Deepening digitalization of railways in the ESCAP region
Possible issues and way forward

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UNITED NATIONS
ESCAP
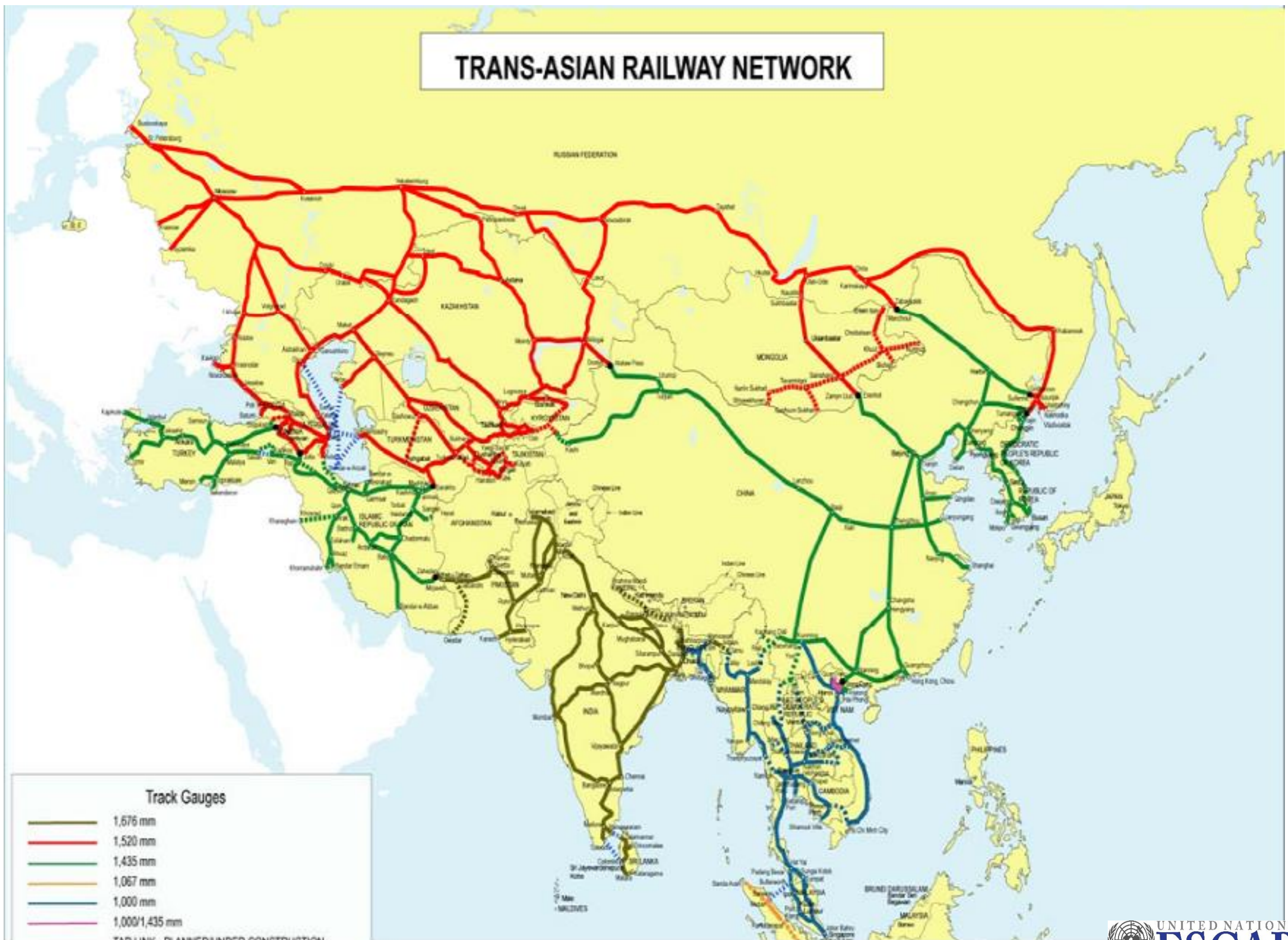Economic and Social Commission for Asia and the Pacific

