

# OVERVIEW: ICT CONNECTIVITY AND ASIA PACIFIC INFORMATION SUPERHIGHWAY (AP-IS)

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# The United Nations System



## UN Principal Organs

General Assembly

Security Council

Economic and Social Council

Secretariat

International Court of Justice

Trusteeship Council<sup>6</sup>

### Subsidiary Organs

Main and other sessional committees  
Disarmament Commission  
Human Rights Council  
International Law Commission  
Standing committees and ad hoc bodies

### Funds and Programmes<sup>1</sup>

**UNDP** United Nations Development Programme  
• **UNCDF** United Nations Capital Development Fund  
• **UNV** United Nations Volunteers  
**UNEP**<sup>8</sup> United Nations Environment Programme  
**UNFPA** United Nations Population Fund  
**UN-HABITAT**<sup>8</sup> United Nations Human Settlements Programme  
**UNICEF** United Nations Children's Fund  
**WFP** World Food Programme (UN/FAO)

### Research and Training

**UNIDIR** United Nations Institute for Disarmament Research  
**UNITAR** United Nations Institute for Training and Research  
**UNSSC** United Nations System Staff College  
**UNU** United Nations University

### Other Entities

**ITC** International Trade Centre (UN/WTO)  
**UNCTAD**<sup>1,8</sup> United Nations Conference on Trade and Development  
**UNHCR**<sup>1</sup> Office of the United Nations High Commissioner for Refugees  
**UNOPS** United Nations Office for Project Services  
**UNRWA**<sup>1</sup> United Nations Relief and Works Agency for Palestine Refugees in the Near East  
**UN-Women**<sup>1</sup> United Nations Entity for Gender Equality and the Empowerment of Women

### Related Organizations

**CTBTO Preparatory Commission**  
Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization  
**IAEA**<sup>1,3</sup> International Atomic Energy Agency  
**ICC** International Criminal Court  
**ISA** International Seabed Authority  
**ITLOS** International Tribunal for the Law of the Sea  
**OPCW**<sup>3</sup> Organisation for the Prohibition of Chemical Weapons  
**WTO**<sup>1,4</sup> World Trade Organization

### Subsidiary Organs

Counter-terrorism committees  
International Criminal Tribunal for Rwanda (ICTR)

International Criminal Tribunal for the former Yugoslavia (ICTY)  
Mechanism for International Criminal Tribunals (MICT)  
Military Staff Committee  
Peacekeeping operations and political missions  
Sanctions committees (ad hoc)  
Standing committees and ad hoc bodies

### Advisory Subsidiary Body

Peacebuilding Commission

**HLPF** High-level Political Forum on sustainable development

### Functional Commissions

Crime Prevention and Criminal Justice  
Narcotic Drugs  
Population and Development  
Science and Technology for Development  
Social Development  
Statistics  
Status of Women  
United Nations Forum on Forests

### Regional Commissions<sup>8</sup>

**ECA** Economic Commission for Africa  
**ECE** Economic Commission for Europe  
**ECLAC** Economic Commission for Latin America and the Caribbean  
**ESCAP** Economic and Social Commission for Asia and the Pacific  
**ESCWA** Economic and Social Commission for Western Asia

### Other Bodies

Committee for Development Policy  
Committee of Experts on Public Administration  
Committee on Non-Governmental Organizations  
Permanent Forum on Indigenous Issues  
**UNAIDS** Joint United Nations Programme on HIV/AIDS  
**UNGEGN** United Nations Group of Experts on Geographical Names

### Research and Training

**UNICRI** United Nations Interregional Crime and Justice Research Institute  
**UNRISD** United Nations Research Institute for Social Development

### Specialized Agencies<sup>1,5</sup>

**FAO** Food and Agriculture Organization of the United Nations  
**ICAO** International Civil Aviation Organization  
**IFAD** International Fund for Agricultural Development  
**ILO** International Labour Organization  
**IMF** International Monetary Fund  
**IMO** International Maritime Organization  
**ITU** International Telecommunication Union  
**UNESCO** United Nations Educational, Scientific and Cultural Organization

**UNIDO** United Nations Industrial Development Organization  
**UNWTO** World Tourism Organization  
**UPU** Universal Postal Union  
**WHO** World Health Organization  
**WIPO** World Intellectual Property Organization  
**WMO** World Meteorological Organization  
**World Bank Group**<sup>7</sup>  
• **IBRD** International Bank for Reconstruction and Development  
• **IDA** International Development Association  
• **IFC** International Finance Corporation

### Departments and Offices

**EOSG** Executive Office of the Secretary-General  
**DESA** Department of Economic and Social Affairs  
**DFS** Department of Field Support  
**DGACM** Department for General Assembly and Conference Management  
**DM** Department of Management  
**DPA** Department of Political Affairs  
**DPI** Department of Public Information  
**DPKO** Department of Peacekeeping Operations  
**DSS** Department of Safety and Security  
**OCHA** Office for the Coordination of Humanitarian Affairs

**OHCHR** Office of the United Nations High Commissioner for Human Rights  
**OIOS** Office of Internal Oversight Services  
**OLA** Office of Legal Affairs  
**OSAA** Office of the Special Adviser on Africa  
**PBSO** Peacebuilding Support Office  
**SRSG/CAAC** Office of the Special Representative of the Secretary-General for Children and Armed Conflict  
**SRSG/SVC** Office of the Special Representative of the Secretary-General on Sexual Violence in Conflict  
**UNISDR** United Nations Office for Disaster Risk Reduction

**UNODA** United Nations Office for Disarmament Affairs  
**UNODC**<sup>1</sup> United Nations Office on Drugs and Crime  
**UNOG** United Nations Office at Geneva  
**UN-OHRLS** Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States  
**UNON** United Nations Office at Nairobi  
**UNOP**<sup>2</sup> United Nations Office for Partnerships  
**UNOV** United Nations Office at Vienna

### Notes:

- 1 All members of the United Nations System Chief Executives Board for Coordination (CEB).
- 2 UN Office for Partnerships (UNOP) is the UN's focal point vis-a-vis the United Nations Foundation, Inc.
- 3 IAEA and OPCW report to the Security Council and the GA.
- 4 WTO has no reporting obligation to the GA, but contributes on an ad hoc basis to GA and Economic and Social Council (ECOSOC) work on, inter alia, finance and development issues.
- 5 Specialized agencies are autonomous organizations whose work is coordinated through ECOSOC (intergovernmental level) and CEB (inter-secretariat level).
- 6 The Trusteeship Council suspended operation on 1 November 1994, as on 1 October 1994 Palau, the last United Nations Trust Territory, became independent.
- 7 International Centre for Settlement of Investment Disputes (ICSID) and Multilateral Investment Guarantee Agency (MIGA) are not specialized agencies but are part of the World Bank Group in accordance with Articles 57 and 63 of the Charter.
- 8 The secretariats of these organs are part of the UN Secretariat.

This Chart is a reflection of the functional organization of the United Nations System and for informational purposes only. It does not include all offices or entities of the United Nations System.





