



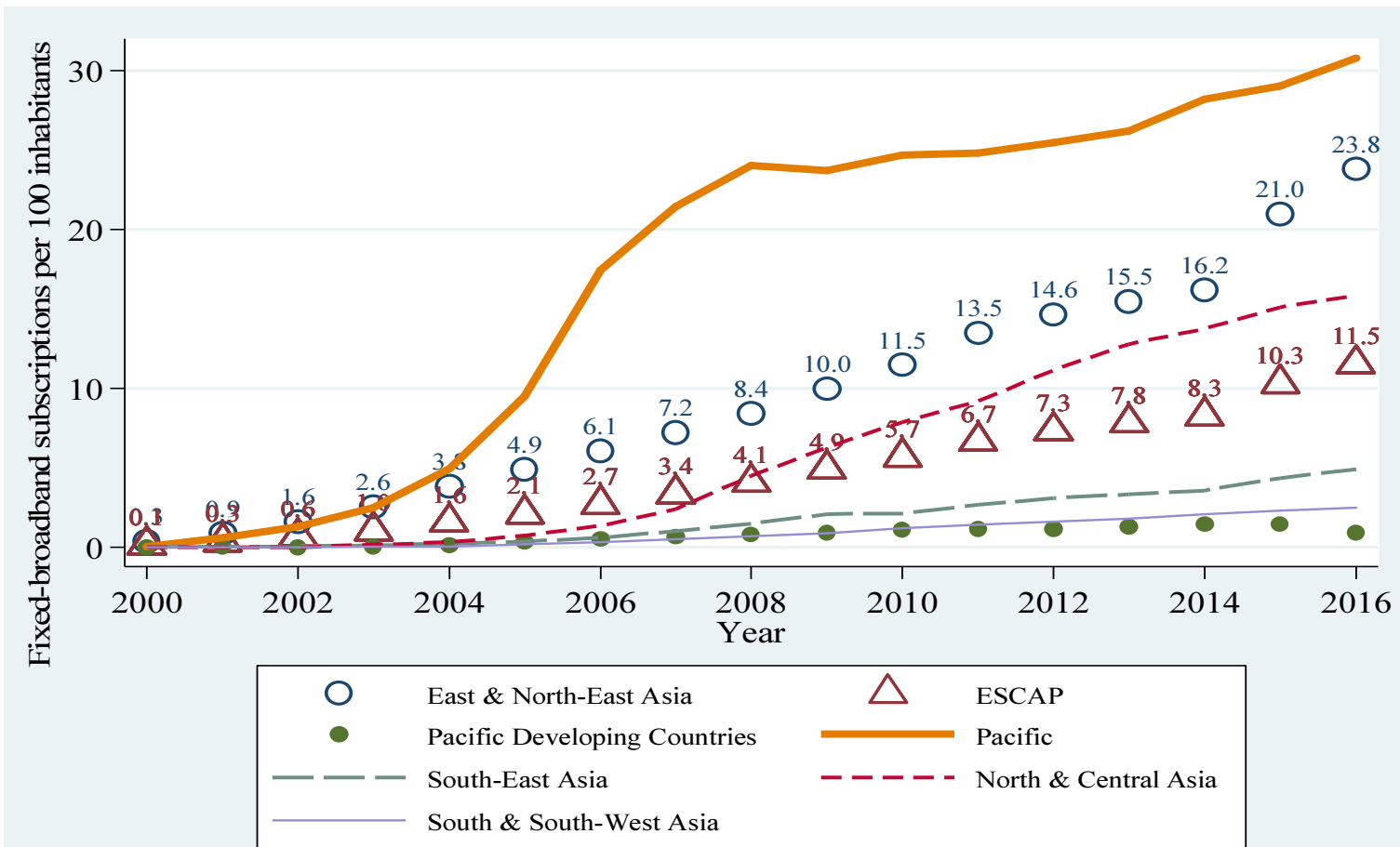
BROADBAND CONNECTIVITY IN NORTH AND CENTRAL ASIA (NCA), EAST AND NORTH-EAST ASIA (ENEA)

ICT and Development Section
ICT and Disaster Risk Reduction Division
Dhaka, Bangladesh, 1-2 November 2017

