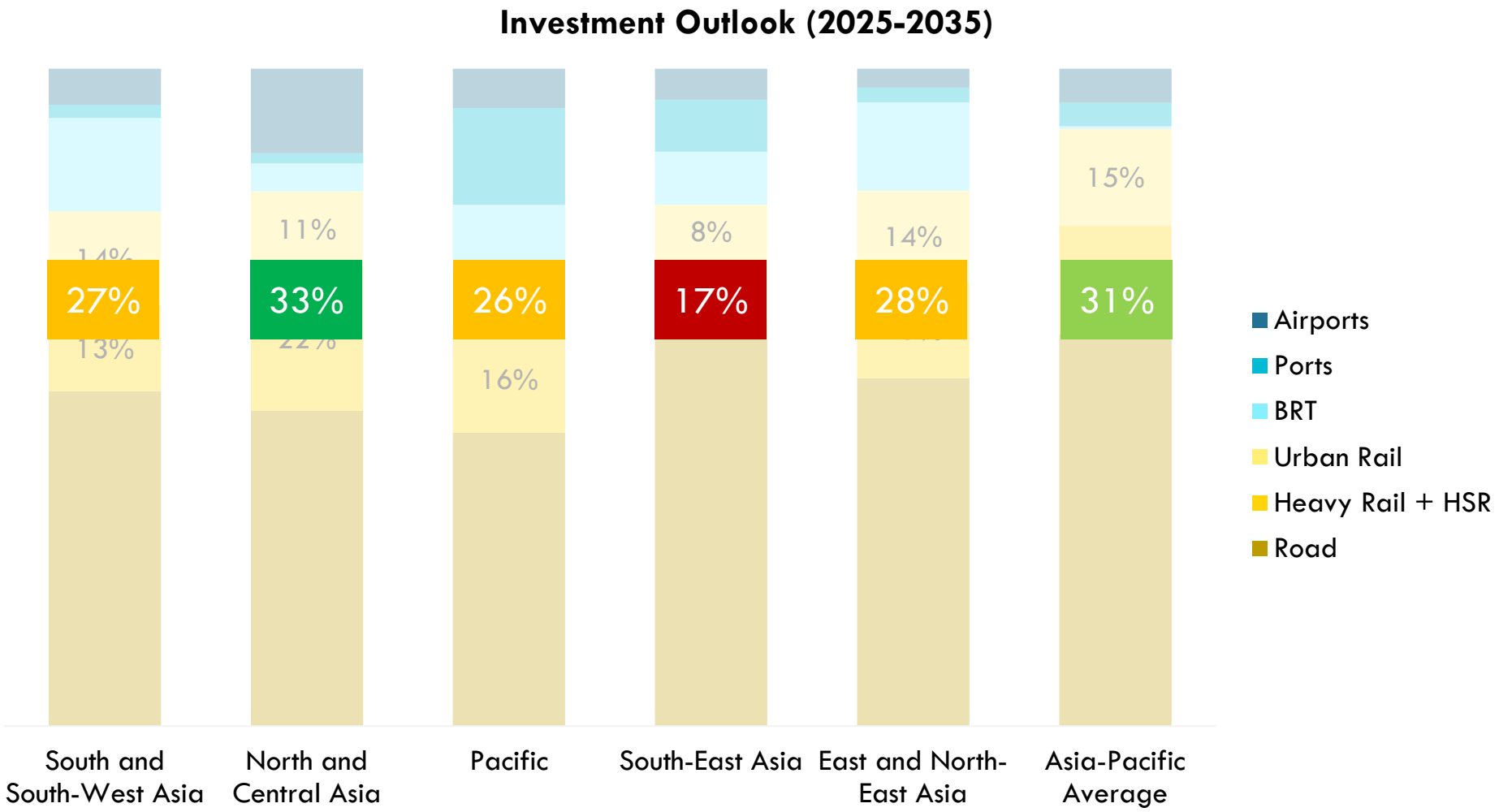
Source: EDGAR

Rail bears disproportionate