Outline

1. Intergovernmental Agreement on Trans-Asian Railway Network

2. Why, what and how of digitalization of railways in ESCAP region

3. Current work and future priorities to strengthen railway transport

TRANS-ASIAN RAILWAY NETWORK

Track Gauges

———	1,676 mm
———	1,520 mm
———	1,435 mm
———	1,067 mm
———	1,000 mm
———	1,000/1,435 mm

TAR LINK - PLANNED/UNDER CONSTRUCTION

Trans-Asian Railway Network formalized through intergovernmental agreement entered into force in 2009. Soon have 21 contracting parties

Developed by ESCAP members as a *coordinated plan* to develop a *regional railway network* to meet the growing needs of *intra and interregional trade and transport*

The Working Group under the agreement provides a *regional platform* for the member countries to discuss *persistent and emerging issues in* international railway transport along the network. Six meetings- focus on operational issues

Why deepen digitalization in railways? Do we have an option

❑ *Challenges for sustainability of transport- other modes rapid progress*

❑ *Resilience shown by international railway transport during pandemic*

❑ *Pandemic crisis has provided an opportunity for Railways of region to accelerate digitalization*

❑ *A lever to strengthen competitiveness for railway transport along the Trans-Asian Railway network – digitalization would support railways in*
  - *Enhancing operational efficiency*
  - *Lowering costs over medium to long run*
  - *Customer experience and satisfaction*
  - *Seamless connectivity with other modes of transport*

What are the challenges in digitalization of railways in the region

❑ Digital divide- communication infrastructure

❑ Fragmented levels of development in railways – silo approach

❑ Investments in digital infrastructure, research and innovation

❑ Capacity of railway and transport officials – digital skills and need for a cultural shift to digital transformation- reorganization of business processes

❑ Data management/protection and cyber security

How can the challenges be overcome

❑ *Develop national strategy for digitalization of railways (Russian Railways) - estimated economic impact USD 5.2 billion*

❑ *Encourage active national stakeholder consultations particularly with private sector participation in developing action and implementation plans*

❑ *Enhance capacity of railway and transport officials*

❑ *Widen international cooperation for* **developing synergies**, **sharing experiences** *and developing a regional/subregional plans for* **identifying issues for harmonized approaches for digitalization in railways**

❑ *Establish a* **railway innovation and digital fund** *to act as catalyst for digitalization of railways in the region to bridge financing gap*

Current initiatives to strengthen international railway transport

To enhance efficiency of international railway transport, particularly post COVID-19, ESCAP is working on following issues following

1. Developing a *comprehensive online database* for Trans-Asian Railway Network

2. Supporting *electronic information exchange among railways and between railways and control agencies*

3. Guidelines on *harmonized customs formalities for transit* for international railway transport

4. Support countries in establishing *corridor management mechanism* for railway corridors

5. Developing *smart railway solutions* in such areas as operations, maintenance, break of gauge and energy efficiency

6. Explore potential for developing a framework for *digitalizing railways in the ESCAP region*

7. Enhancing *sustainability of railway transport* by supporting member countries in *decarbonizing railways*

8. Encourage *modal shift towards rail* and mainstreaming railway transport in national plans to support realization of 2030 Agenda