IMPROVING REGIONAL BROADBAND CONNECTIVITY THROUGH THE
ASIA-PACIFIC INFORMATION SUPERHIGHWAY



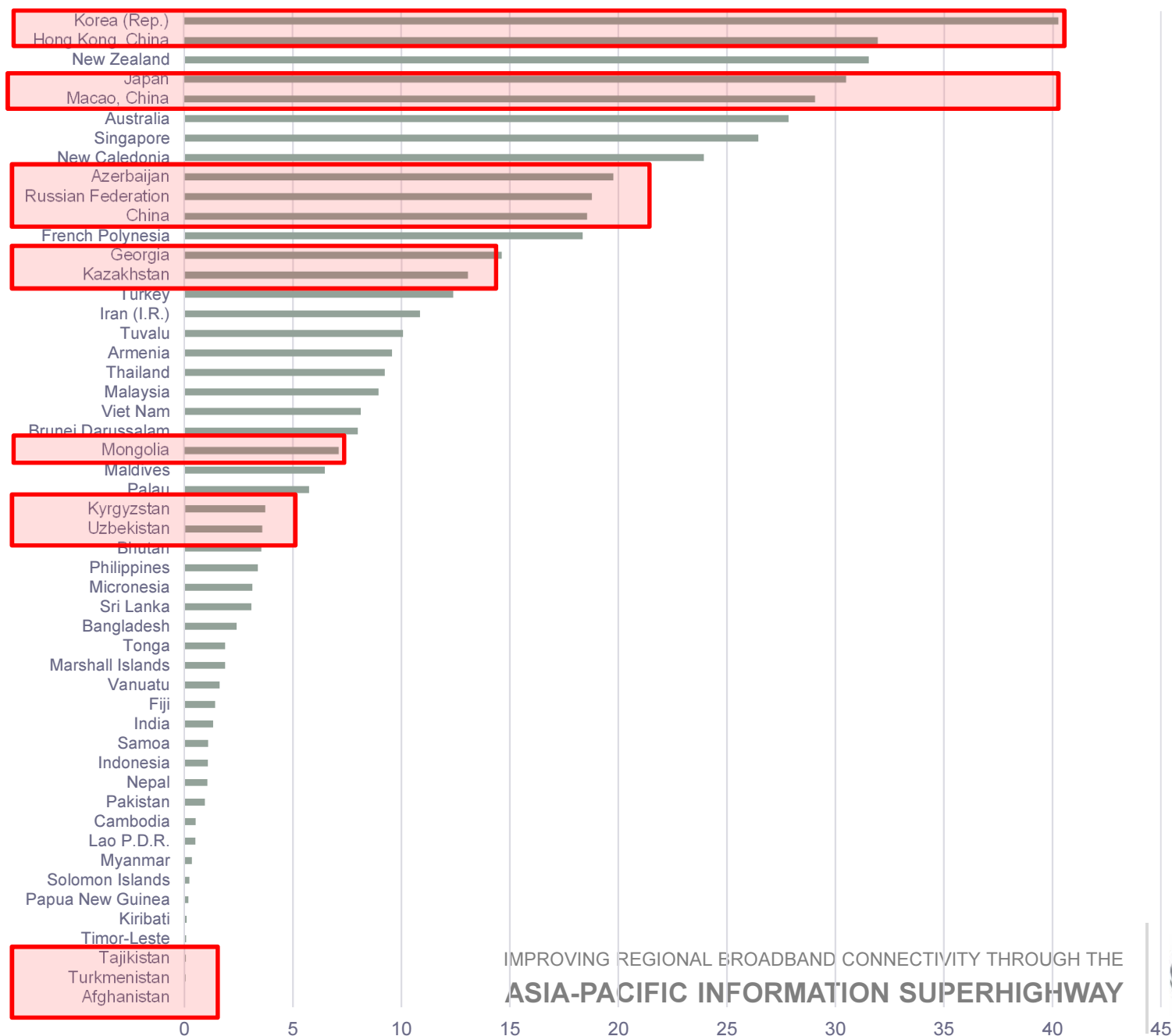
Trends in Fixed-Broadband connectivity



Source: Produced by ESCAP, based on data sourced from ITU World Telecommunications/ICT Indicators Database (2017).



Fixed Broadband Penetration Rates (per 100)