climate change burden

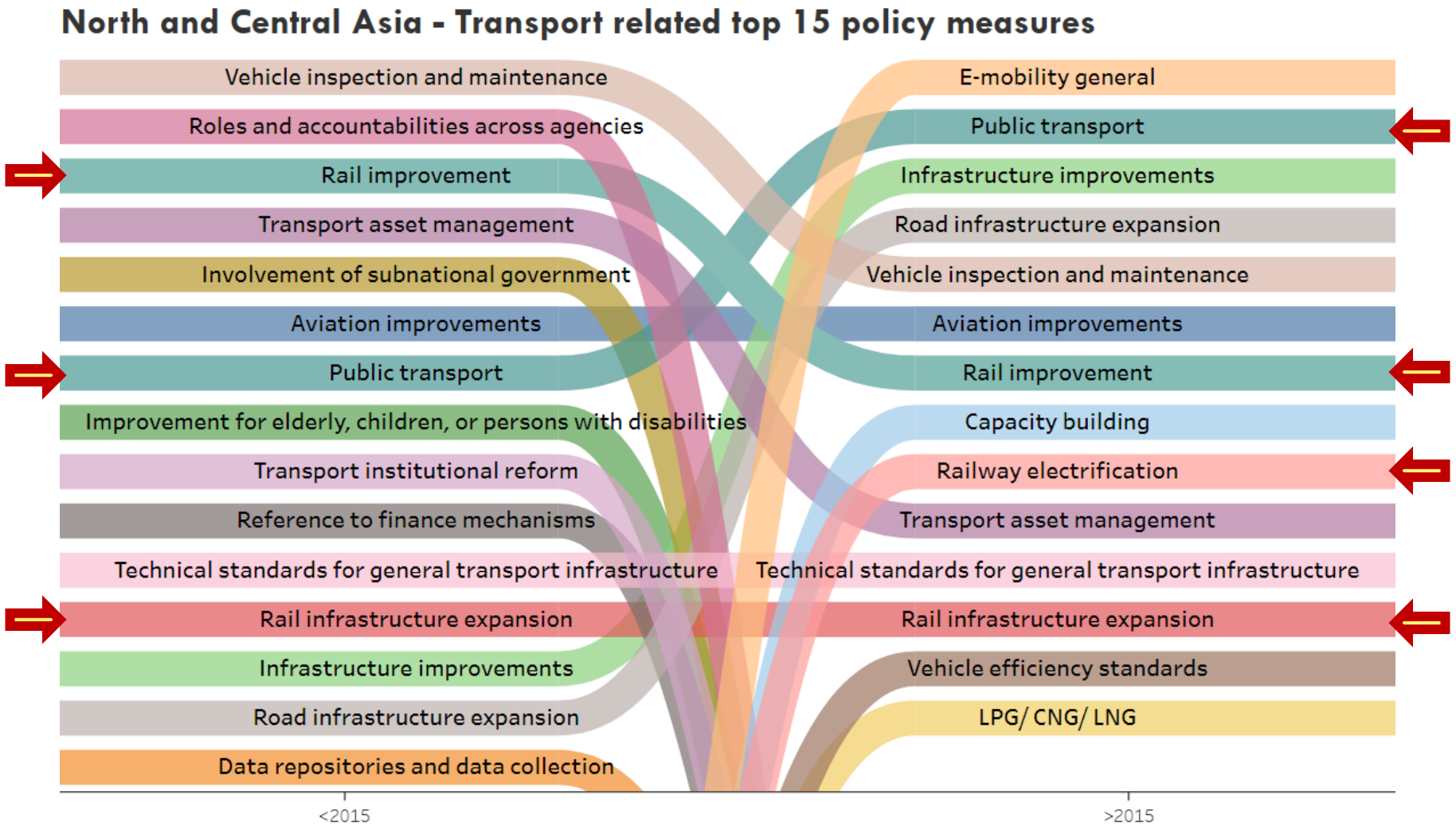


Source: (CDRI n.d.)

