

**URBAN INFRASTRUCTURE FORUM**  
**8 September 2016**

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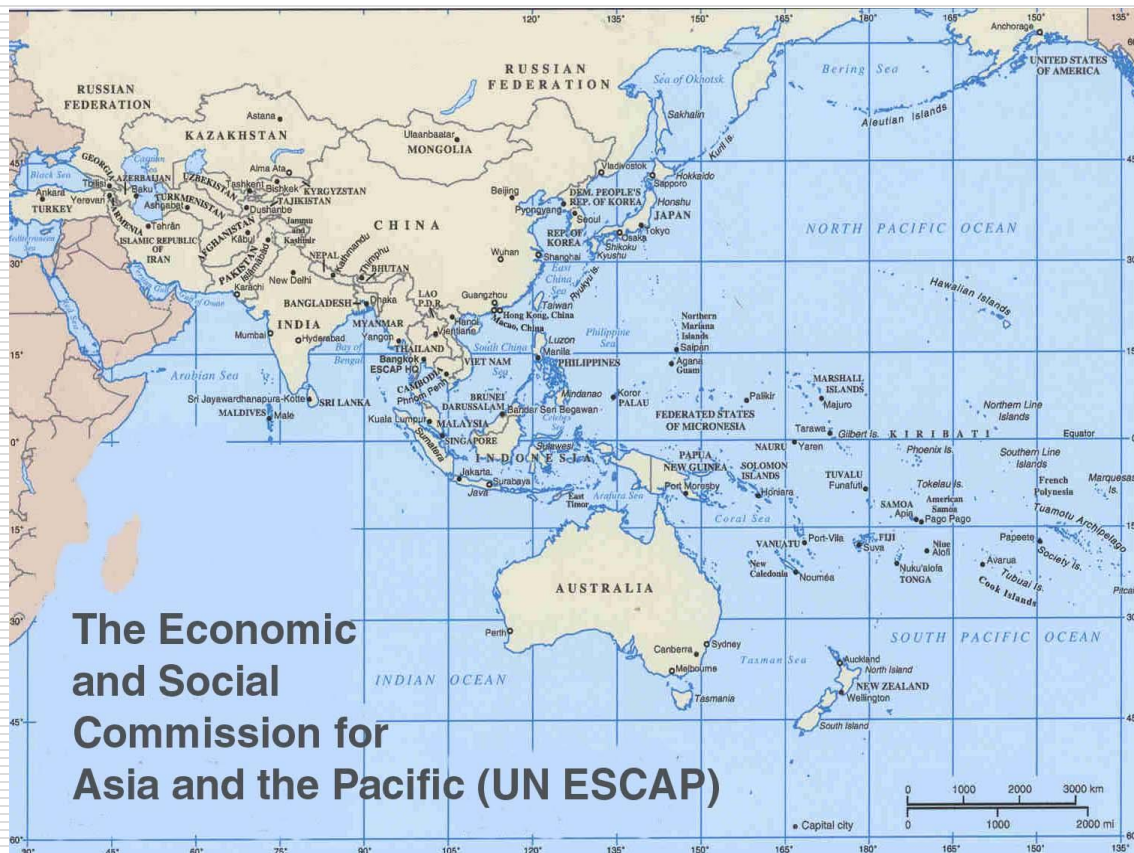
# **UNESCAP's Role in Asian Transport Network Development**

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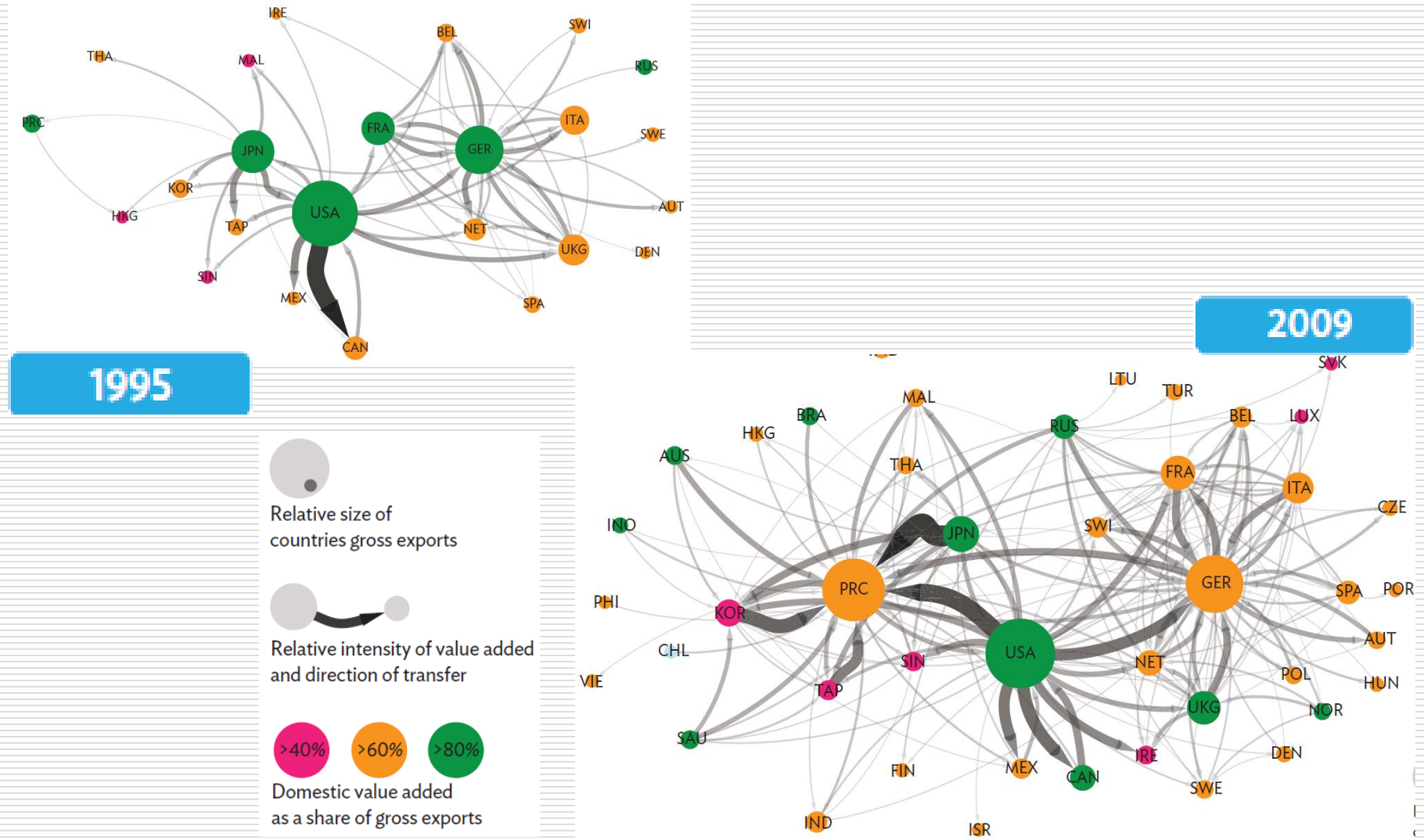
**International School of Urban Sciences**  
**University of Seoul**

