



**DECADE
OF >>>
ACTION**



Smart Railway Solutions
To support railways in addressing challenges
due to pandemic

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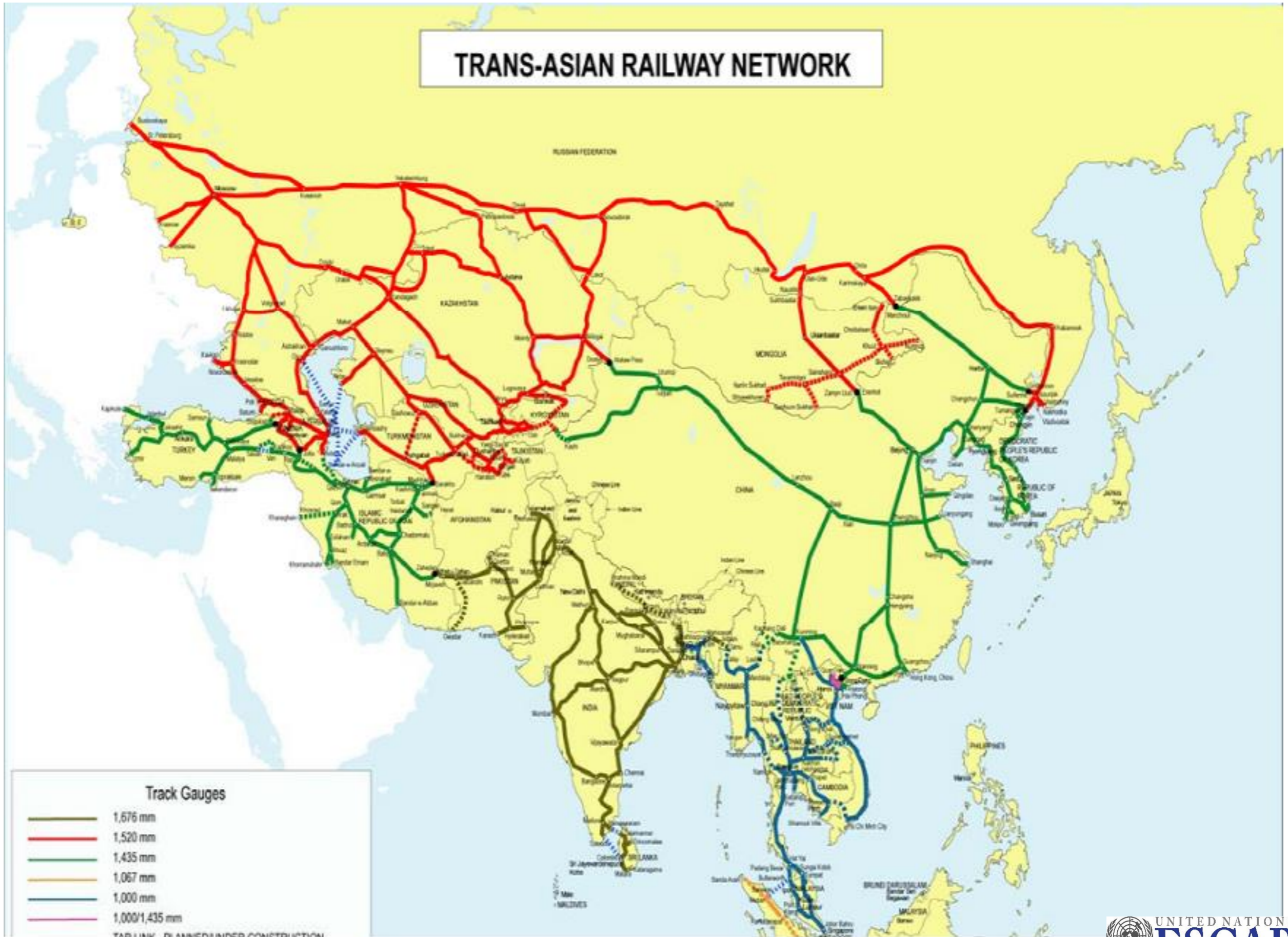


Outline

1. Intergovernmental Agreement on Trans-Asian Railway Network
2. Smart Railway Solutions - rationale
3. Smart Railway Solutions