Map No. 3974 Rev. 18 UNITED NATIONS  
August 2014

Department of Field Support  
Cartographic Section

IMPROVING REGIONAL BROADBAND CONNECTIVITY THROUGH THE  
**ASIA-PACIFIC INFORMATION SUPERHIGHWAY**



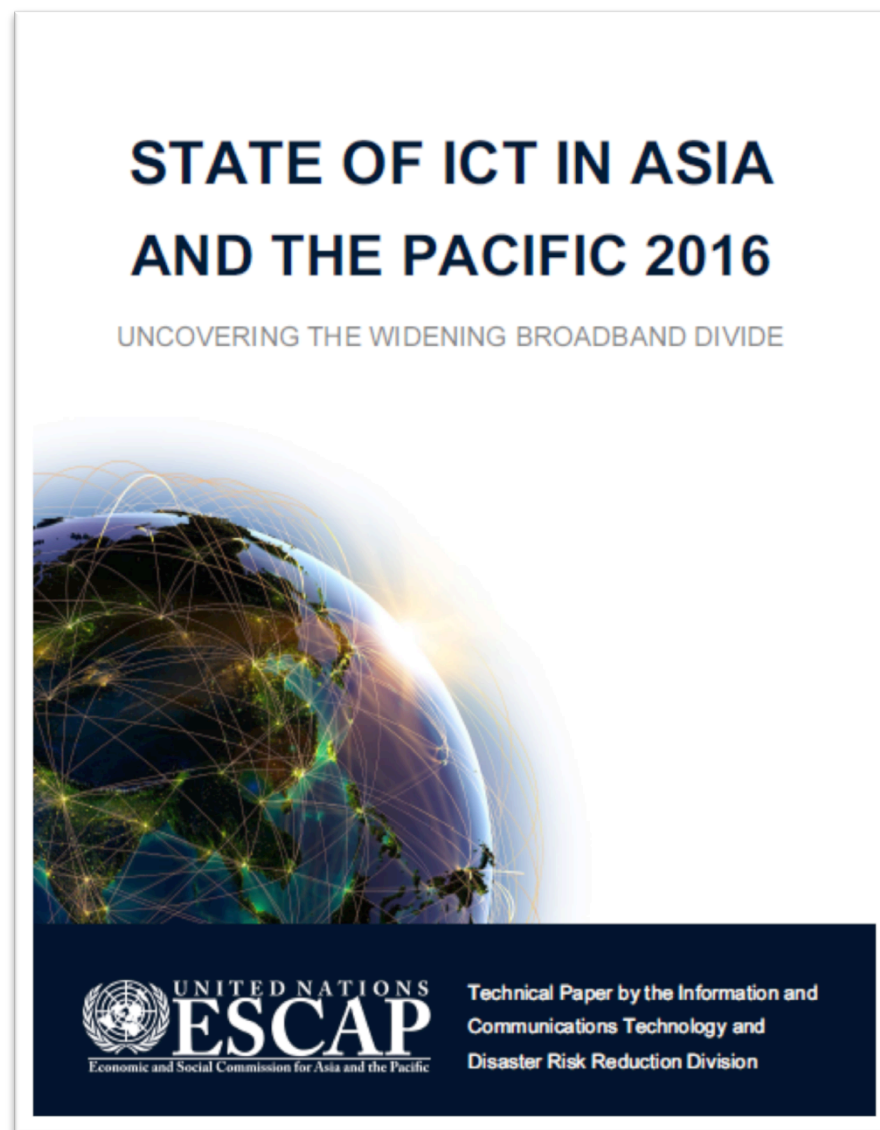
# ESCAP Resolution 69/10

- (b) To promote the exchange of best practices and experiences and knowledge related to the development of ICT infrastructure, including in-depth analysis of the policy and regulatory barriers that may impede efforts to synchronize the deployment of infrastructure across the region in a seamless manner;
- (c) To assist member States, through the provision of policy studies and capacity-building activities, in their efforts to integrate ICT into national development processes;
- (d) To pursue the facilitation and coordination of the regional review of progress in implementation of the targets set out in the outcome documents of the WSIS
- (f) To work towards a regional framework for action, guided by the outcome of the United Nations Conference on Sustainable Development, that strengthens regional policymaking processes related to ICT for inclusive and sustainable development.



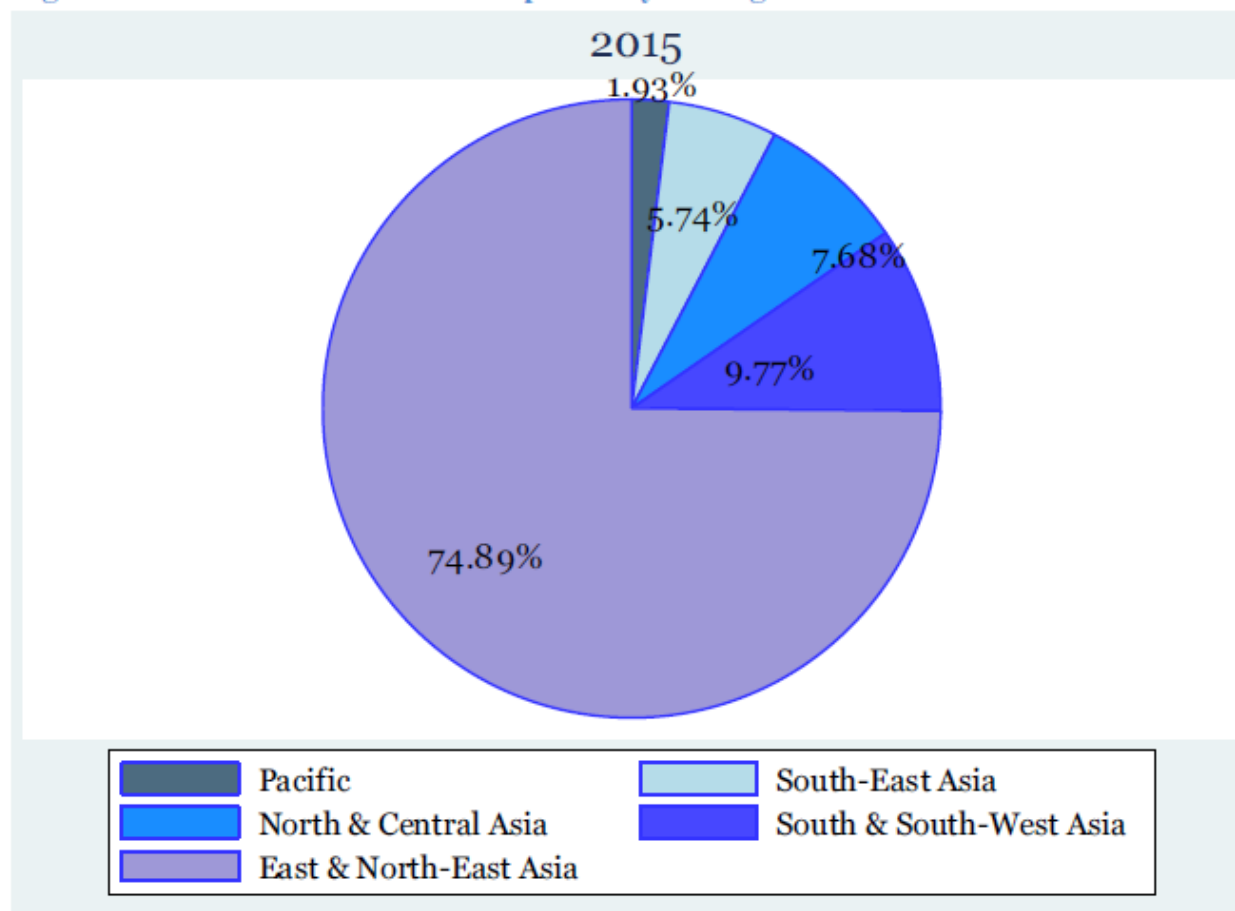
# State of ICT

- Analyzed the broadband digital divide in Asia and the Pacific
- Reviewed differential growth patterns in mobile and fixed broadband
- Identified some factors affecting the growth