# UNESCAP at a glance: *Facts and figures*

- ❑ 4.3 bil. people (60% of world population, 2014)
- ❑ 36% of world trade
- ❑ Engine of the world economy - Key nodes in IPN and GVC
- ❑ Absolute poverty 52% (1990) → 15% (2012)



# Asia's integration in Global Value Chain



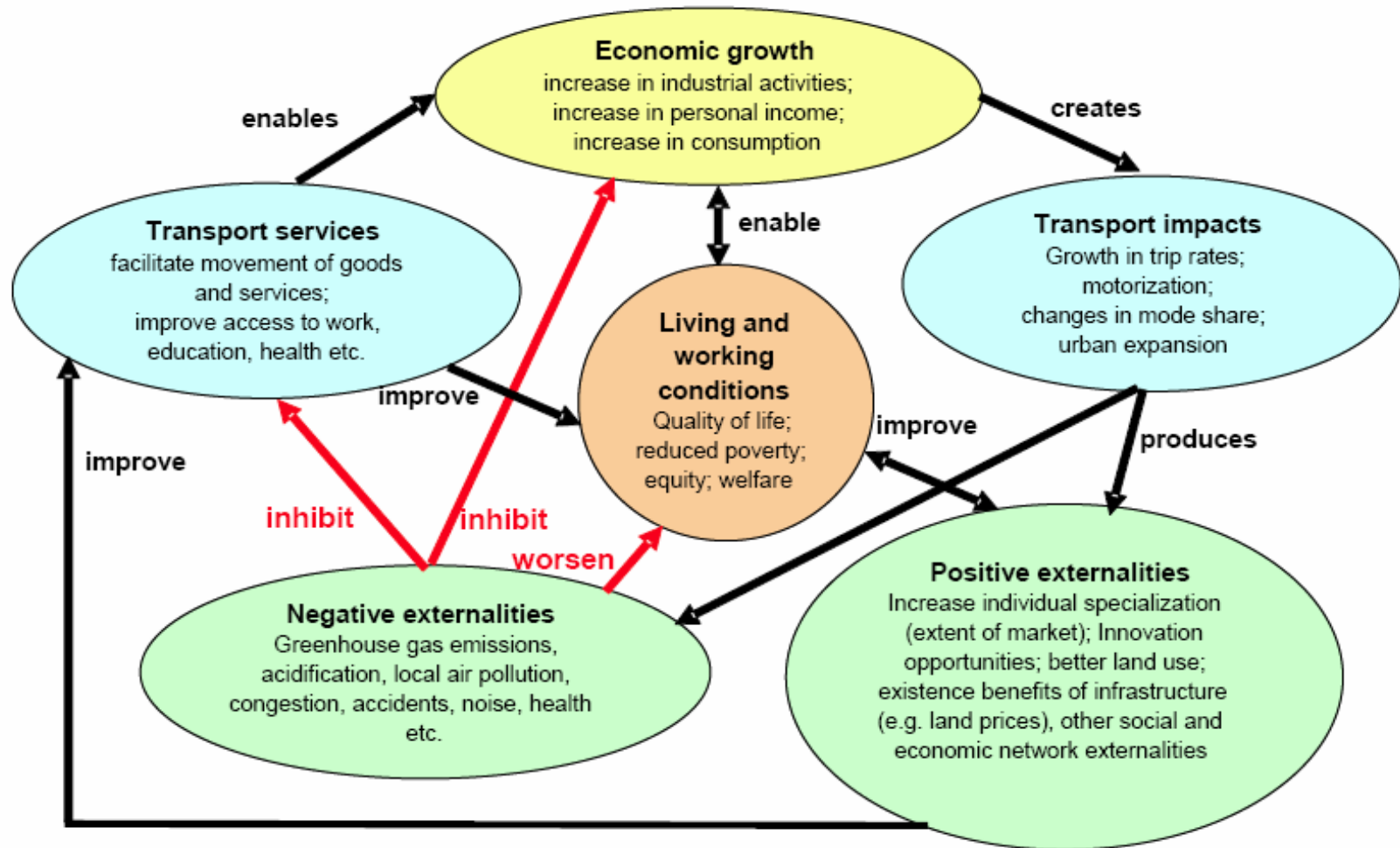
Source: ADB, Asian Development Outlook 2014 Update: Asia in global value chains.

# Prosperity not shared inclusively

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- ❑ **640 million people still in absolute poverty**
  - ❖ **1.55 billion living on <\$2/day**
- ❑ **Increasing inequality**
  - ❖ **Gini coefficient rose from 33.5 to 37.5**
  - ❖ **Gap between urban and rural areas, men and women, different castes, ethnic groups. etc**
  - ❖ **Gap between developed and least developed countries**
- ❑ **280 million without access to clean water and 1.52 billion to sanitation**
- ❑ **52% of the world CO<sub>2</sub> emission in 2010 (38% in 1990)**
- ❑ **Need to strengthen efforts towards inclusive and sustainable development**

# Sustainable Development and Transport



# Development of Asian Transport Network

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## □ Historical review

- ❖ Recognition of need for transport linkages in end 1950's
- ❖ Political conflicts in Asia in 1960's and 1970's
- ❖ Restoration of peace in Asia in 1980's
- ❖ Demise of former USSR and emergence of independent states in early 1990's