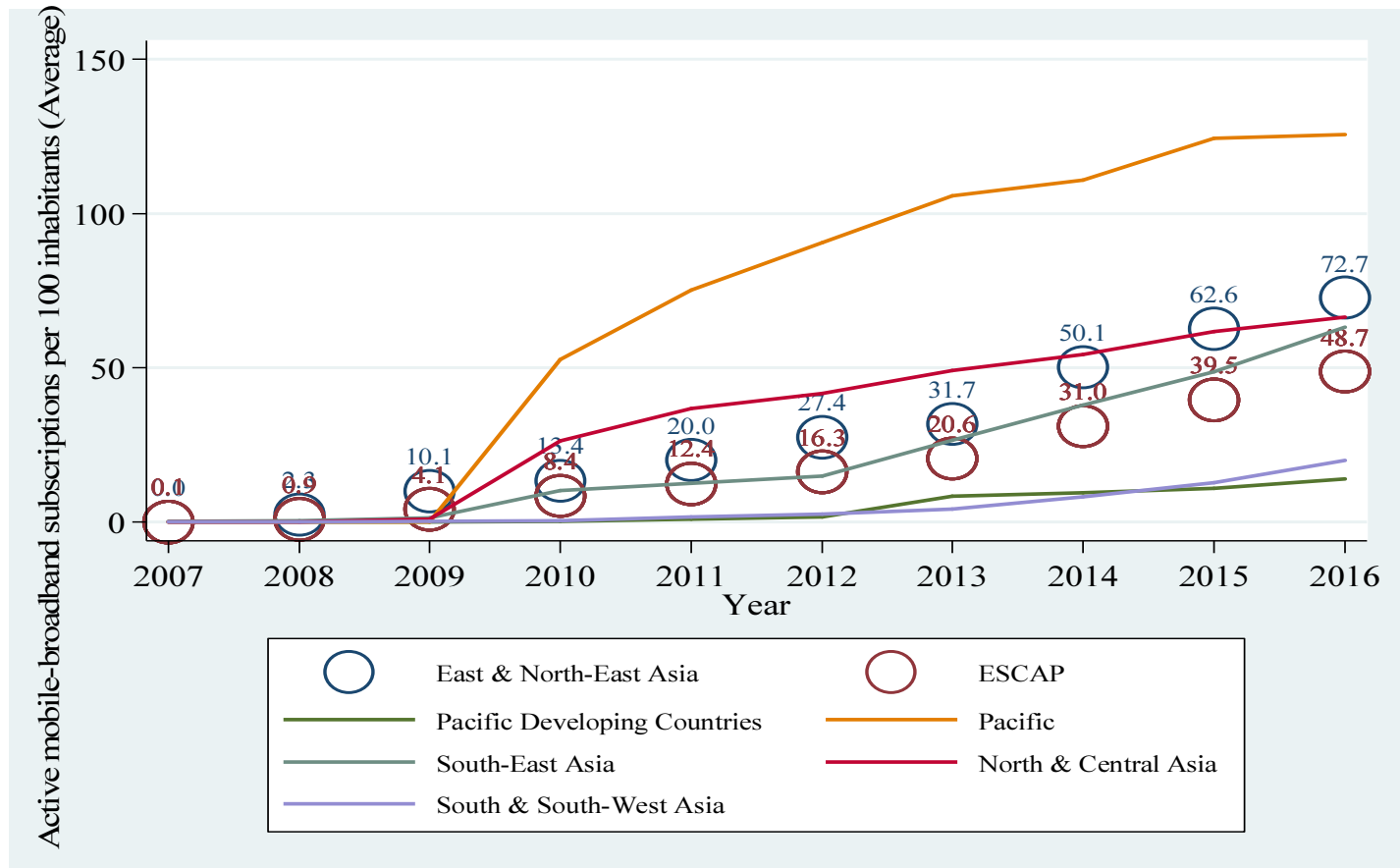


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ASIA-PACIFIC INFORMATION SUPERHIGHWAY



Data source: ITU. (2016). World Telecommunication/ICT Indicators database. Available from: <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

Trends in Mobile- Broadband connectivity

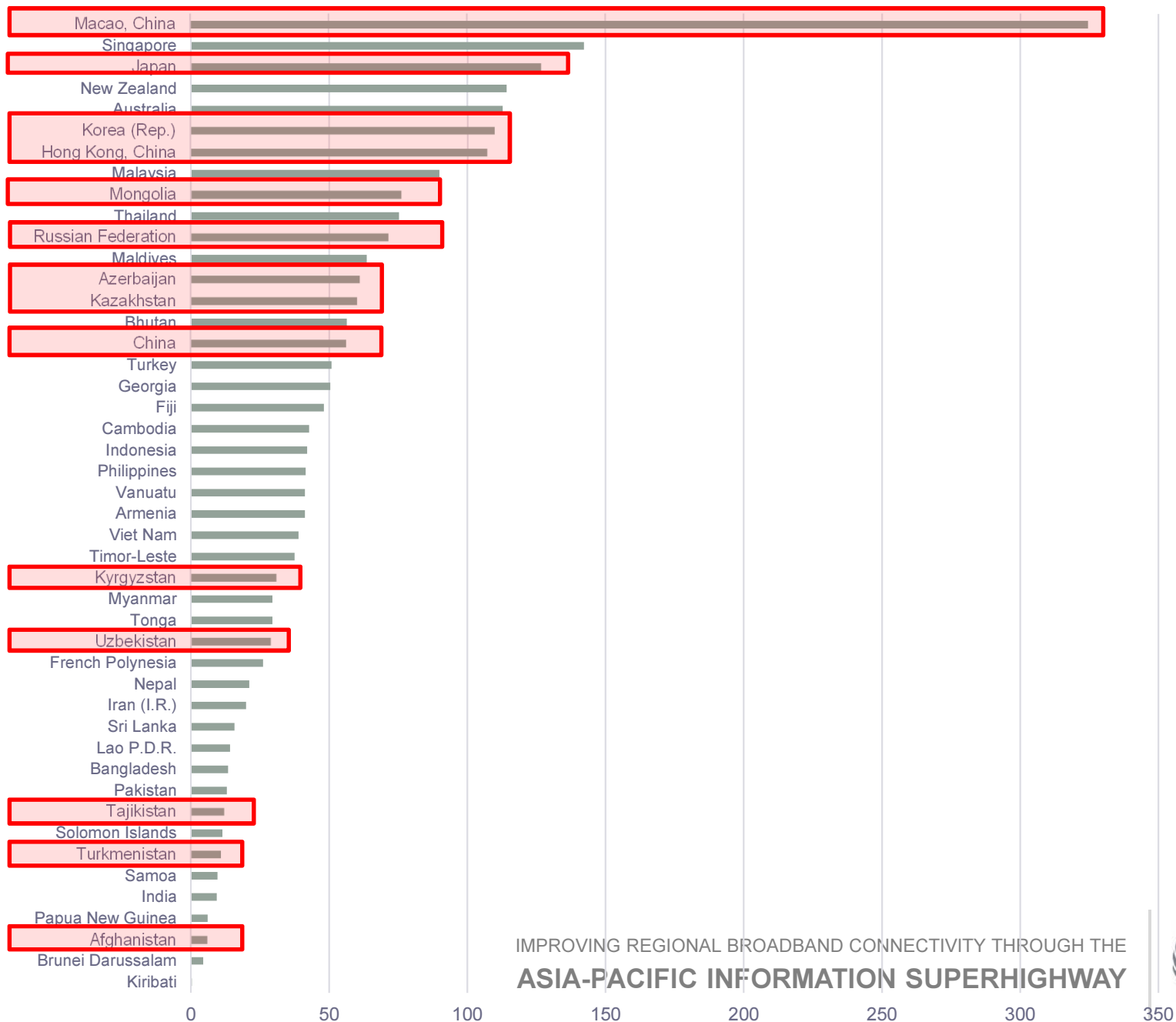


Source: Produced by ESCAP, based on data sourced from ITU World Telecommunications/ICT Indicators Database (2017).

