



Regional Broadband Backbone Networks for Asia-Pacific Information Superhighway

Shamika Sirimanne

Director

Information and Communications Technology
and Disaster Risk Reduction Division

UNESCAP



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

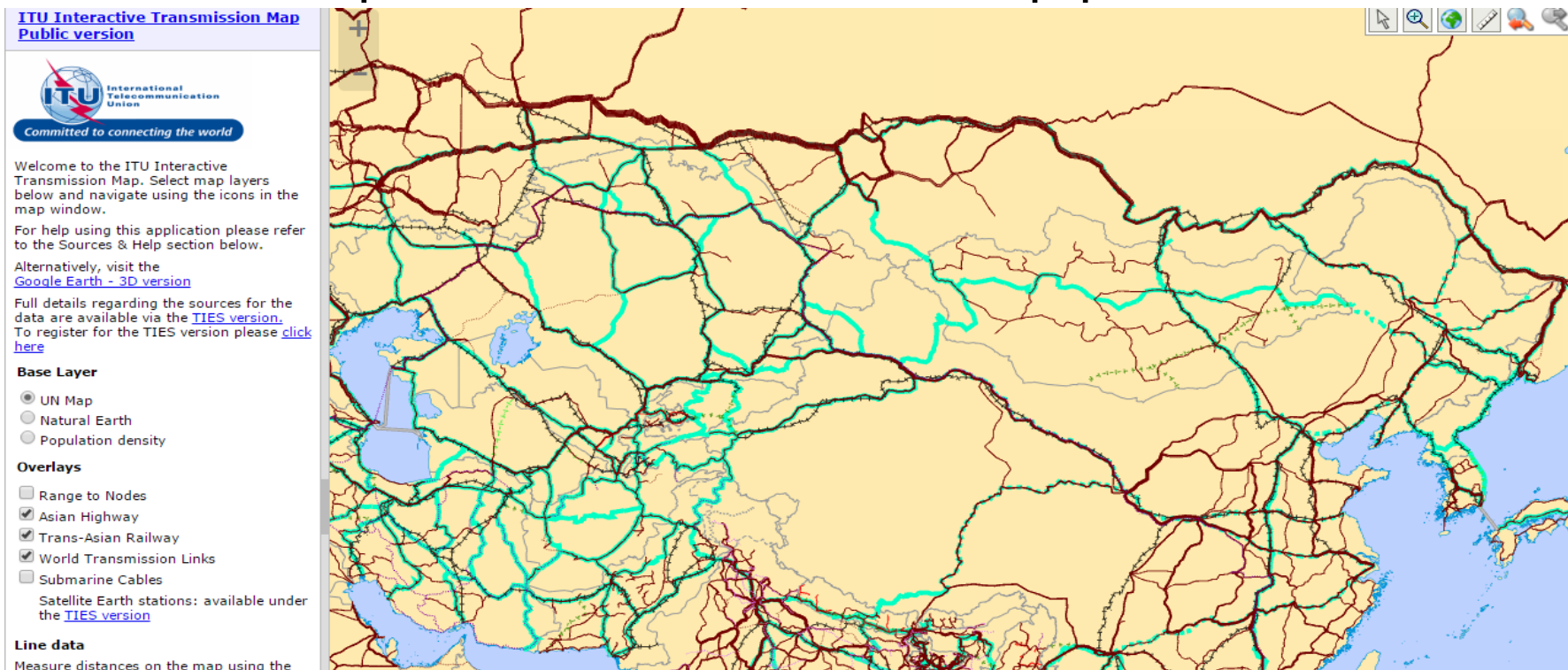
- Industry projections estimate that telecom networks should grow by approx. 400% over the next 5 years (*CISCO VNI*).
- Many countries do not show this level of investment, which will make the digital divide more pronounced with the passing of time.
- Currently “*backhaul networks are poorly meshed 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/>



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