## □ Asian Land Transport Infrastructure Development (ALTID), 1992

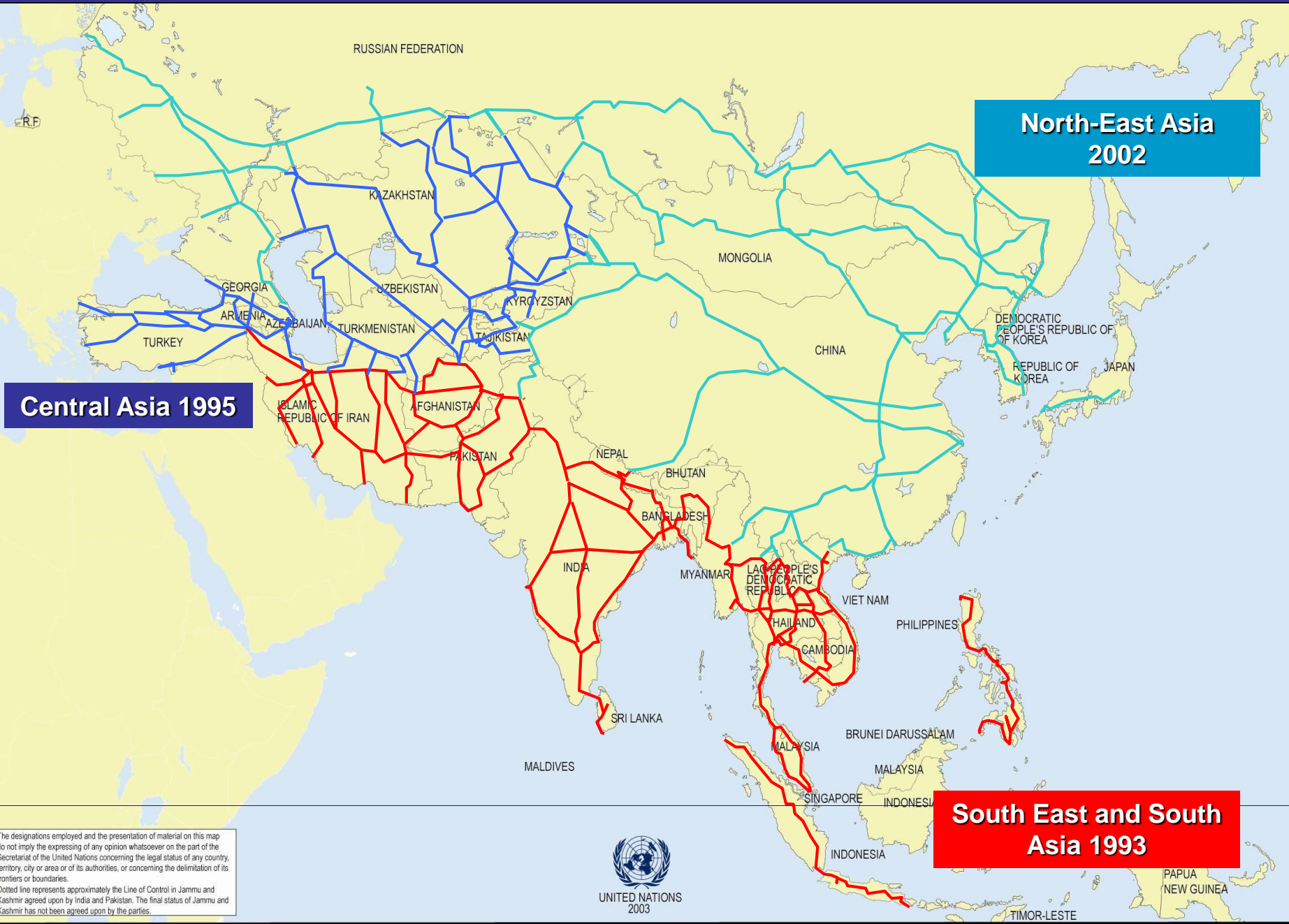
- ❖ Asian Highway
- ❖ Trans-Asian Railway
- ❖ Land Transport Facilitation

# Step-by-step approach

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- **Agree among countries on the network as routes of international importance**
  - ❖ **Promote harmonized and coordinated transport infrastructure development according to agreed technical and design standards**
  - ❖ **Engage countries with legal obligations through intergovernmental agreement**
- **Construct and upgrade of physical infrastructure on the network**
  - ❖ **Financing**
- **Operationalize the network**
  - ❖ **Facilitate the movement of goods and people along the network**

# Formulation of Asian Highway Network



The designations employed and the presentation of material on this map do not imply the expressing of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.  
Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not been agreed upon by the parties.



**South East and South Asia 1993**

# Asian Highway Network



- Legend**
- Asian Highway Route
  - - - - Potential Asian Highway Route
  - - - - Ferry Link
  - Capital City

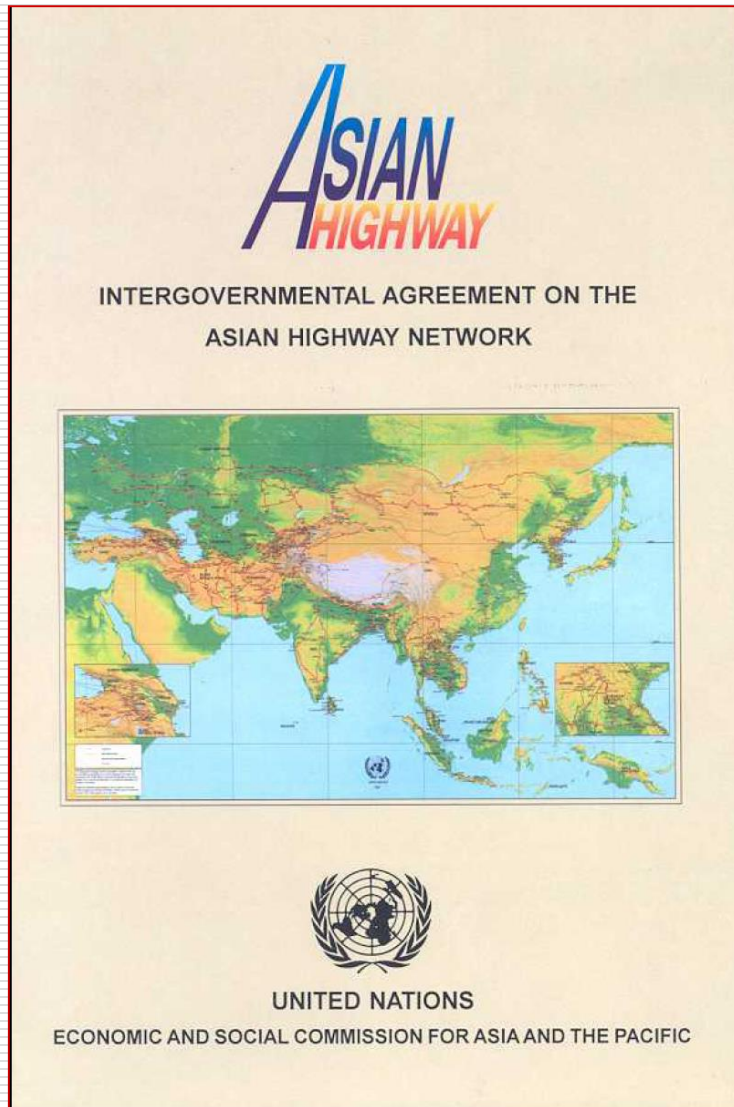
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Route alignment between Tokyo and Fukuoka in Japan is not reported.