# Challenges: Digital Divide in Asia and the Pacific

Figure 3: Fixed broadband subscriptions by subregion in 2015



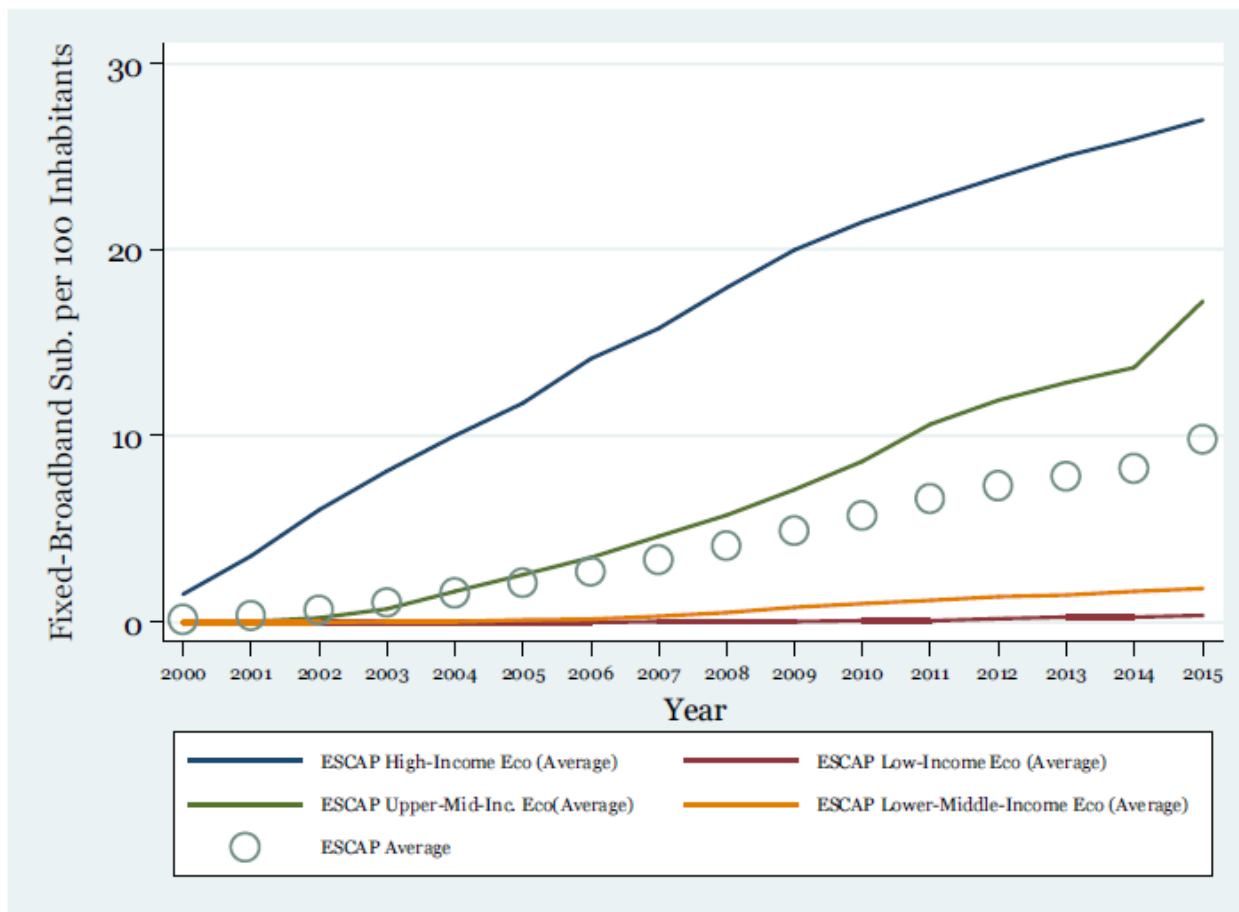
Source: Produced by ESCAP, based on data sourced from ITU World Telecommunications/ICT Indicators Database (accessed July 2016).





# Challenges: Digital Divide in Asia and the Pacific

Figure 9: Fixed broadband subscriptions per 100 inhabitants by income group, 2000-2015

