Financing, Planning and Programming of Transnational Transport Corridors: UNESCAP Study on Eurasian Transport Corridors

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BACKGROUND:
ESCAP INITIATIVES TO ENHANCE REGIONAL CONNECTIVITY

• Inter Governmental Agreements on Asian Highway, Trans-Asian Railway Networks and the Dry Ports of international importance

• Transport facilitation is inherently challenging:
  • Involves numerous government agencies and countries
  • Different institutional environment
  • Implementation capacities

• Increasing importance of non-physical barriers and need for a comprehensive approach to tackle them. ESCAP member countries adopted the:
  • Regional Strategic Framework for the Facilitation of International Road Transport (2012)
  • Regional Cooperation Framework for Facilitation of International Railway Transport (2015)
COMPREHENSIVE PLANNING OF EURASIAN TRANSPORT CORRIDORS TO STRENGTHEN THE INTRA- AND INTER-REGIONAL TRANSPORT CONNECTIVITY

Infrastructure:
• Review the infrastructure status along the corridors
• Identify gaps: missing links, substandard infrastructure and cross-borders deficiencies
• Compile information on financing options for infrastructure investments
• Perform analysis on land corridors competitiveness vs. sea route

Operational:
• Compile information on operational gaps and cross-borders challenges
• Review current institutional mechanism and legal instruments for cross-border transport operation
• Provide recommendations on transport facilitation
• Propose a more effective and efficient institutional mechanism for smooth operation of the corridors

The study report can be found at:
Transport Corridors

- Intercontinental & multimodal routes
- On the Asian Highway and Trans-Asian Railway networks
- 23 countries
- 47 inland border crossing points
- 36 seaports

Northern Corridor
Central Corridor
Southern Corridor
STUDY FINDINGS ON INFRASTRUCTURE ISSUES
RAILWAY: DIFFERENT GAUGES

**NORTHERN CORRIDOR**

**CENTRAL CORRIDOR**

**SOUTHERN CORRIDOR**

Gauge width, mm
- 1000
- 1000/1435
- 1435
- 1435/1520
- 1520
- 1676

Railway lines
- Under construction
- In operation
- Ferry
ROAD: INFRASTRUCTURE QUALITY

Central Corridor
Northern Corridor
Southern Corridor

Classes of the roads in accordance with Asian Highway classification:
- Primary, Class I, mix of Primary and I
- Class II or mix of Classes I and II
- Class III or mix of Class III with Class I, II or both
- Below III
- Mix of sections below Class III with sections of Class I, II, III
**SUMMARY FINDINGS: CENTRAL CORRIDOR**

**Railway:**
- There are lengthy missing links along some of the routes.
- Three gauge widths that are in use (1435 mm, 1520 mm, 1676 mm) create needs for investment for break-of-gauge related facilities at border crossings or terminals nearby, adding tracks with different gauges to the logistic centers.
- Railways electrification and double-tracking levels are low. Signaling and blocking systems quality is require upgrades.
- Rolling stock is mainly old and obsolete, thus reducing speed on railways due frequent changes of locomotives and wagons and causing potential or present shortage of locomotives and certain types of wagons.

**Road:**
- Road conditions are an issue in some sections along the corridors, i.e. Class III or below.
- In winter, due to winds and snow storms, some mountainous road sections are frequently closed temporarily for snow cleaning; some roads are not accessible for winter session.
**SUMMARY FINDINGS: CENTRAL CORRIDOR**

*Inland terminal facilities and Border Crossing Points (BCP):*

- The inland terminal facilities are insufficient or outdate and while the process of upgrade or construction is on-going in many countries.
- BCP along the central corridor suffer from: long queueing, lengthy inspections, manual processing of the documentation and poor infrastructure such as lack of scanning equipment, under capacity structure, no separate lanes for cargo trucks etc.
- The situation differs from BCP to BCP with some being in better state with recent upgrades in facilities and procedures; the modernization and improvement is nonetheless required at almost all of the border crossings for both rail and road transport.
**SUMMARY FINDINGS:**

**Northern Corridor**

**Railway**
- Some main trunk railway routes are double-tracked electrified. But some single tracked non-electrified sections may cause bottlenecks and undermine overall railway capacity.
- Changes of electrification systems require stops for locomotive changes along the corridors which could cause bottlenecks if processes are not streamlined.
- Break-of-gauge points require additional investments given that delays still occur due to procedures or insufficient capacity of stations.