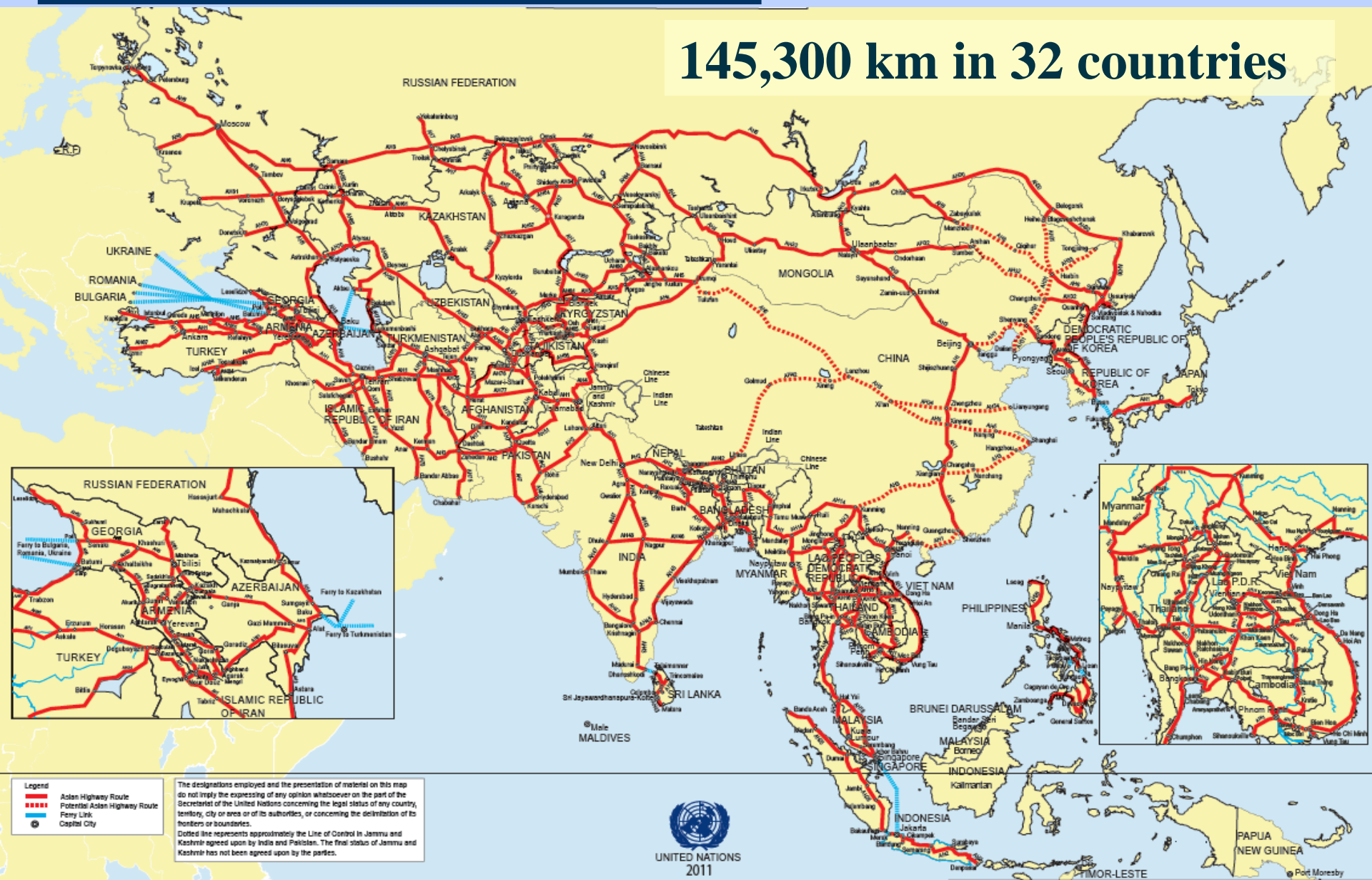
# Intergovernmental Agreement on AH Network



- ❑ **Adopted in Nov. 2003**
- ❑ **Signed in May 2004**
- ❑ **Entered into force on 4 July 2005**
- ❑ **29 Parties & 1 signatory yet to become party**
- ❑ **Provisions**
  - ❖ **Routes**
  - ❖ **Classification & design standards**
  - ❖ **AH signage**
  - ❖ **AH Working Group**

# Asian Highway Network

145,300 km in 32 countries



- Legend**
- Asian Highway Route
  - - - - - Potential Asian Highway Route
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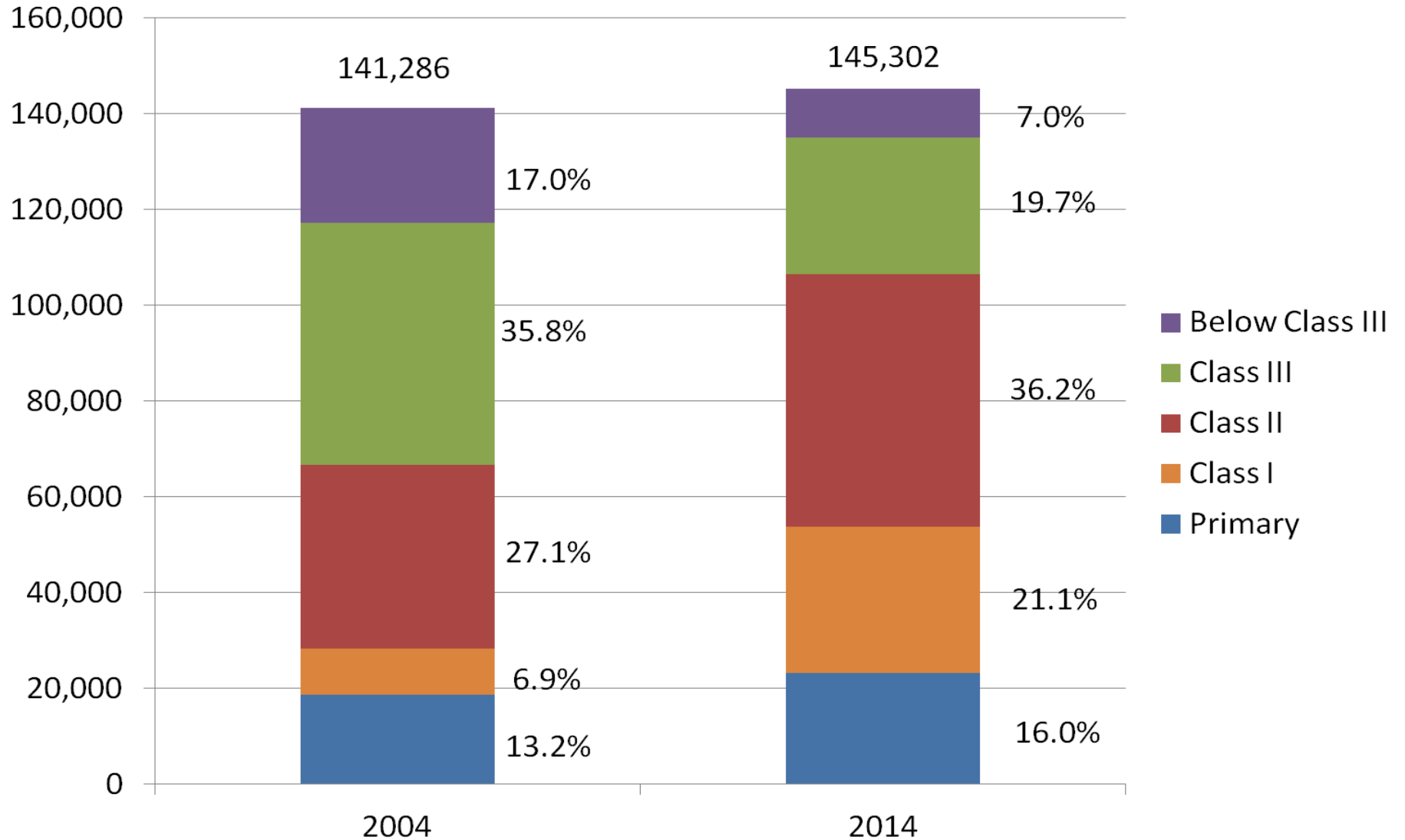