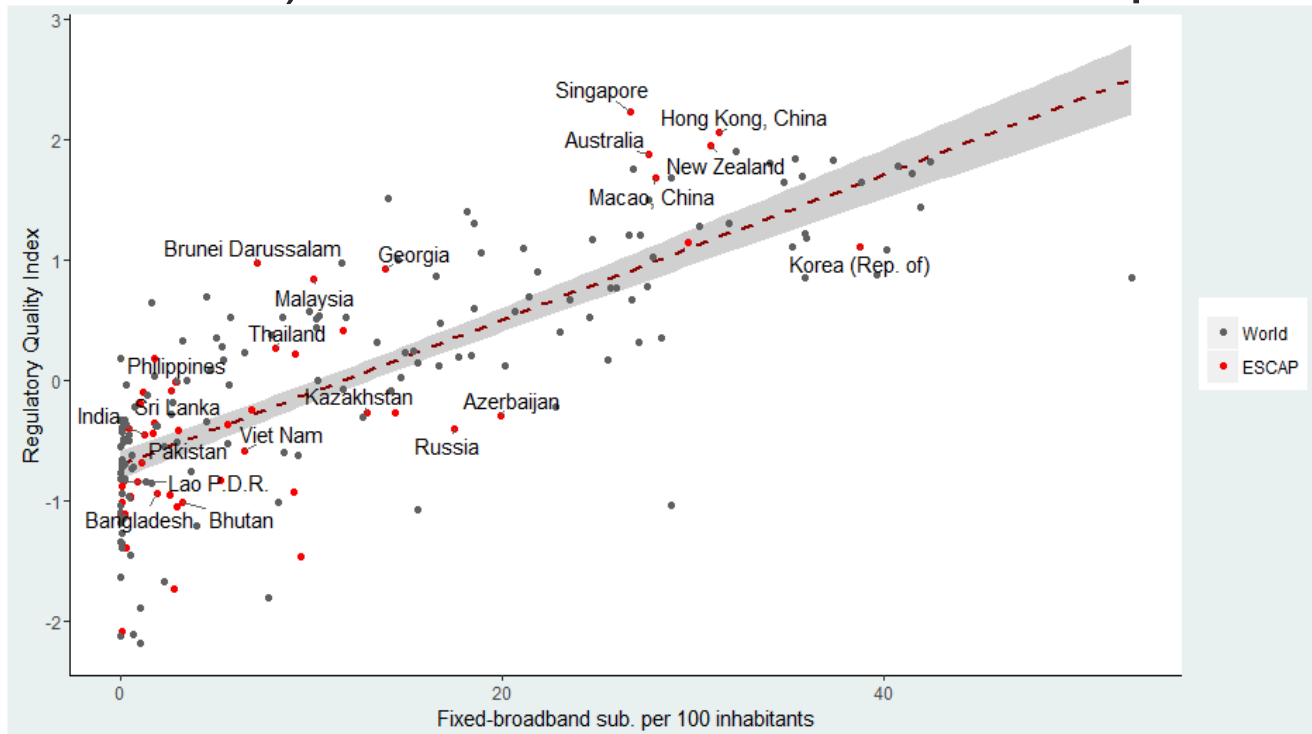


**Source:** Produced by ESCAP, based on data sourced from ITU World Telecommunications/ICT Indicators Database (accessed July 2016).



# Challenges : 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 instill certainty in investment environment, which encourages private operators to invest more.

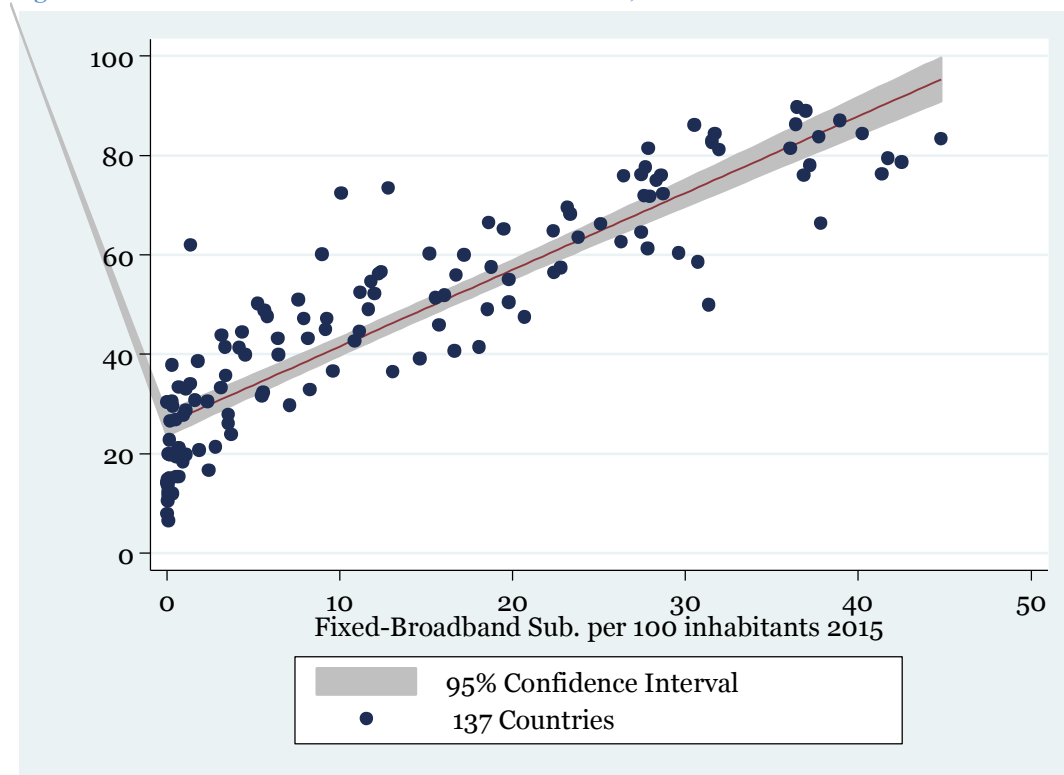




# Challenges : E-commerce and ICT Access

- Strong positive correlation between E-commerce and broadband access
- Hence, **if broadband infrastructure is not in place, it limits access and therefore e-commerce.**

