



Regional Broadband Backbone Networks for Asia-Pacific Information Superhighway

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The ICTs Connectivity challenge in Asia Pacific

- *Growing need for Internet connectivity of devices & things* – particularly with **convergence of technologies, emergence of the “Internet of Things” (IoT), and growing ICT applications**. E.g., intelligent transport systems (ITS).
- Experts predict exponential growth in demand for broadband capacity (bandwidth), with the increased demand for online content, video
- Lack of **regional coordination in fibre optic network deployment** result in poorly interconnected terrestrial networks. National transmission systems dominated by few submarine connections resulting in:
 - Lack of competition, key transmission infrastructure controlled by incumbent operators leading to high prices
 - Poor network redundancy, poor resilience (Myanmar traffic affected by problem on link with Thailand on August 14)



Asia-Pacific Information Superhighway

- AP has largest gaps in terms of broadband connectivity
- Landlocked countries facing particularly high prices for backhaul
- ESCAP has history of being a discussion platform for agreements on Pan-Asian infrastructure treaties (Asian Highway, Trans-Asian Railway, dry ports)
- ESCAP currently working on identifying missing links in transmission networks to lower prices, increase redundancy and reliability
- Mapping transmission networks, in cooperation with ITU, overlay with transport networks
- Analyse other causes for unfinished connectivity (regulatory framework)
- Will propose solutions towards closing the gaps



Addressing the digital divide –Asia-Pacific Information Superhighway

- ESCAP carried out in-depth subregional studies on the broadband infrastructure to explore causes of digital divide
- ESCAP has identified a number of high priority investments in terrestrial fibre optic cables to diversify routes and enhance market competitiveness
- Also reviewed existing connecting infrastructure by creating maps of transmission infrastructure
- ESCAP analysis shows Asian LLDCs face higher connectivity prices, due to transit fees applied by transit countries (at least 20%, sometimes far more)



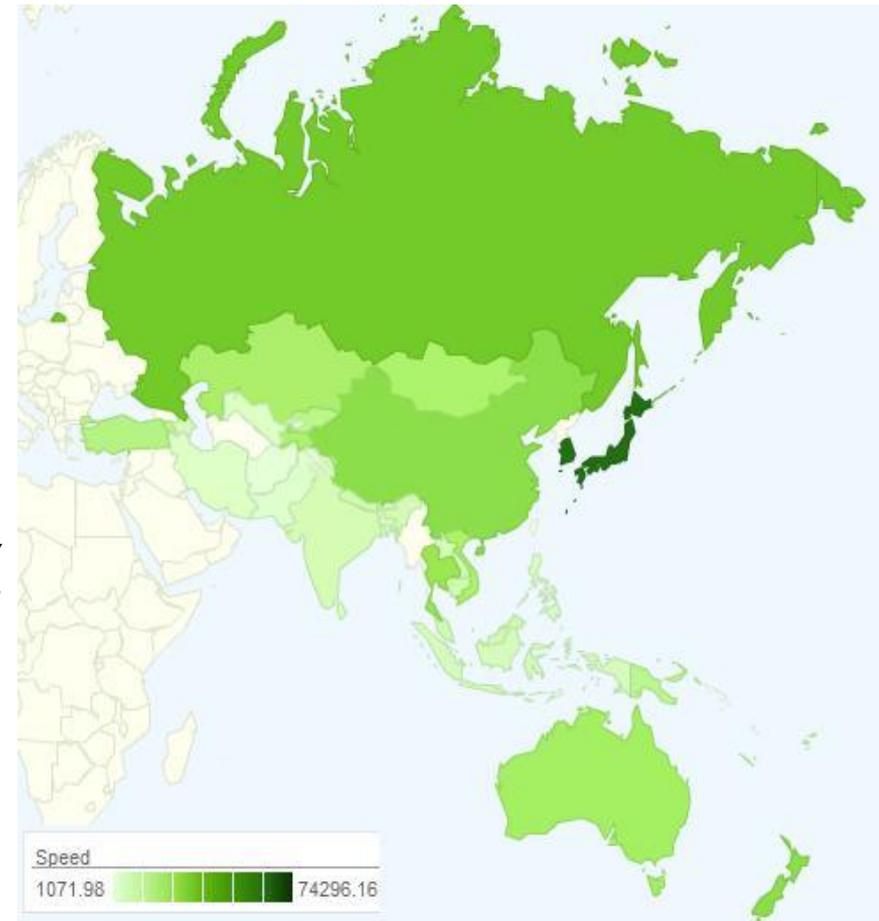
ESCAP-ITU Asia-Pacific Information Superhighway Map





Physical Infrastructure Investment Needed

- Industry projections estimate that telecom networks should grow by approx. 400% over the next 5 years (*CISCO VNI*).
- Many countries do not show this level of investment, which will make the digital divide more pronounced with the passing of time.
- Currently “*backhaul networks are poorly meshed and follow a “river system” pattern whereby networks spread from submarine landing stations thinning out into countries’ hinterlands* (OECD).
- This results in **insufficient terrestrial connectivity**, limits competition



Delivered download speed (Mbps, speedtest 2014)



<http://www.itu.int/itu-d/tnd-map-public/>

**ITU Interactive Transmission Map
Public version**



Committed to connecting the world

Welcome to the ITU Interactive Transmission Map. Select map layers below and navigate using the icons in the map window.