# Asian Highway Classification

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<b>Classification</b>	<b>Description</b>	<b>Pavement type</b>
<b>Primary</b>	<b>Access-controlled highways</b>	<b>Asphalt or cement concrete</b>
<b>Class I</b>	<b>4 or more lanes</b>	<b>Asphalt or cement concrete</b>
<b>Class II</b>	<b>2 lanes</b>	<b>Asphalt or cement concrete</b>
<b>Class III</b>	<b>2 lanes</b>	<b>Double bituminous treatment</b>

# Asian Highway Status (2004 – 2014)



# Formulation of Trans-Asian Railway Network

## TAR Northern Corridor

China, Democratic People's Republic of Korea, Kazakhstan, Mongolia, Republic of Korea, Russian Federation

2001

1995

1999

1996

## TAR North-South Corridor

Armenia, Azerbaijan, Finland, Georgia, Kazakhstan, Russian Federation, Turkmenistan, Uzbekistan

## TAR Southern Corridor

Bangladesh, India, Islamic Republic of Iran, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand, Turkey

## TAR in Indochina and ASEAN

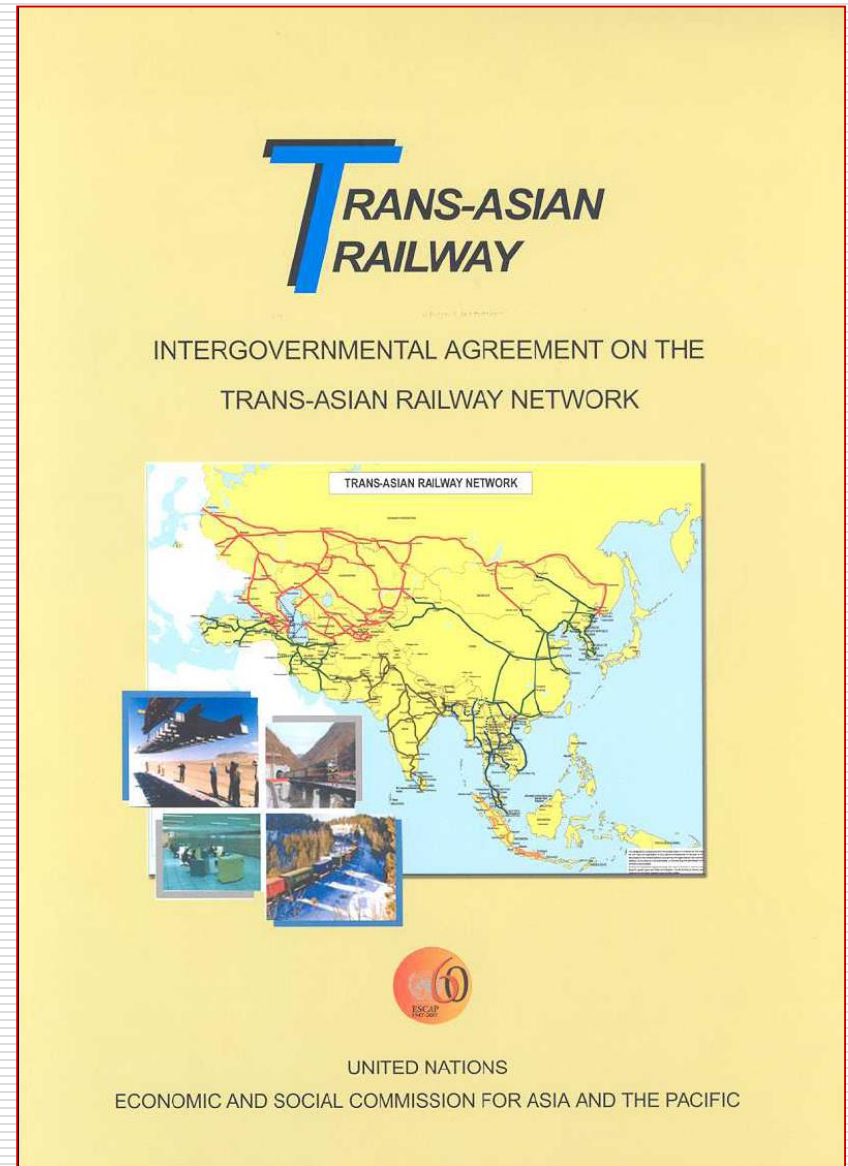
Cambodia, China (Yunnan province), Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Viet Nam

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# Intergovernmental Agreement on TAR Network

- ❑ **Adopted in April 2006**
- ❑ **Signed in Nov. 2006**
- ❑ **Entered into force on 11 June 2009**
- ❑ **18 Parties & 5 signatories yet to become party**
- ❑ **Provisions**
  - ❖ **Routes**
  - ❖ **Guiding Principles relating to Technical Characteristics**
  - ❖ **TAR Working Group**