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Mobile Broadband Penetration Rates (per 100)



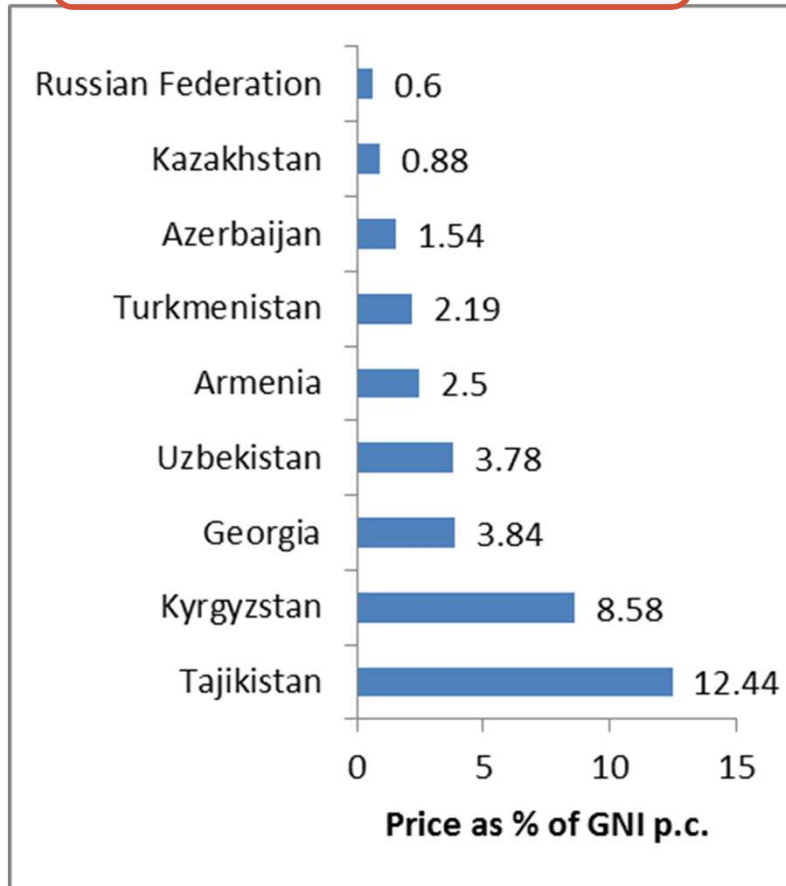
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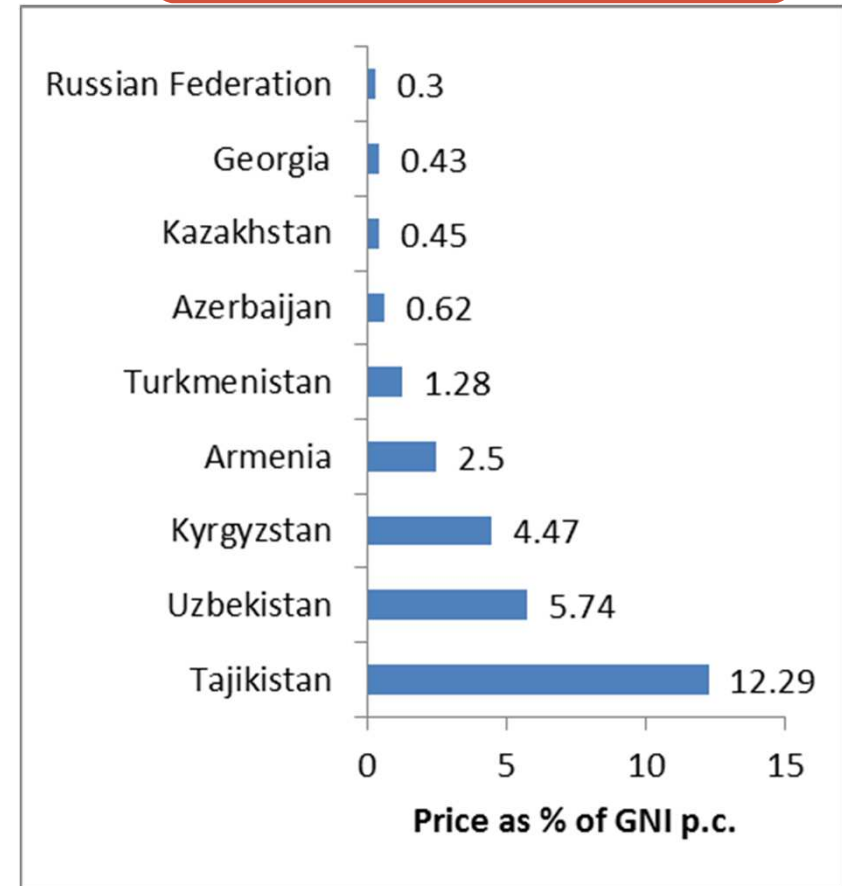
Data source: ITU. (2016). World Telecommunication/ICT Indicators database. Available from: <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