Analytical and knowledge products on international railway transport

Studies

Border crossing practices in railway transport

Enhancing interoperability to facilitate international railway transport

Electronic information exchange systems for international railway transport

Railway Electronic Information Systems and their Linkages with Customs Systems

Blogs

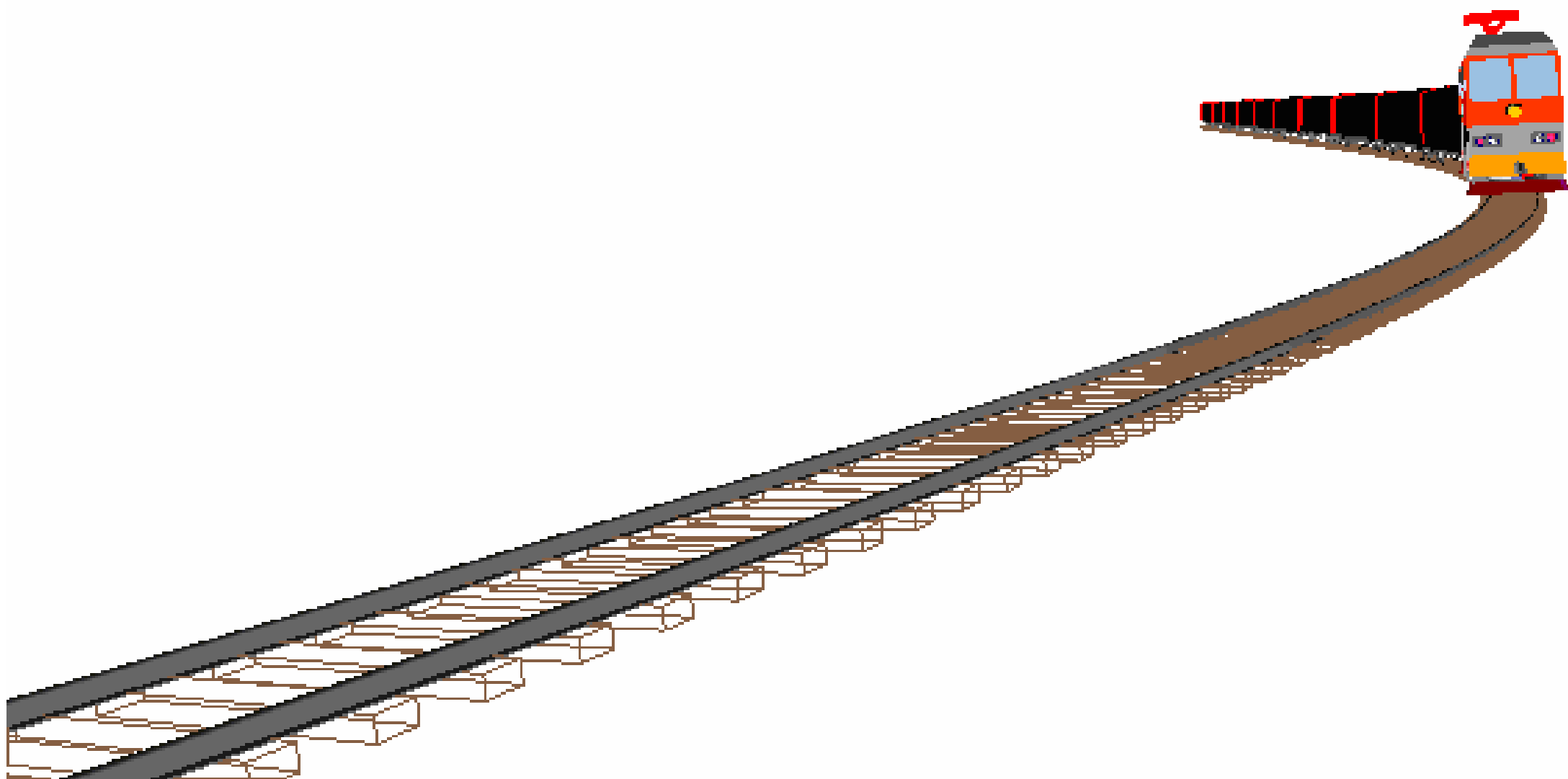**Five Years Into The 2030 Agenda: Time To Give A Big Push To Railway Transport 03 December 2019**

COVID-19 Pandemic: International Freight Trains Lead The Way Into Future 04 May 2020

Policy Brief

COVID-19 and its impact on Railway sector in Asia and the Pacific November 2020

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