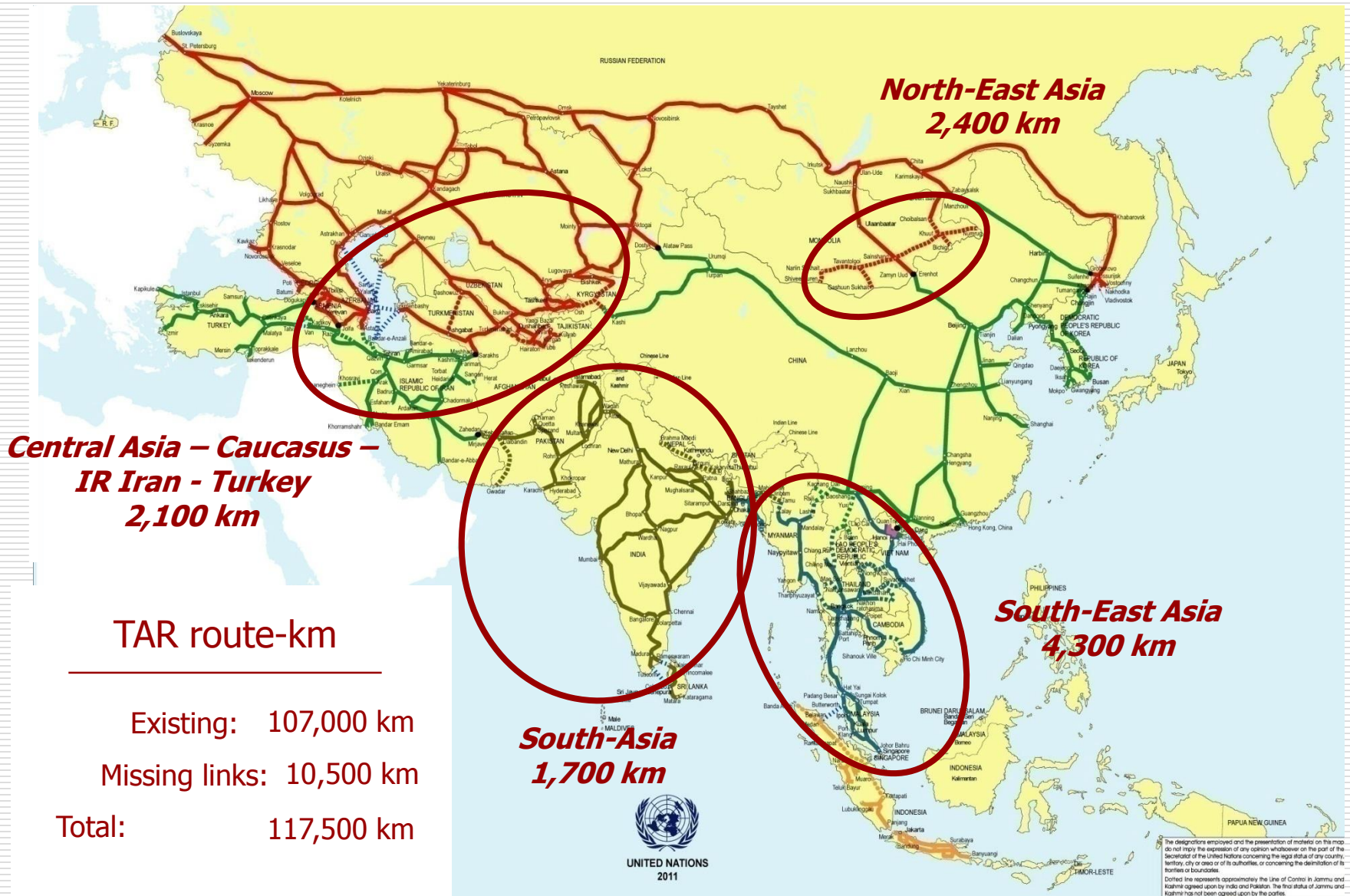


# Trans-Asian Railway Network

117,500 km in 28 countries



# Trans-Asian Railway – Missing Links



# Intermodal Integration of AH & TAR

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## ❑ Intermodal interfaces

### ❖ Dry ports/ICDs with functions similar to sea ports

- container (and possibly bulk) handling facilities
- intermodal infrastructure connections
- provision of accompanying services such as customs, inspections, tax payment, etc

## ❑ Focus for development

### ❖ Clustering a variety of economic and logistics business activities

# Intergovernmental Agreement on Dry Ports

政府间陆港协定

Intergovernmental Agreement on Dry Ports

Межправительственное соглашение  
о «сухих портах»



- ❑ **Adopted in May 2013**
- ❑ **Signed in Nov. 2013**
- ❑ **Entered into force on 23 April 2016**
- ❑ **11 Parties & 9 signatories yet to become party**
- ❑ **Provisions**
  - ❖ **List of 240 dry ports in 27 countries**
  - ❖ **Guiding principles**
  - ❖ **Working Group on Dry Ports**

# Next step – Physical infrastructure

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- ❑ **Construction/upgrade of physical infrastructure under responsibility of individual countries**
- ❑ **Investment requirements**
  - ❖ **AH: \$5 bil. to upgrade below-class III (10,000 km) and class III (29,000 km) sections to class II+ \$???** to upgrade to class I
  - ❖ **TAR: \$60 bil. to build single tracks along the missing links (10,500 km) + \$???** for double tracks and electrification
  - ❖ **Dry ports: \$???**
  - ❖ **Sea ports: \$???**

# Financing for infrastructure development

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## □ Financing requirements

- ❖ **World Bank: \$1.3 tril./year for infrastructure development in developing countries**
- ❖ **ADB: \$800 bil./year for infrastructure in Asia (of which \$200 bil. for transport infrastructure)**
- ❖ **McKinsey: \$57 tril. during 2013-2030 for world infrastructure development**

## □ Limited capacity (paid-in capital) of development banks

- ❖ **World Bank: \$253 bil.**
- ❖ **ADB: \$165 bil.**
- ❖ **AIIB: \$100 bil.**

## □ Public-Private Partnership (PPP)

# Next step – Transport facilitation

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- **Despite improved infrastructure connectivity, bottleneck still remains in institutional connectivity, particularly to cross borders**
  - ❖ **Lack of simplified, standardized and harmonized documentation and procedures**
  - ❖ **Lack of transparency in application of procedures**
  - ❖ **Denial of access to foreign vehicles**
  - ❖ **Incompatibility of vehicle weights and dimensions, insurance and drive licensing qualification**
  - ❖ **Operational difficulties from differences in the capacity of vehicles used in cross-border traffic**
  - ❖ **Difficulties in coordinating many agencies and stakeholders involved in border crossing**
  - ❖ **Etc.**