Figure 15: E-commerce versus fixed broadband access, 2015



**Sources:** ESCAP estimates; UNCTAD B2C E-Commerce Index 2016; and fixed broadband per 100 sourced from ITU.

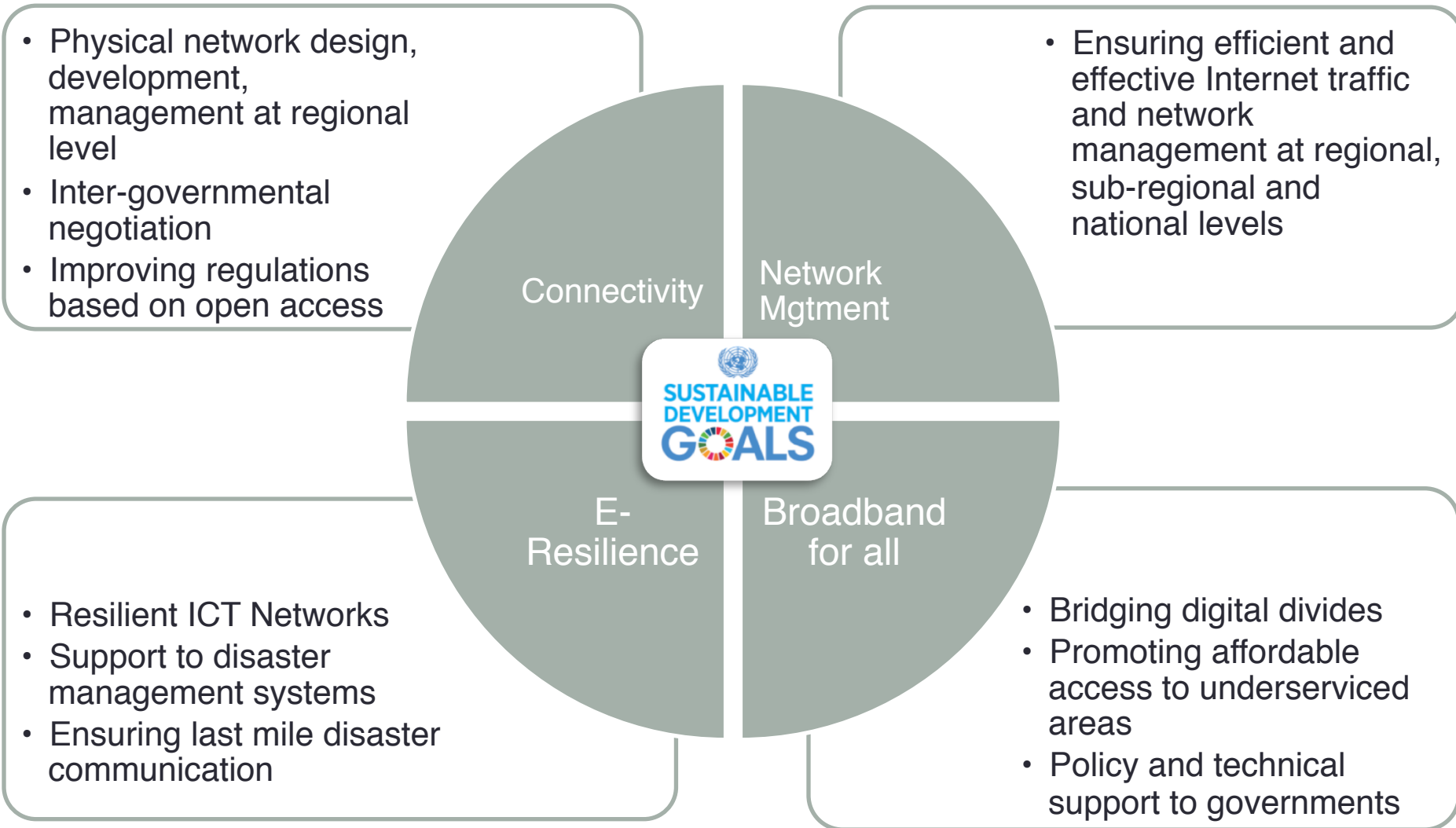


## ESCAP Resolution 71/10 – formation of AP-IS Working Group

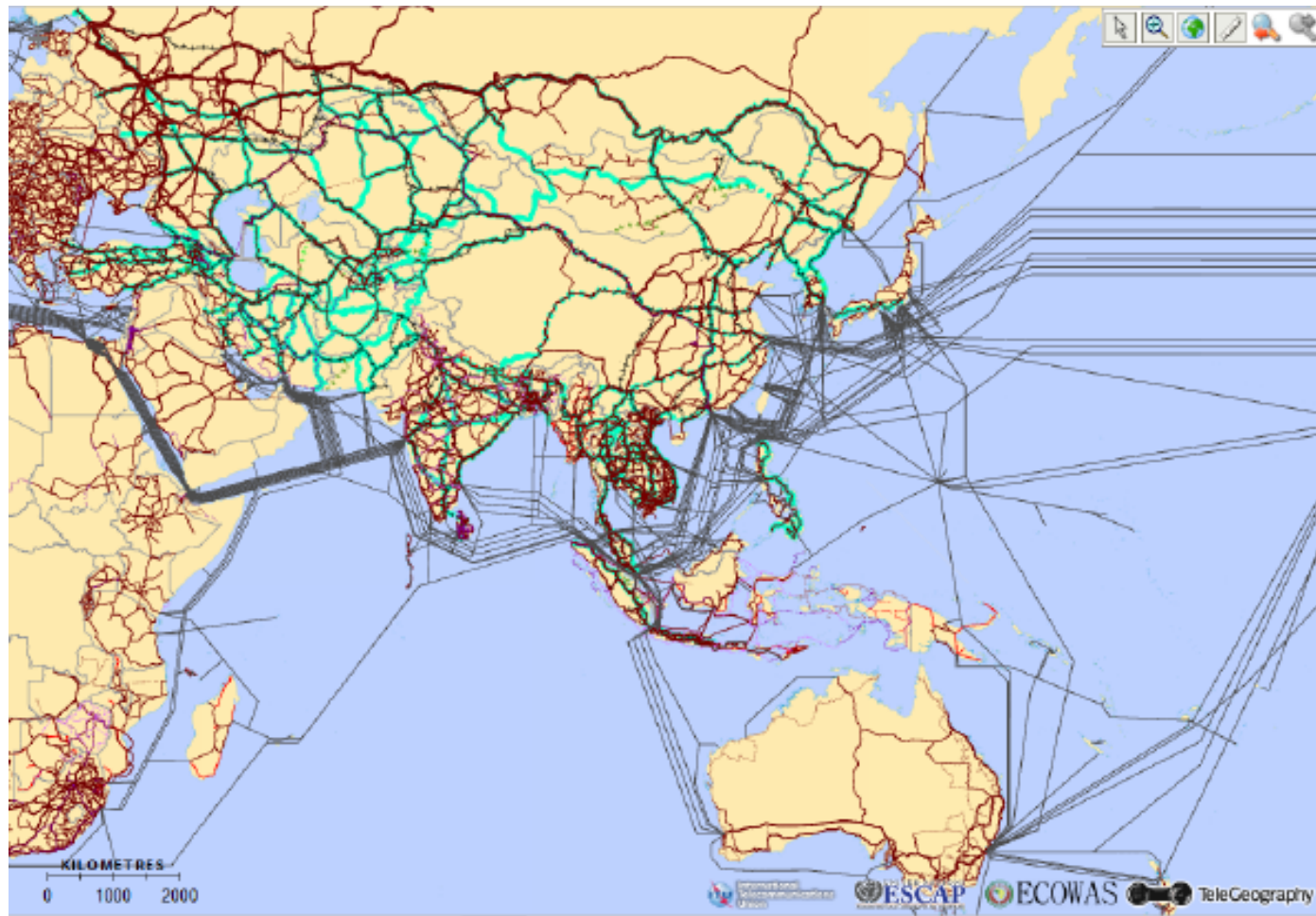
- (a) To promote the sharing of experiences, good practices and lessons learned in ICT for DRR, management and response, and building e-resilience;
- (b) To provide the necessary support to facilitate the work of the open-ended working group on the Asia-Pacific information superhighway;
- (c) To continue the fact-finding initiatives and analysis on the Asia-Pacific information superhighway, including by enhancing its maps, through partnerships with ITU and regional policy research institutions;
- (d) To continue working on the Asia-Pacific information superhighway in collaboration with international and regional partners
- (e) To promote, in collaboration with national, regional and international development partners, civil society and the private sector, the exchange of best practices and experiences and knowledge related to the development of ICT infrastructure, including in-depth analysis of the policy and regulatory barriers that may impede efforts to synchronize the deployment of infrastructure across the region in a seamless manner;
- (f) To explore further ways to harness cross-sectoral synergies, including through the review of best practices to recommend solutions to leverage synergies among ICT, energy and transport infrastructures across the region