Broadband affordability in NCA

Fixed Broadband



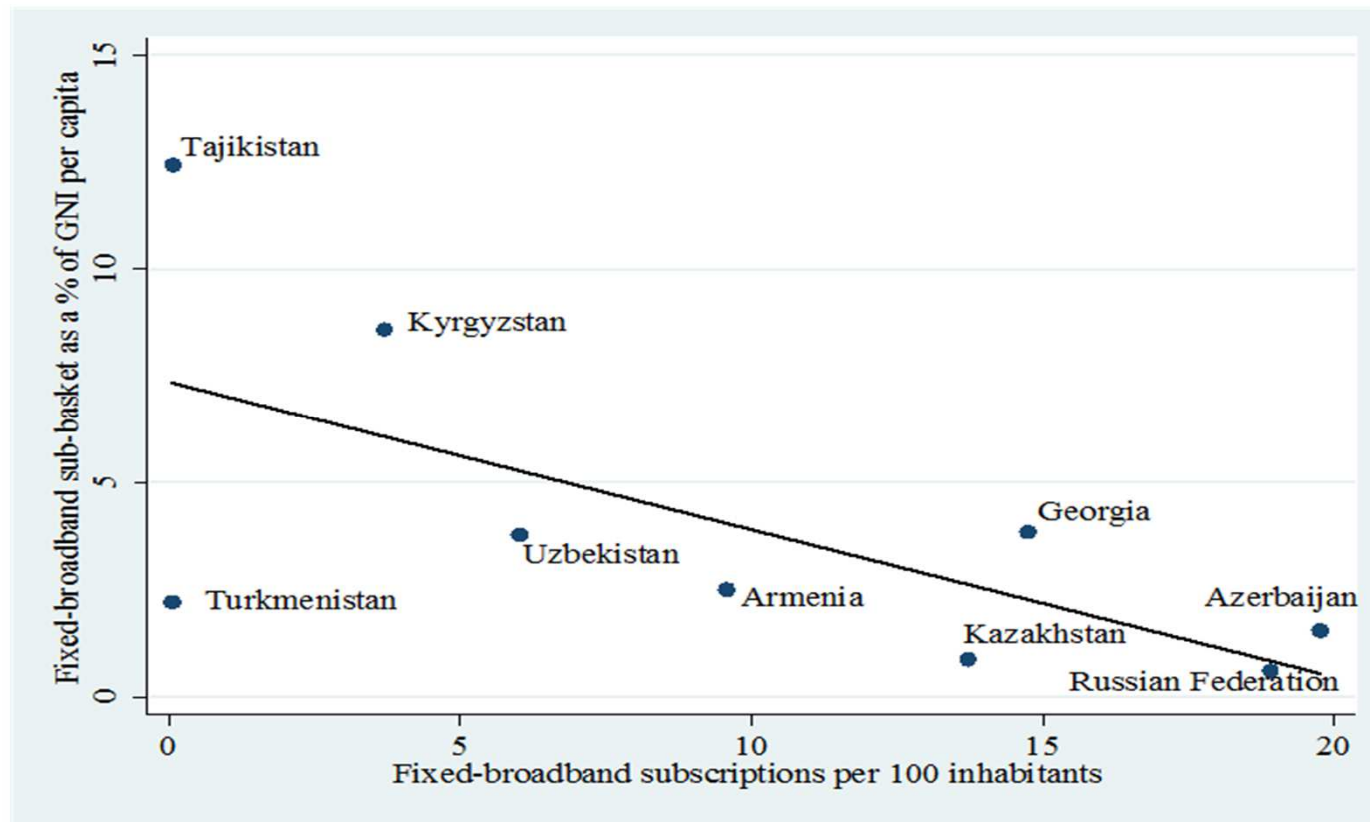
Mobile Broadband



Source : Produced by ESCAP, based on data sourced from ITU Measuring the Information Society Report