# Effective legal regimes

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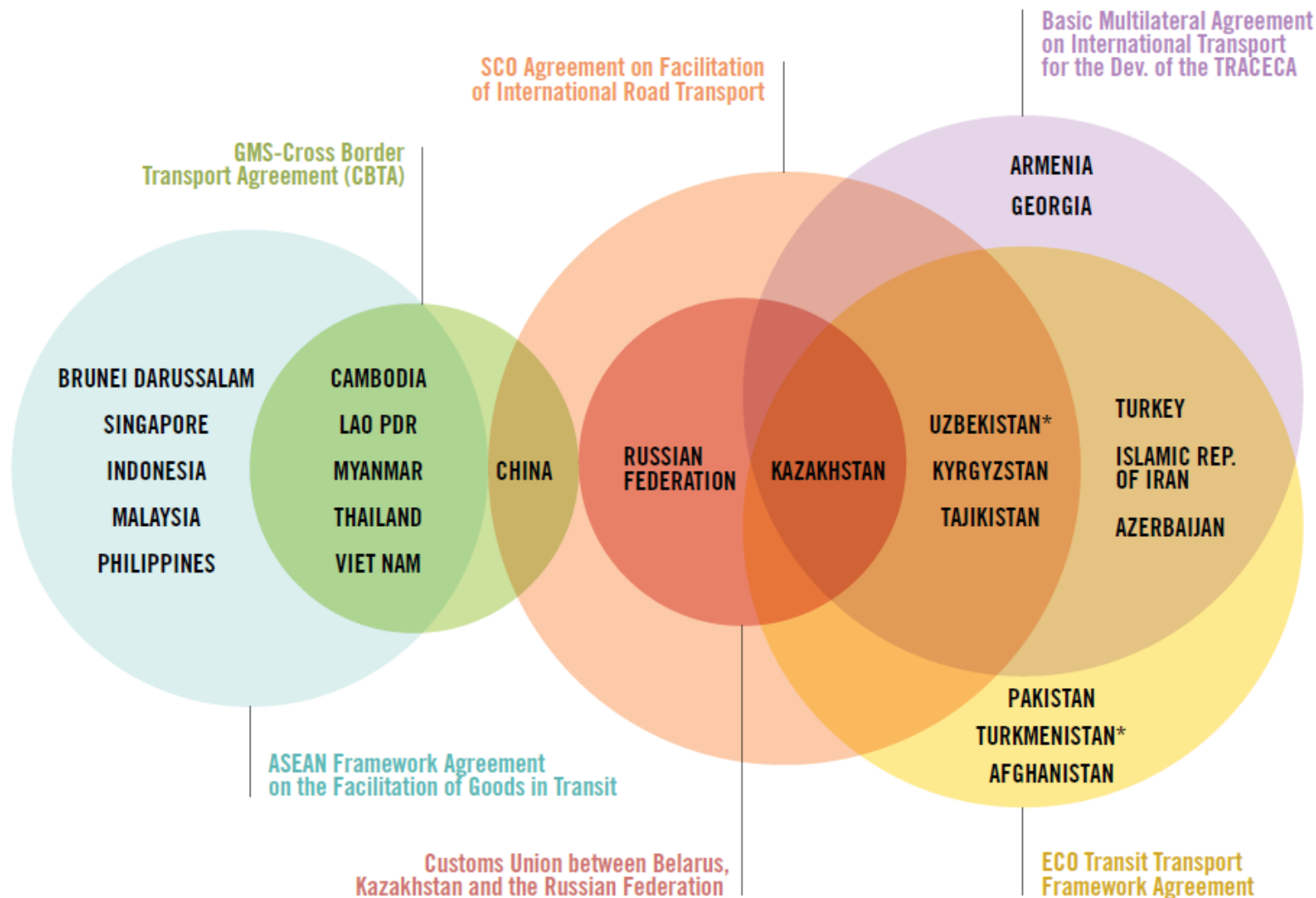
## □ **Bilateral agreements**

- ❖ **More than 100 bilateral/trilateral agreements related to international road transport**
- ❖ **May cause multiple requirements along a single transportation route crossing several borders**

## □ **Subregional Agreements**

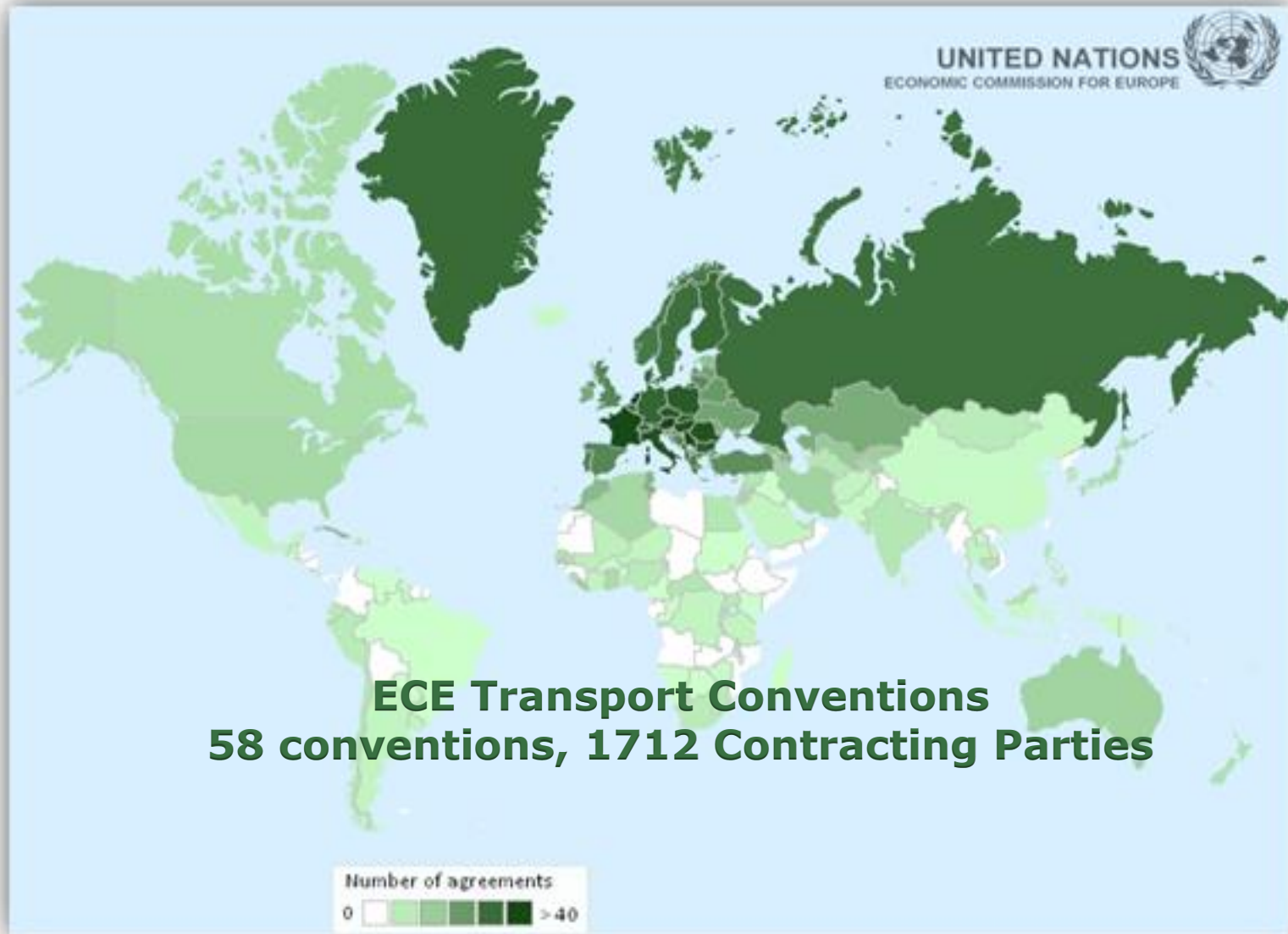
- ❖ **Many different subregional agreements for different subregional organizations**
- ❖ **Mostly designed to support subregional integration initiatives**
- ❖ **Focus on internal needs, aspiration and constraints of the subregion**
- ❖ **Little consideration for movement across the border with neighboring subregions**