# What is AP-IS? : Four Pillars of AP-IS



# Asia-Pacific Information Superhighway

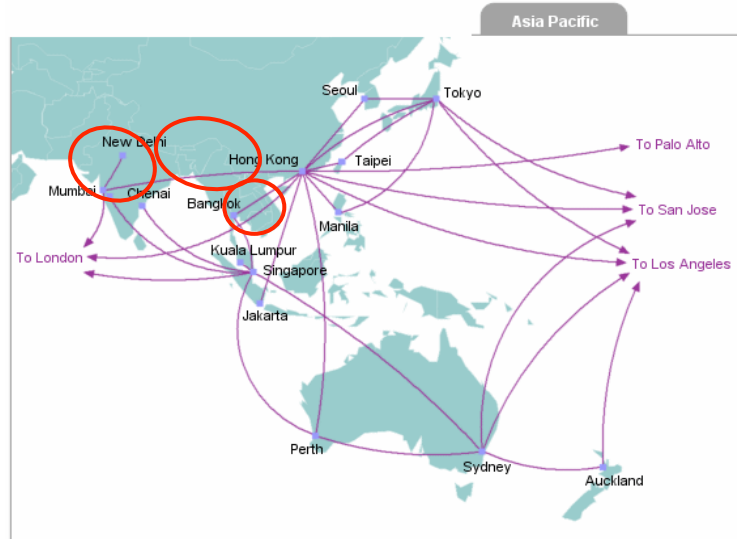


Interactive Map, visit <http://www.itu.int/itu-d/tnd-map-public/>

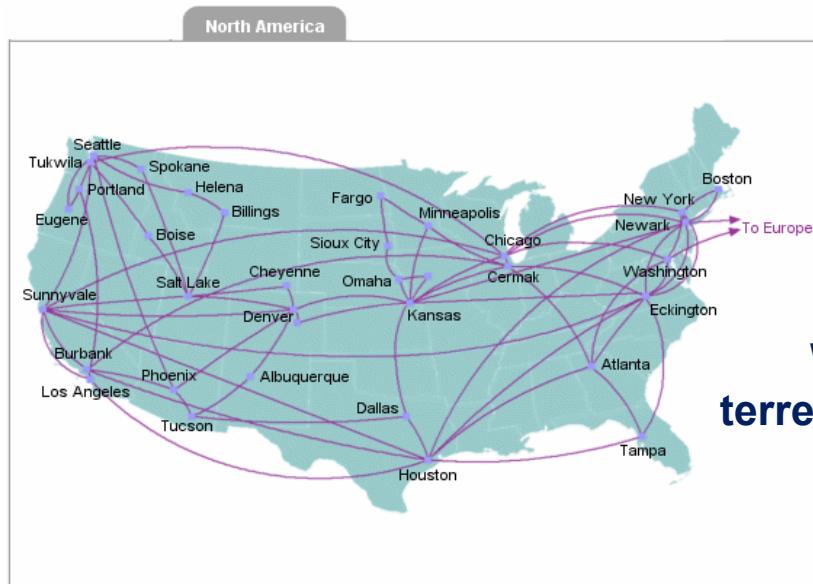
IMPROVING REGIONAL BROADBAND CONNECTIVITY THROUGH THE  
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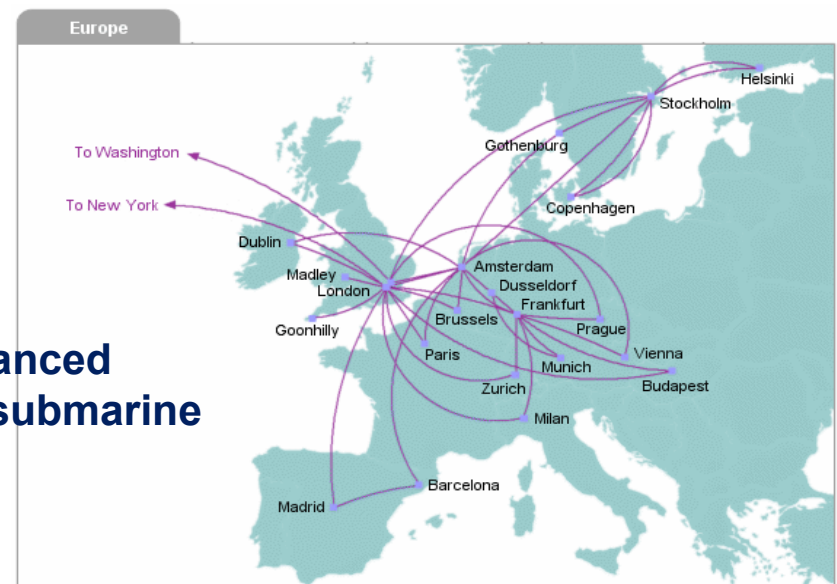
# Regional Broadband Backbone Connectivity



- **Well-developed** and market-driven submarine backbone connectivity
- **Underdeveloped cross-border/sub-regional terrestrial connectivity:** Missing, Insufficient, not-integrated links
- Poor network redundancy, **poor resilience**

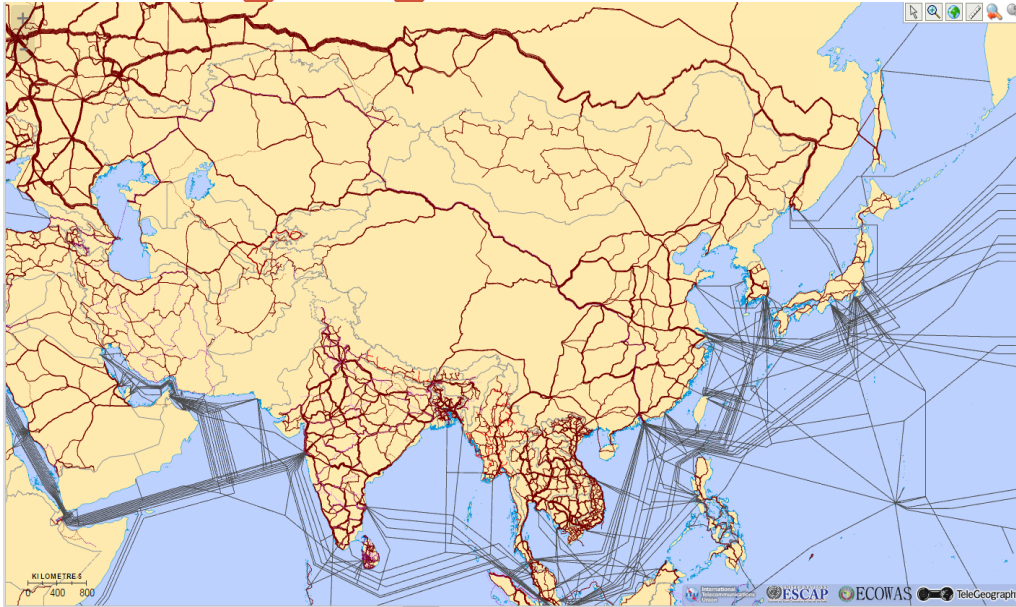


**Well-balanced  
terrestrial & submarine**

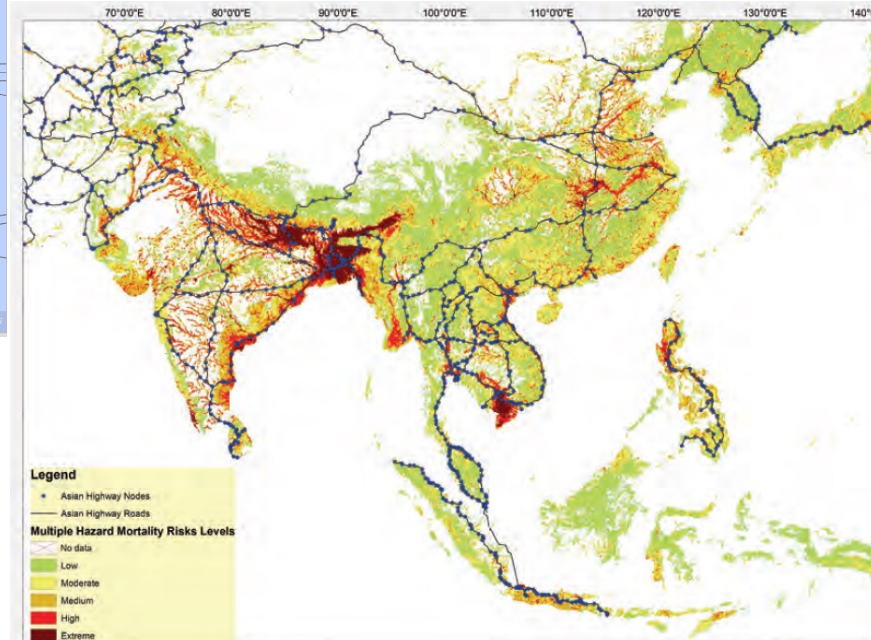
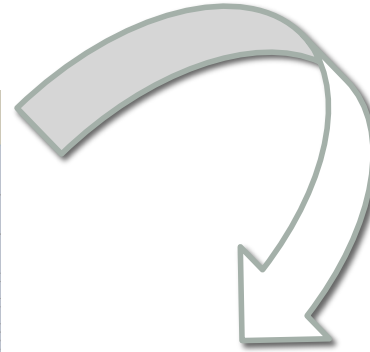