Broadband affordability and fixed broadband subscriptions

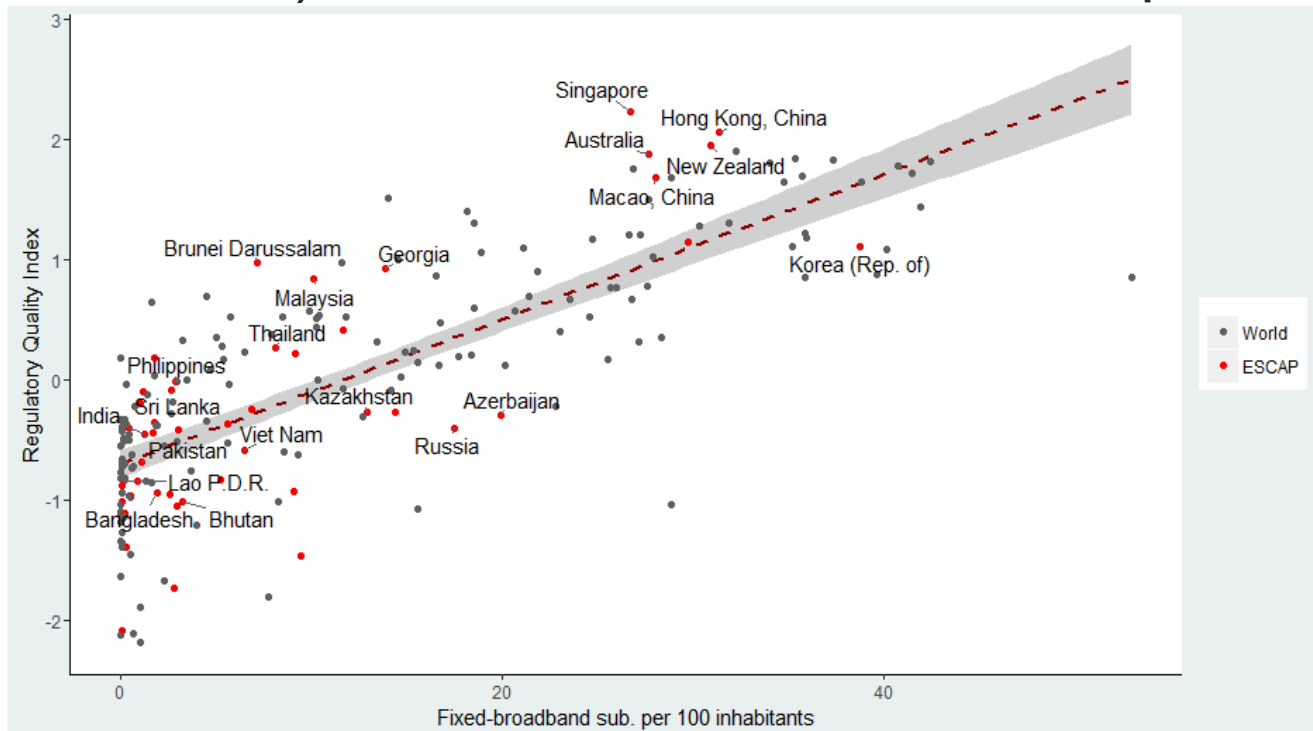


Sources: Produced by ESCAP, based on data sourced from ITU World Telecommunications/ICT Indicators Database



Regulations and Broadband Access

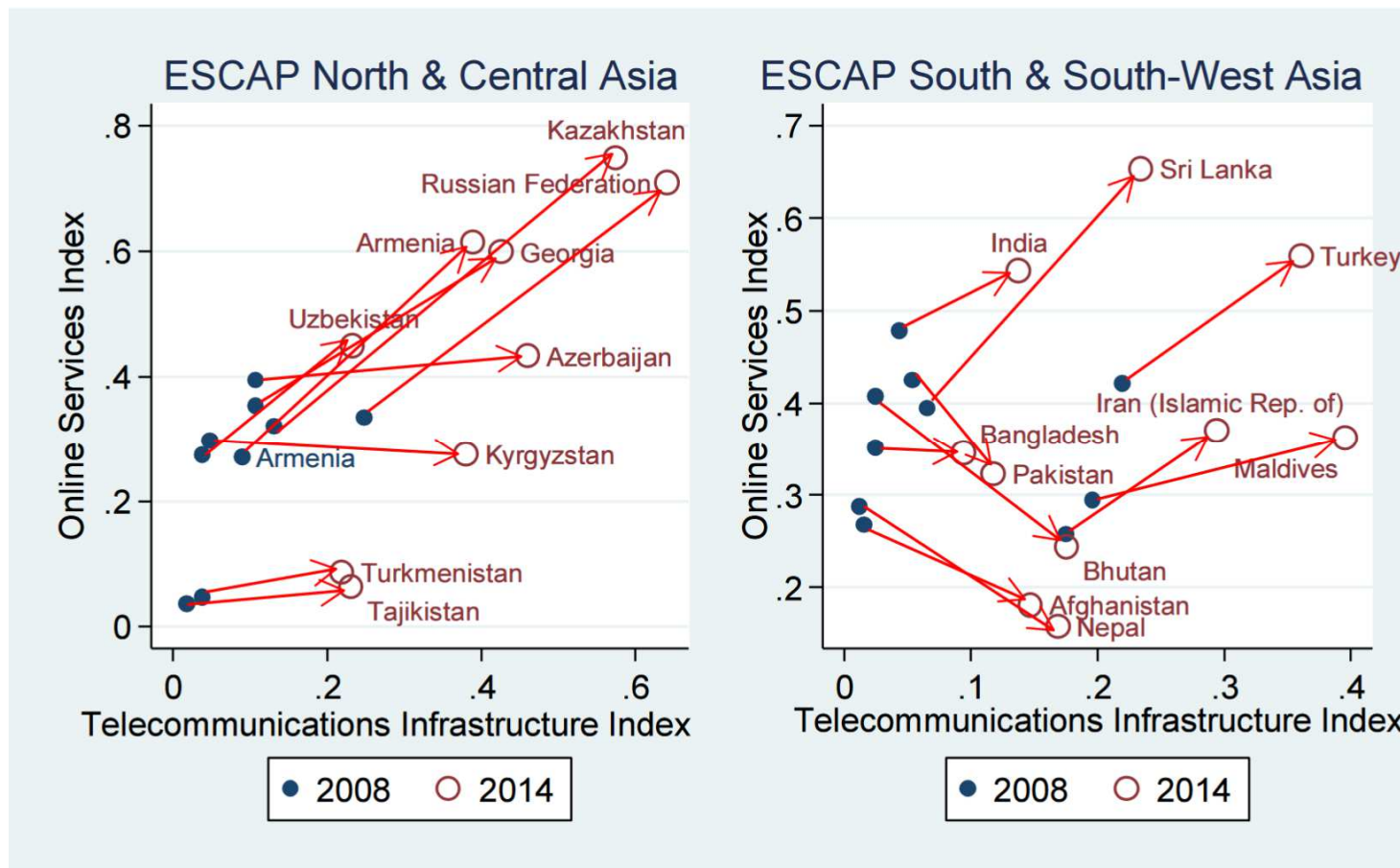
- There is a strong correlation between the perceptions on quality of regulations (World Bank – World Governance Indicators) and fixed-broadband subscriptions.



Better quality of regulation instills certainty in an investment environment, which encourages private operators to invest more.



Online Services & Telecommunications Infrastructure Indices



Source: ESCAP. (2016). The State of ICT in Asia and the Pacific: Uncovering the Widening Broadband Divide.