# Selected subregional agreements



Source: UNESCAP, Review of Developments in Transport in Asia and the Pacific 2013

# International facilitation conventions



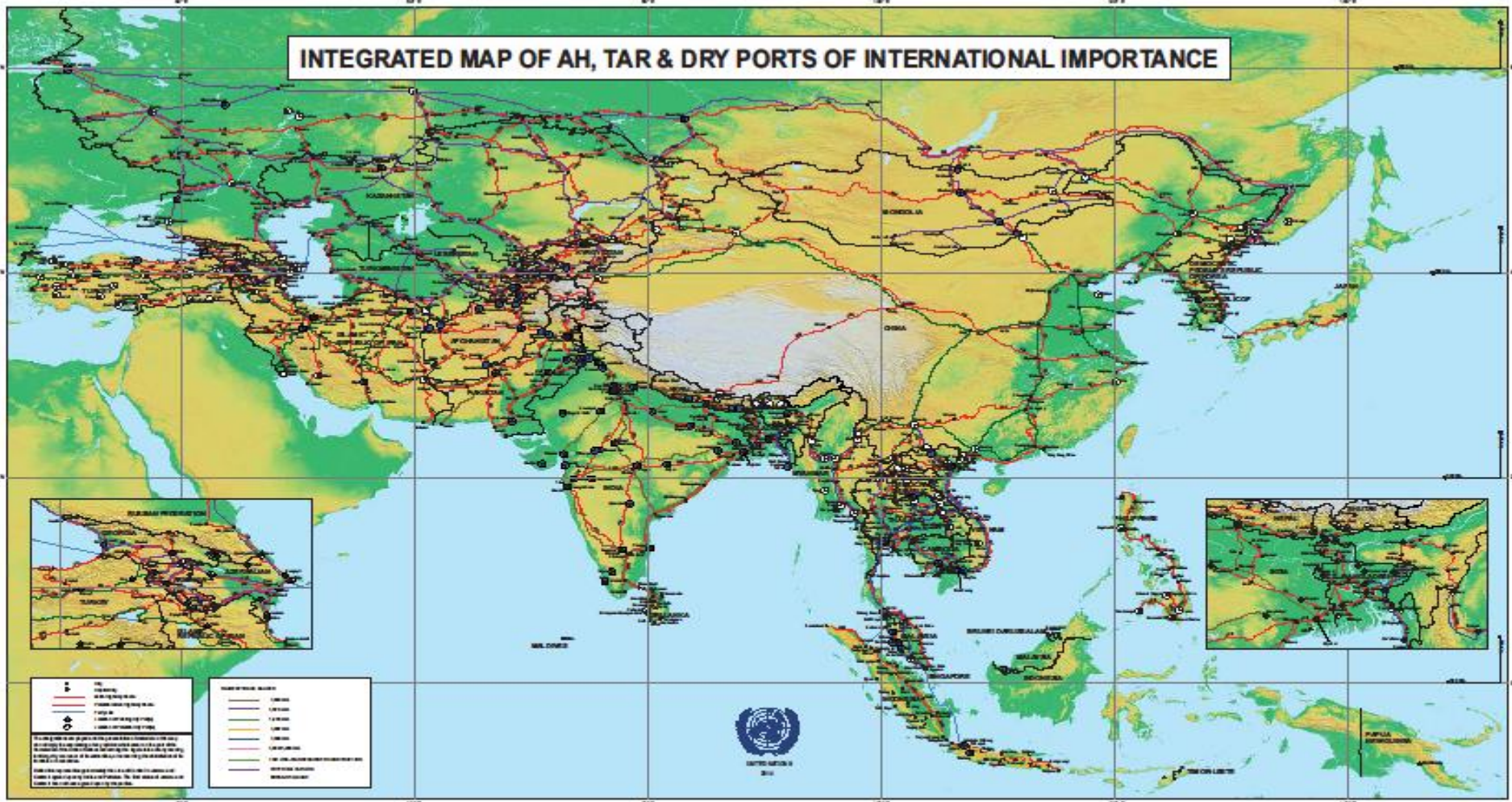
# New approach

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- ❑ **Building an effective legal regime is a lengthy and complex process**
- ❑ **Strategic vision to address challenges for international land transport facilitation.**
  - ❖ **Regional strategic framework for facilitation of international road transport**
  - ❖ **Regional cooperation framework for facilitation of international railway transport**
- ❑ **New tools to improve the efficiency of cross-border transport**
  - ❖ **Efficient Cross-Border Transport Model**
  - ❖ **Model on Integrated Control at Border Crossing**
  - ❖ **Secure Cross-Border Transport Model**

# ESCAP's Long-term Transport Vision

## INTEGRATED MAP OF AH, TAR & DRY PORTS OF INTERNATIONAL IMPORTANCE



Legend of Height



Data Sources

1. Digital Elevation Model: National Oceanic and Atmospheric Administration (NOAA), USA (<http://www.ngs.noaa.gov/wgl/epd/global.html>)
2. Inland water body: The Department of Geography, University of Maryland, USA (<http://www.geog.umd.edu/education/geo-map.html>)

*Th@nk you*

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