# ICT infrastructure risk map: Designing for resilience



Source: ITU-ESCAP, AP-IS map (2013). Available at <http://www.unescap.org/our-work/ict-disaster-risk-reduction/asia-pacific-information-superhighway>



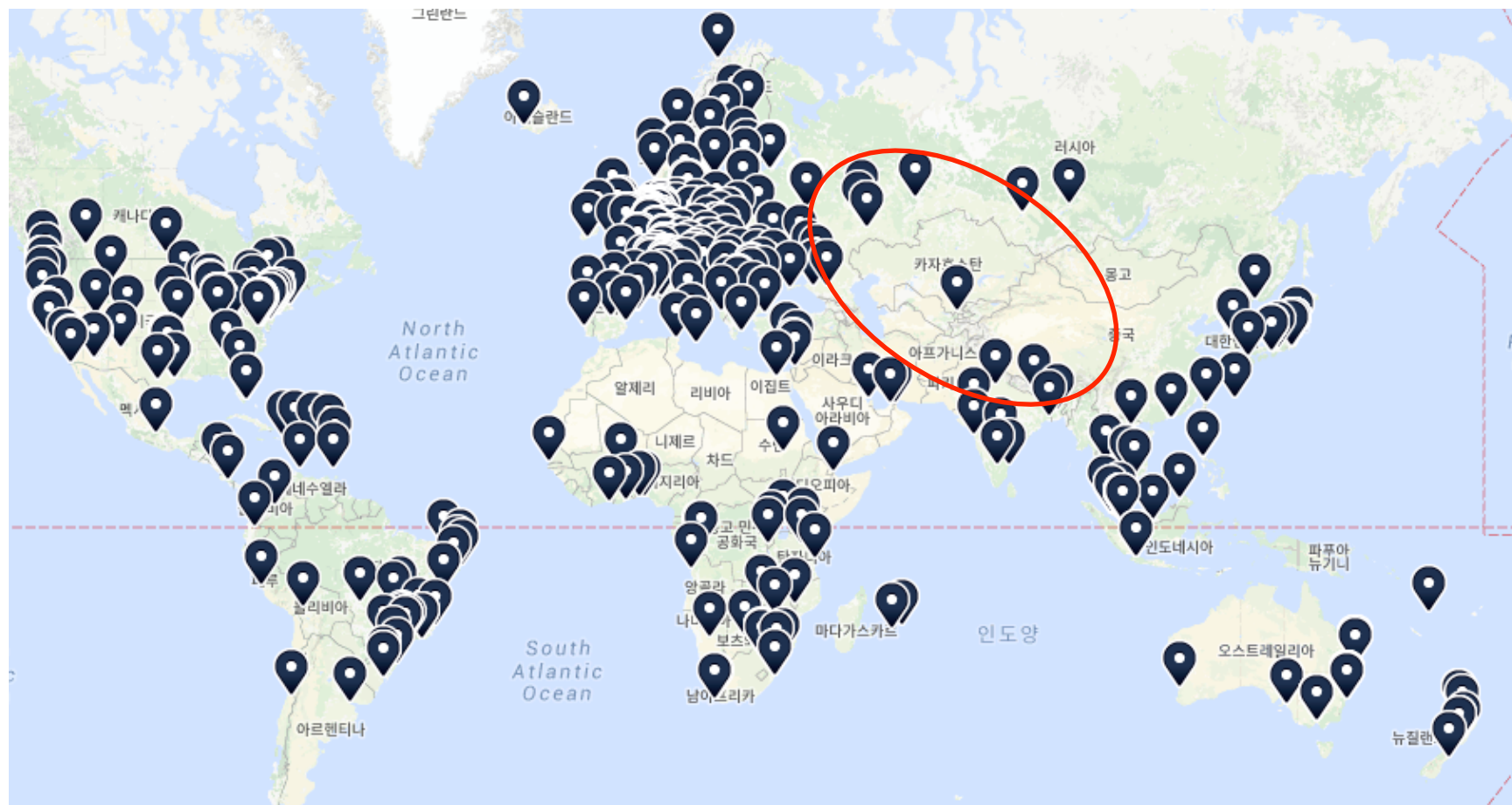
Source: ESCAP based on the map from UNEP, GRID and ESCAP, Asian Highway Database.





# Regional Internet Exchange Connectivity

- Insufficient, inefficient Internet traffic exchange & management systems



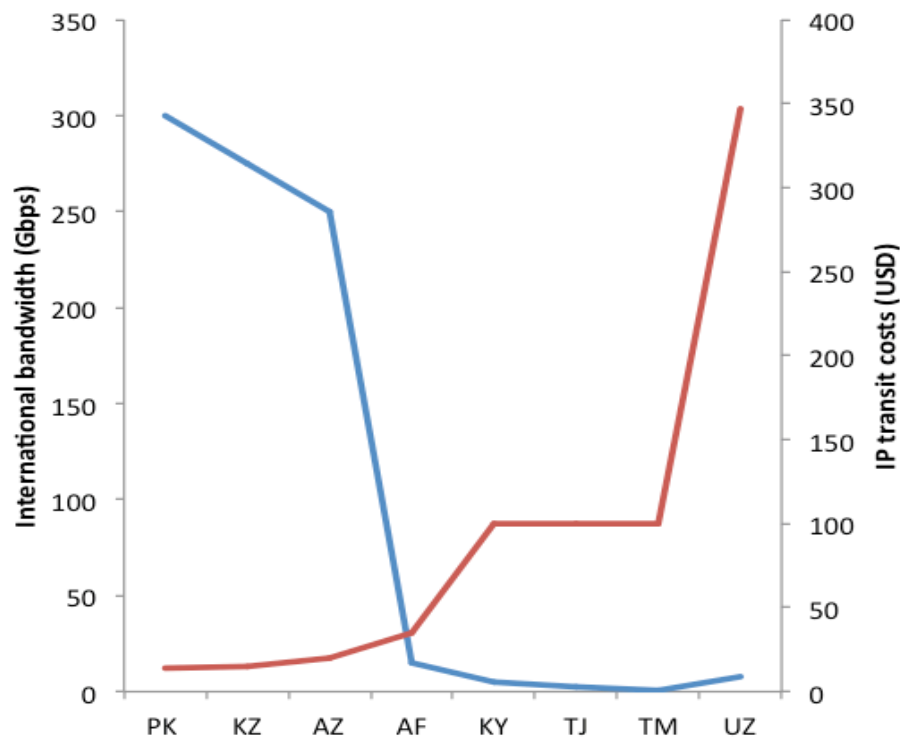
Source : "Telegraphy Internet Exchange Map"  
[www.internetexchangemap.com](http://www.internetexchangemap.com)