For help using this application please refer to the Sources & Help section below.

Alternatively, visit the [Google Earth - 3D version](#)

Full details regarding the sources for the data are available via the [TIES version](#). To register for the TIES version please [click here](#)

Base Layer

- UN Map
- Natural Earth
- Population density

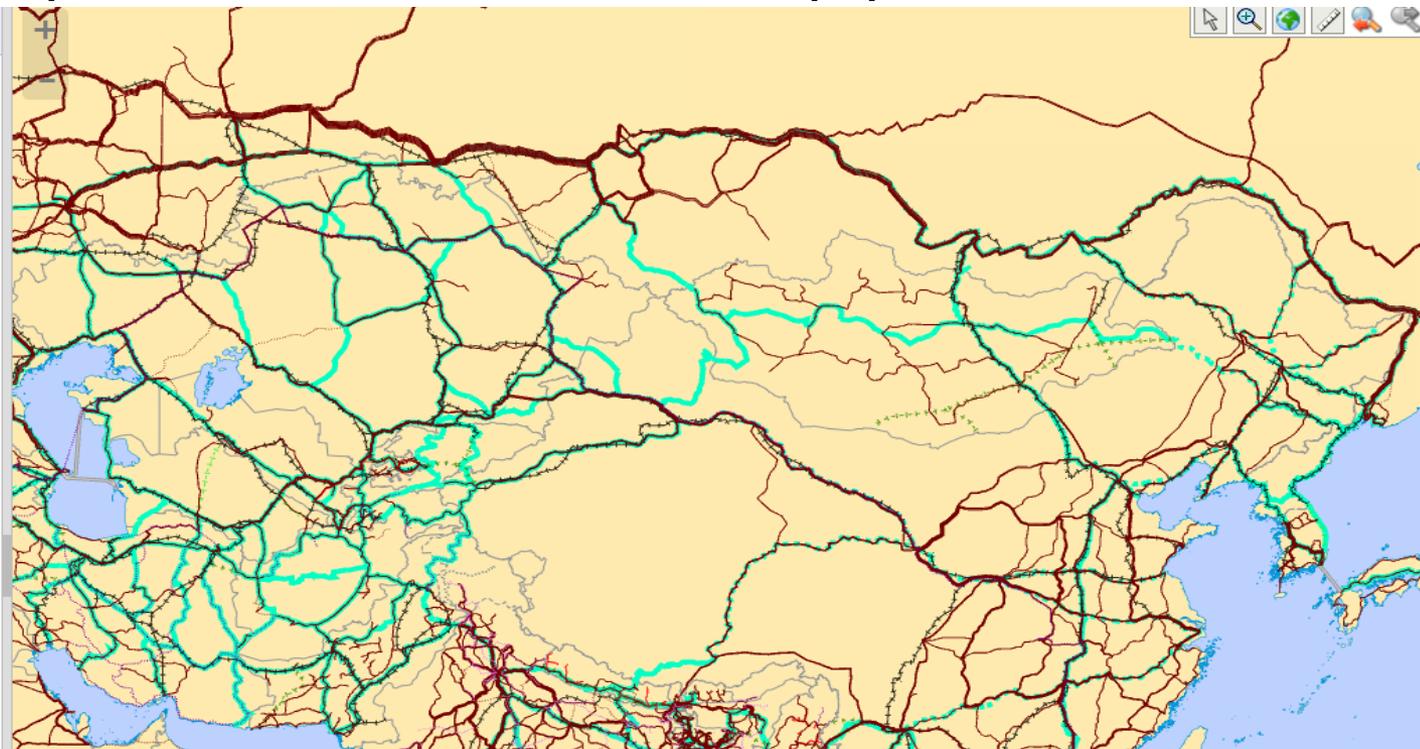
Overlays

- Range to Nodes
- Asian Highway
- Trans-Asian Railway
- World Transmission Links
- Submarine Cables

Satellite Earth stations: available under the [TIES version](#)

Line data

Measure distances on the map using the



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_4120