**Road**
- Sections of Class III road

**Border Crossing Points and Seaports**
- BCPs along the corridors are a source of delays. Their capacity is inadequate for the actual traffic.
- Seaport capacity is well developed at some of the corridors. However, some ports need infrastructure upgrade (facilities, capacity)

**Southern Corridor**

**Railway**
- There are lengthy missing links
- Different railway gauge widths
- Railways electrification and double-tracking levels are low. Signaling and blocking systems quality is require upgrades.
- Rolling stock is mainly old and obsolete, low speed on railways, insufficient rolling stock, safety issues

**Road**
- Road conditions are an issue in some sections along the corridors, i.e. Class III or below.

**Inland terminal facilities and Border Crossing Points (BCP):**
- Room for improvement at border facilities in some of the countries
- Main issues are:
  - 100% inspection of some types of cargos at some BCPs
  - low level of computerization
  - mixed traffic at some road BCPs (no separate lanes for trucks or buses)
  - extensive documentation requirements and manual processing of paper documents
STUDY FINDINGS ON OPERATIONAL GAPS
ROAD: TRAFFIC RIGHTS

CENTRAL CORRIDOR

Road traffic rights exchange and permits along the central corridor by border crossing posts:

- Permit-free bilateral road transport possible, no restrictions on routes or border-crossing posts
- Road transport permit required, with or without restrictions on routes and border-crossing posts
- No traffic rights, transshipment at border, arrangements for entrance at the other side’s border facility may exist

United Nations, Economic and Social Commission for Asia and the Pacific
**OPERATIONAL GAPS: ROAD**

- Traffic rights exchange:
  - No exchange at 6 of 11 road border crossings at the southern corridor, 2 of 15 at the central corridor
  - Permit system in use at 20 of 35 total road border crossings along the three corridors

- Mismatch and disbalance in transport regulations for bilateral/international road transport
  - Designation of routes and extent of access granted
  - Weight and dimension standards
  - Requirements towards driving license
  - Requirements for the third party liability insurance
  - Customs requirements for temporary importation of vehicles and cargos

- Transit is subject to special permits if at all possible
- Cabotage is usually forbidden
OPERATIONAL GAPS: RAILWAY

Railway interoperability
• Geographic limitations in usage of common CIM/SMGS consignment note
• Many missing links in southern corridors; minimal cross-borders connectivity

Procedures and tariffs
• Wagons and containers availability and return time
• Return procedures for containers
• High tariffs

OPERATIONAL GAPS: BORDER CROSSINGS

Most commonly occurring issues:
• Not harmonized transit trade procedures
• Lack of inter-agency cooperation
• Low adoption of advance risk-management technologies
• Delays due to queuing
• Lengthy inspections
• Manual processing of the documents
• Working hours not synchronized between the 2 sides
## Overview of Study Findings

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WAY FORWARD
Way forward: Infrastructure

Investment needs and priority projects

- Railway: missing links, single-tracked sections
- Road: roads below Class III
- Border crossing points with inadequate facilities
- Seaports quality and hinterland connectivity

Examples of institutions that provide financing of infrastructure projects:

World Bank, Asian Development Bank, Asia Infrastructure Investment Bank, BRIC New Development Bank, SCO Development Bank, Silk Road Fund, development agencies of national governments, e.g. JICA, Agence française de développement etc.
RAILWAY INVESTMENT DEMAND

• Make the whole length of the railways double-tracked and electrified and link up the disconnected railway lines.

• About 46 thousand km require upgrading.

• Investments should be prioritized and phased.

• Unit price for laying a second track was estimated to be $4 million/km, and the cost of electrification was estimated at $2.4 million/km. Total costs for missing links as well as the laying of a second track, and/or electrifying the above sections, is in the region of $178 billion. The construction of the missing links might require $29 billion more.