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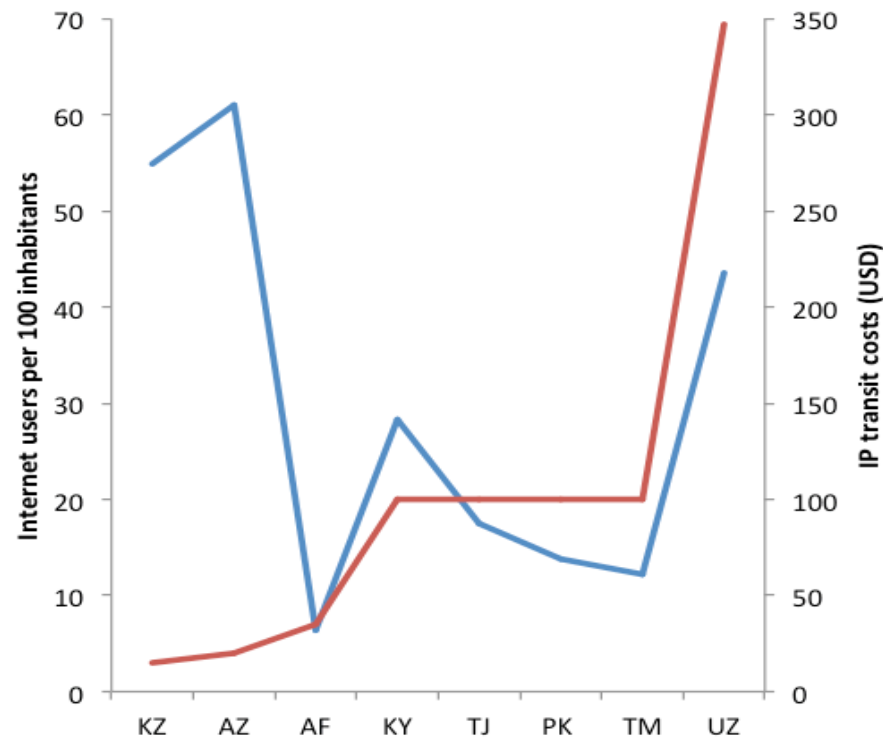


# Without effective supply and competitive transit, prices remain high and take up remains low

## International bandwidth vs. IP transit costs



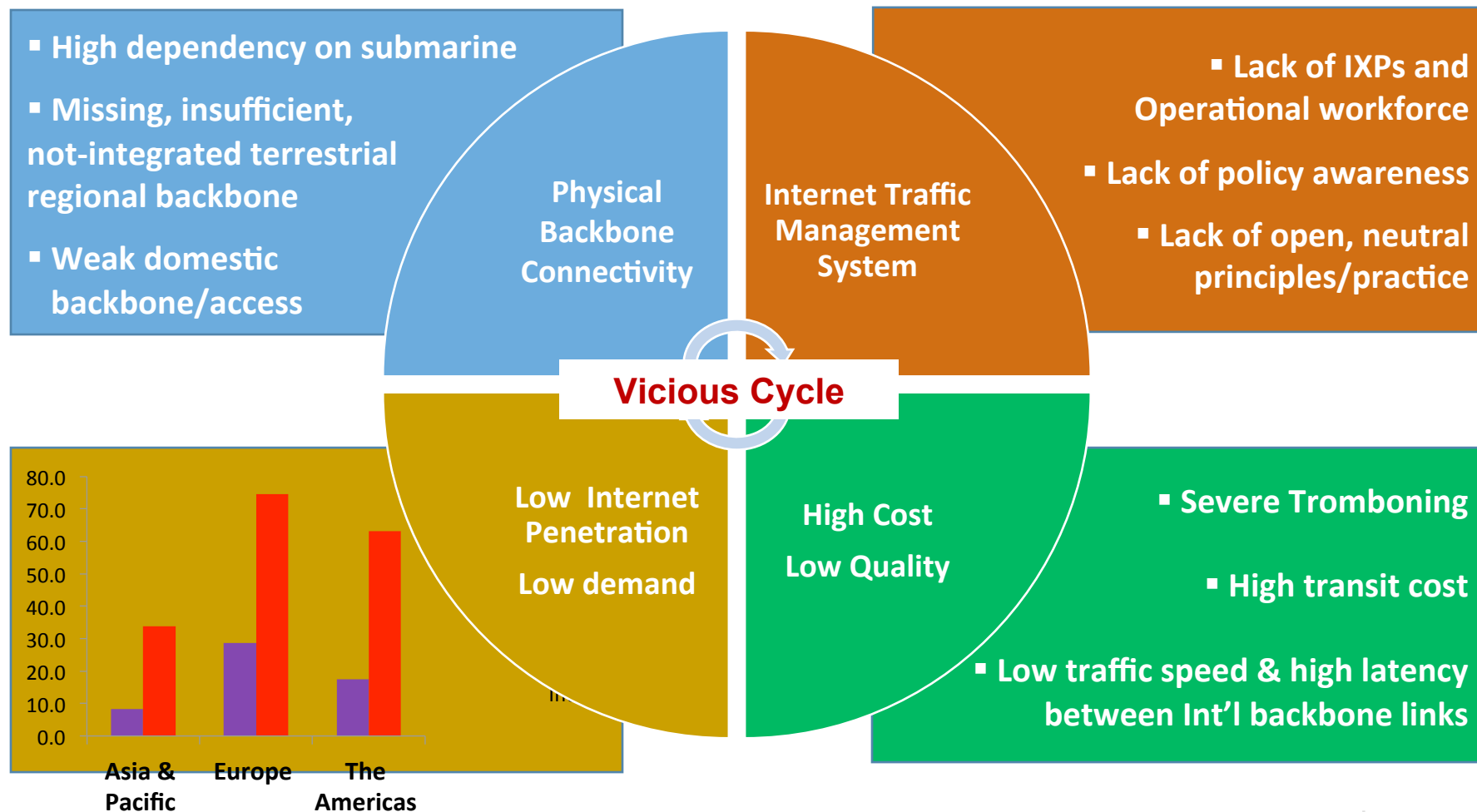
## Internet penetration vs. IP transit costs



**Note:** Tajikistan, Turkmenistan and Uzbekistan: outlier status (largely due to dominance of incumbent)



# Summary of Regional Status and Results



- **Fixed BB subscription** \* ITU 2014 (per 100 inhabitants)
- **Individual using the Internet**



# Sustainable Development Goals



# THANK YOU

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