Investment outlook indicates a silver lining

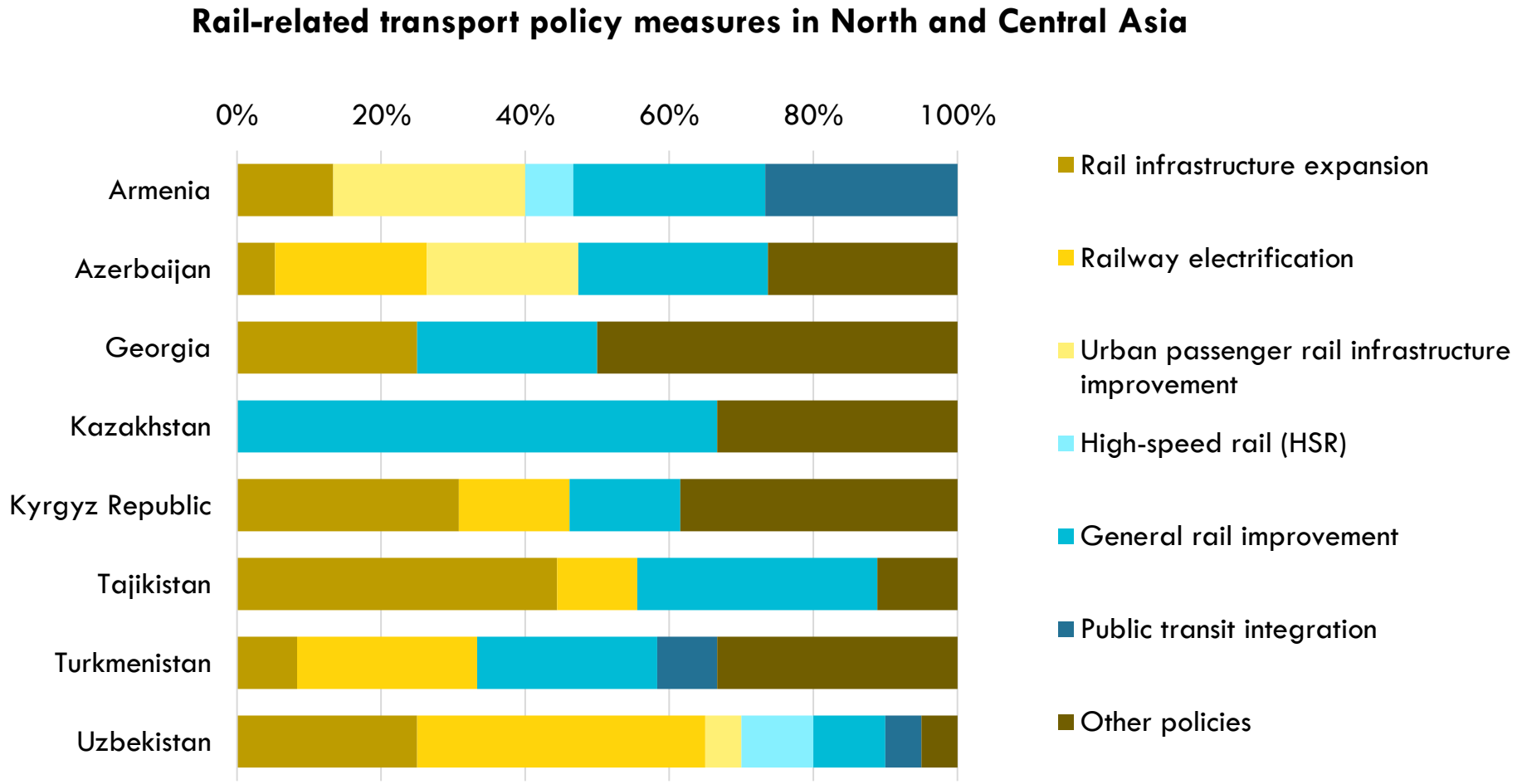


Transport policy landscape – mixed news



Source: ATO National Policy Tracker

Diversity of rail policy measures



In Summary

1. North and Central Asia's rail sector is growing rapidly, but faces key challenges: geography, underutilization, and limited urban connectivity.

2. While efficiency gains and electrification offer a glimpse of potential, progress is inconsistent, and emissions are on the rise.

3. Policy and investment signals are mixed, but with focused action, rail could emerge as a climate-resilient backbone, driving sustainable growth in the region.

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"ATO translates data into insights, policies, and investments"

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