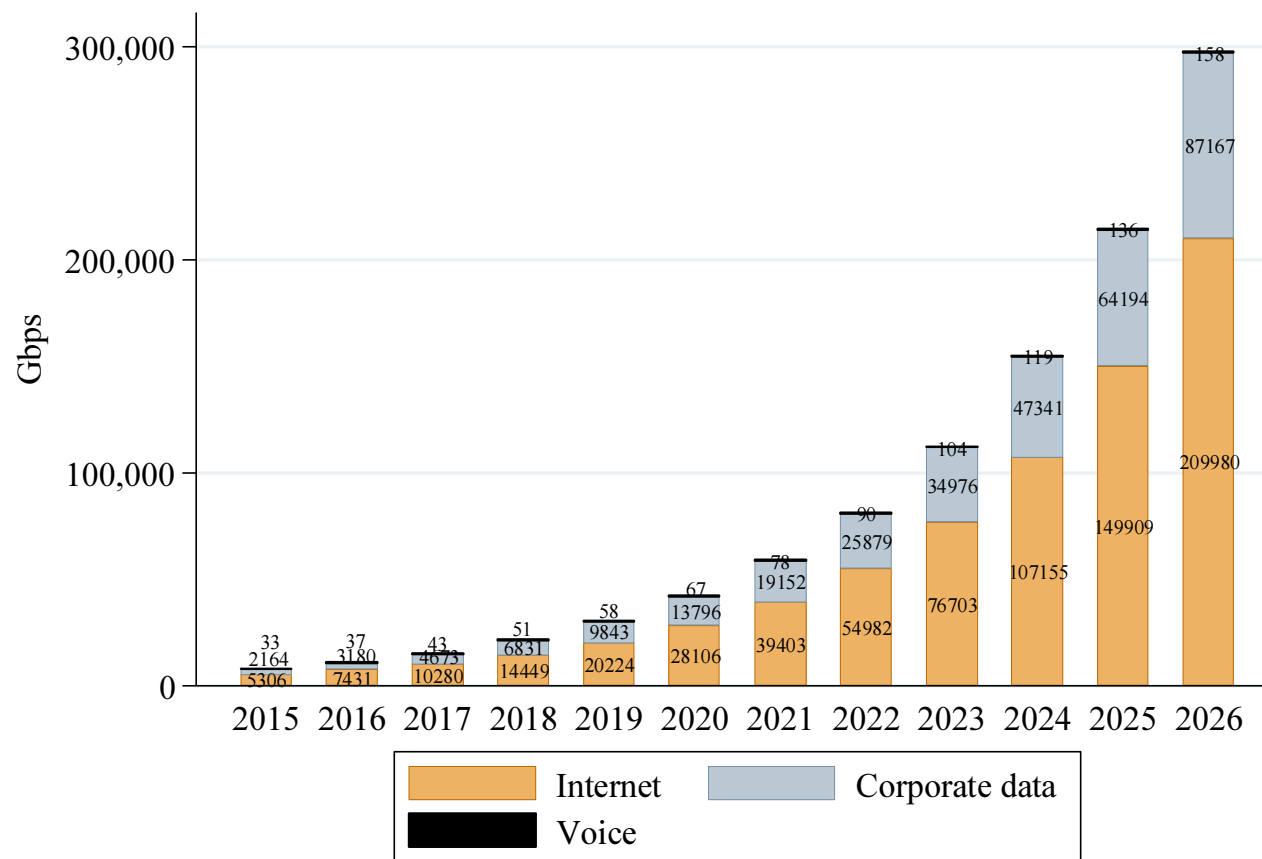
Projected bandwidth demand in NCA

	Projected annual growth 2016-2020	Projected Total growth 2016-2020	Share of corporate data in international bandwidth demand 2016	Share of corporate data in international bandwidth demand 2020	Share of Internet in international bandwidth demand 2016	Share of Internet in international bandwidth demand 2020
Azerbaijan	45.7%	+350.2%	11.3%	12.5%	88.7%	87.4%
Kazakhstan	49.6%	+399.5%	16.6%	16.7%	83.2%	83.3%
Kyrgyzstan	51.4%	+423.3%	2.2%	5.1%	97.8%	94.9%
Russian Federation	38.0%	+263.1%	34.5%	40.2%	65.2%	59.6%
Tajikistan	102.5%	+1562.5%	12.5%	8.3%	87.5%	91.7%
Turkmenistan	132.7%	+2700.0%	7.5%	8.9%	75.0%	91.1%
Uzbekistan	57.5%	+508.0%	8.0%	11.5%	88.0%	86.1%
Region	40.9%	+294.1%	29.9%	32.9%	69.8%	67.0%

Source: ESCAP, “Updated Analysis of the Broadband Infrastructure in Asia Pacific”, 2016.



Forecasted international bandwidth in NCA– 2015-2026



Broadband Drivers in developed country(Korea, Japan)

Consistent & Strong Policies

- Government set up goal, directions, implementation frameworks and financing methods critical to the development of national ICT infrastructure.
- Take part in all processes of developing national infrastructure as a control tower from planning to implementation

Stimulating the participation from the private sector

- Initial demand generation and a rapid expansion of informatization in the public sector.
- Funding via Public-Private Partnership (PPP), especially in rural area.
- well-balanced virtuous cycle between supply-side and demand-generating policies