• Improving existing railways on suggested priority sections and for the construction of missing links along the three Eurasian Transport Corridors, is $89.5 billion. Eurasian northern and central corridors account for $31.9 billion (36 per cent) and $15.4 billion (20 per cent) respectively.
ROAD INVESTMENT DEMAND

• The goal is to bring roads up to AH Class II and above along their entire lengths. To achieve this goal, approximately 21 thousand km of roads should be upgraded.

• Rough estimates on the costs of upgrading the above sections are:
  ✓ Countries of the Eurasian Northern Corridor: $1.5-5 million;
  ✓ Countries of the Eurasian Central Corridor: $3.5-5 million;
  ✓ Countries of the Eurasian Southern Corridor: $2.3-5 million.

• Total investments needed for the upgrade of the road routes of the three Eurasian Transport Corridors are estimated at $61.6 billion, distributed quite evenly between the northern, central and southern corridors.

• Priorities are given to:
  ✓ Low quality sections that severely restrict the overall operating efficiency of the road network;
  ✓ Sections lying on, or key to forming, the through-road corridor;
  ✓ Sections that require minimal investments to be brought to AH Class II and above.
INVESTMENT DEMAND IN SEAPORTS, DRY PORTS AND BCPs

• Provision of cost estimates for infrastructure at seaports, dry ports and BCPs a complicated task.

• Key priorities for making the routes of the Eurasian Central Corridor operational and attractive are the ferry lines of the Caspian Sea.
  ✓ Necessary to expand the capacity of ports in Alat, Aktau and Kuryk (south of Aktau), and in Turkemenbashi.
  ✓ Estimates for the investment needed by these ports are $750 million for Alat port, 410 $278 million for Aktau port411 and $2 billion for Turkemenbashi port.

• More dry ports, logistics terminals, and inland container and intermodal facilities are required on all three corridors.
• A rough, tentative estimate of the investment needed for the abovementioned priority dry ports is $8.6 billion
• Existing dry ports and those that have the potential to be marked as priorities for development in Eurasian Central Corridor:
  ✓ Speenboldak in Afghanistan;
  ✓ Sinig-Korpu, Samur, Alat, Astara and Ganja in Azerbaijan;
  ✓ Urumqi in China;
  ✓ Tbilisi in Georgia;
  ✓ Sarakhs and Zahedan in Islamic Republic of Iran;
  ✓ Islamabad in Pakistan;
  ✓ Volgograd in the Russian Federation;
  ✓ Vahdat, Dushanbe and Nizhniy Panj in Tajikistan;
  ✓ and Istanbul, Bilecik, Eskisehir, Izmit, Kayseri, Sivas and Erzurum in Turkey;
Components of a Transport Corridor:

- infrastructure links, minimum standards for infrastructure, minimum standards for rehabilitation and maintenance of infrastructure
- border crossing points, laws and regulations, Customs, inspections
- information, monitoring, etc.

- Subregional Agreements
- Bilateral Agreements
- International Corridor Management models
SUBREGIONAL AGREEMENTS
WAY FORWARD: INSTITUTIONAL ARRANGEMENTS

“One of the main challenges is to come to good governance and management of the transport corridors, which require optimal coordination and cooperation amongst all countries involved, and the integration of planning mechanism and information systems related to the corridors”

Examples of institutional structure for the governance and management of Transport Corridors:

• Transport Corridor Authority
• Transport Corridor Coordination Committee
• Transport Corridor Observatory

All stakeholders should be involved: government officials of countries along the corridor (central and local level), private sector (e.g. transport and logistics service providers and relevant business/trade associations), financing institutions, knowledge institutions etc.
WAY FORWARD: FACILITATION

ESCAP Transport Facilitation Tools

Regional Frameworks
• Regional Strategic Framework for the Facilitation of International Road Transport
• Regional Cooperation Framework for Facilitation of International Railway Transport

Eight mutually complementary models
• Time/Cost-Distance Methodology
• Secure Cross-border Transport Model
• Model on Integrated Controls at Border Crossings
• Efficient Cross-border Transport Model
• Standard Model for Logistics Information System
• Model Bilateral Agreement on International Road Transport
• Model Subregional Agreement on Transport Facilitation
• Model Multilateral Permits for International Road Transport
Thank you!

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