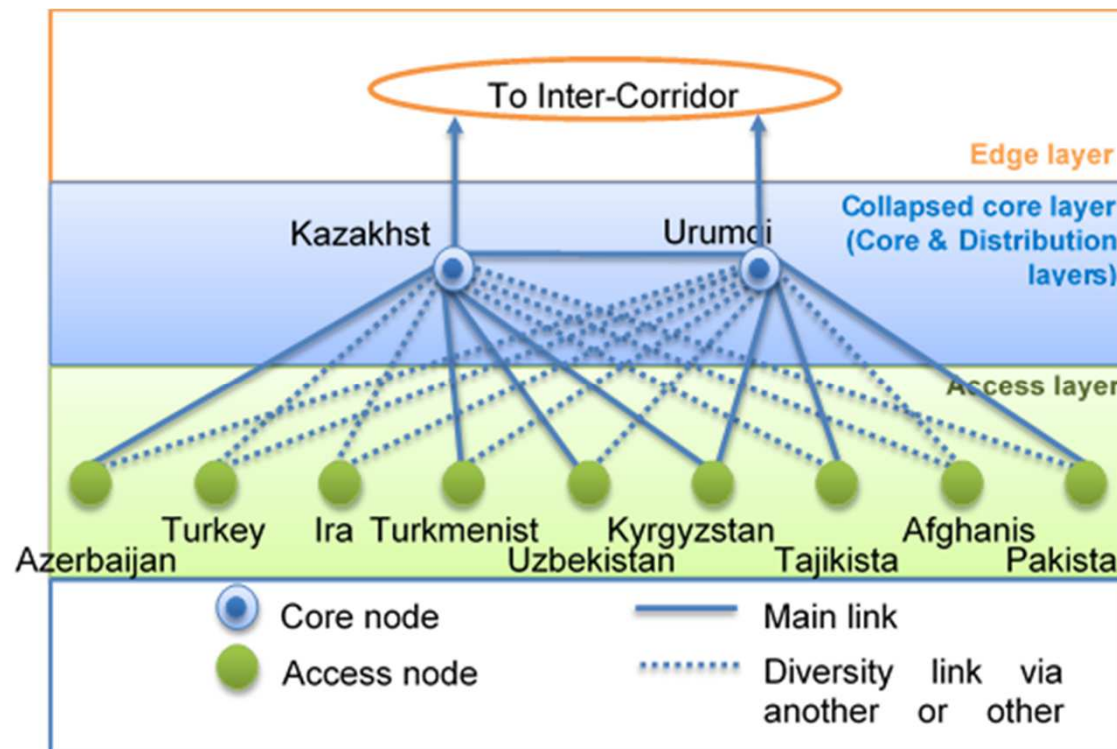
Promoting Market competitions

- Encouraged market competition using liberalizing market entry
- Ease entry restriction for new entrants and to formulate an environment for fair competition, such as enhancing regulation on Interconnection and Infrastructure sharing



A Study on the Belt and Road initiative to connect China and Central Asia

Logical Network Topology in China-Central Asia

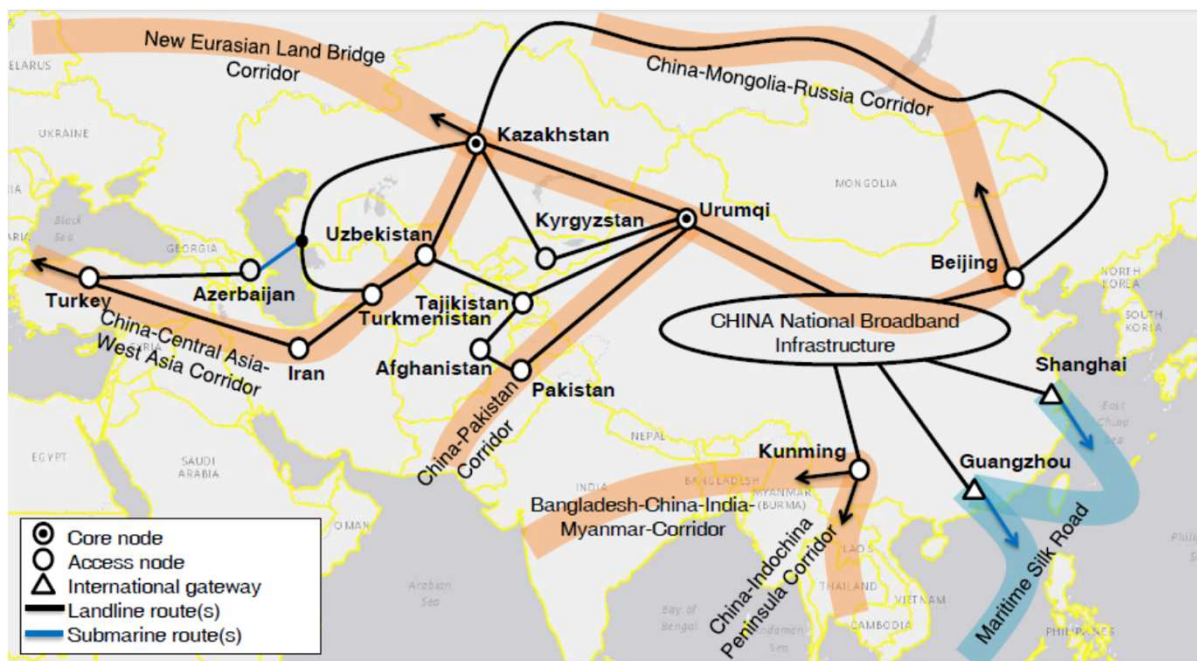


To connect countries along the Belt and Road, Kazakhstan and Urumqi are selected to be the core nodes for both intra- and inter-corridor connectivity, because of their strong international connectivity



A Study on the Belt and Road initiative to connect China and Central Asia

Physical Network Topology in China-Central Asia



Two cross-border fibre-optic routes in this topology are not currently present

- Pakistan-Urumqi
- Azerbaijan-Kazakhstan.