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

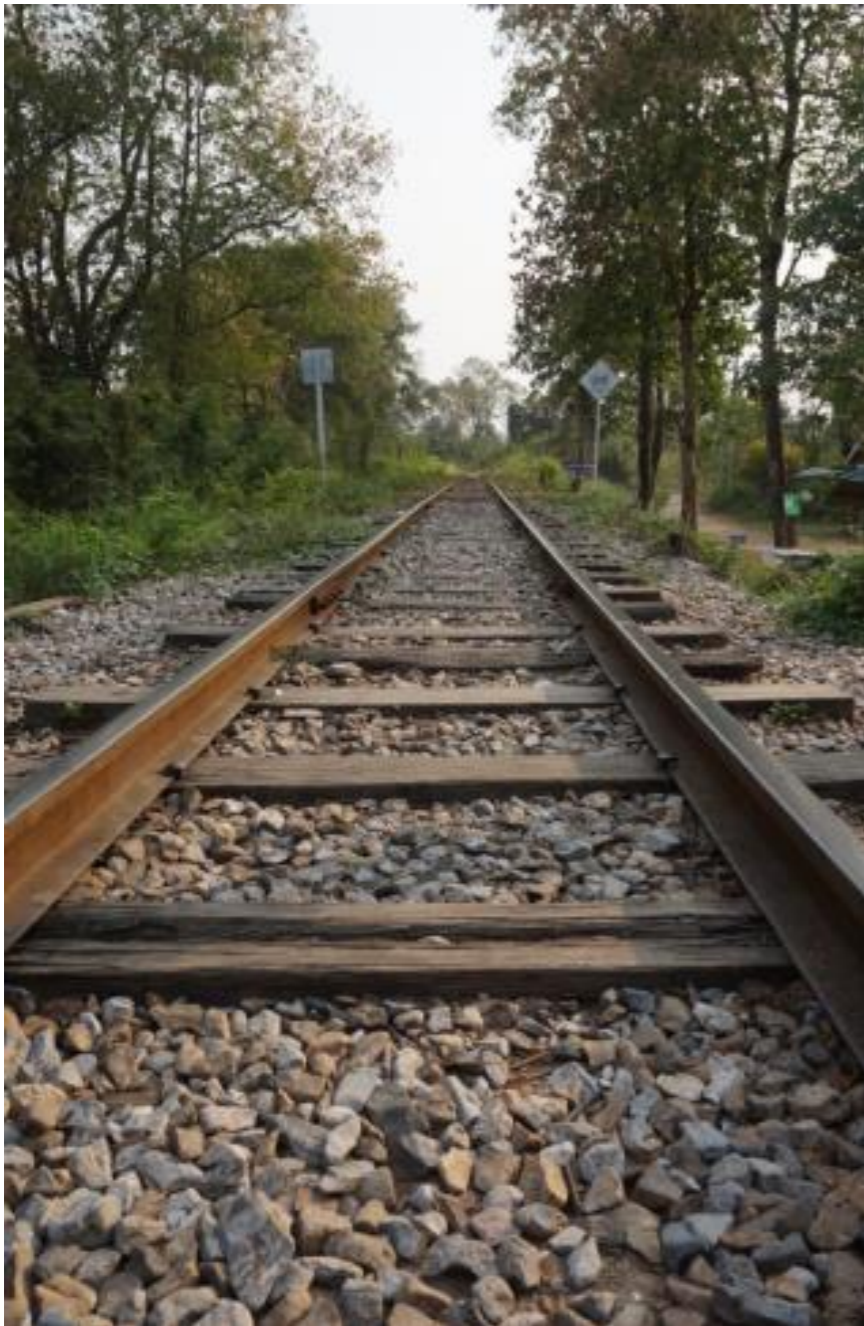
TABLE 1.1. RAILWAY NETWORK CONSTRUCTION

Intergovernmental Agreement on Trans-Asian Railway Network

Trans-Asian Railway Network formalized through intergovernmental agreement entered into force in 2009. Has now 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 Smart Railway Solutions

- ❑ Emerging trends in international railway transport along Trans-Asian Railway Network
 - ✓ New routes for international railway transport
 - ✓ New rail infrastructure
 - ✓ New services along the Trans-Asian Railway network
 - ✓ New alliances to promote international railway freight

- ❑ Common priorities of the railways of members of Trans-Asian Railway Network
 - ✓ Railway network development
 - ✓ International railway transport
 - ✓ Shift to rail initiatives
 - ✓ Sustainability
 - ✓ Digitalization and automation

Why Smart Railway Solutions

- ❑ Effects of pandemic on railway transport over short, medium and long run; resilience shown by international railway transport during pandemic
- ❑ Short term demand upside may not persist in medium term and if pandemic prolongs it could overall decrease demand and the short-term disruptions to supply chains could become permanent and may lead to suspension of some services
- ❑ Crisis provides an opportunity for railway to enhance their comparative advantages by systemically improving efficiency and effectiveness of railway systems

What are Smart Railway Solutions

Smart Railway Operations

A1 - Automation of Terminals

A2 - Advanced Traffic Management Systems

A3 - Automation of Train Driving

Smart Railway Maintenance, Safety and Security

B1 - Condition-Based and Predictive Maintenance

B2 - Others (railway safety)

Smart Railway Financing

F1 - Green and Sustainable Financing

F2 - Modelling

What are Smart Railway Solutions

Smart Railway Border Crossing

D1 - Electronic Information/Data Exchange

D2 - New Technologies for Efficient and Secure Border Crossing (Electronic seals)

D3 - Railway Consignment Note as a Customs Document

D4 - Efficient Break of Gauge Operations

D5 - Joint Border Controls

D6- Railway – Customs electronic interface

Smart Railway Customer Orientation

E1 - Railway freight mobile application

E2- Others

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

Future work to strengthen international railway transport and linkages with Agenda 2030



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](#)

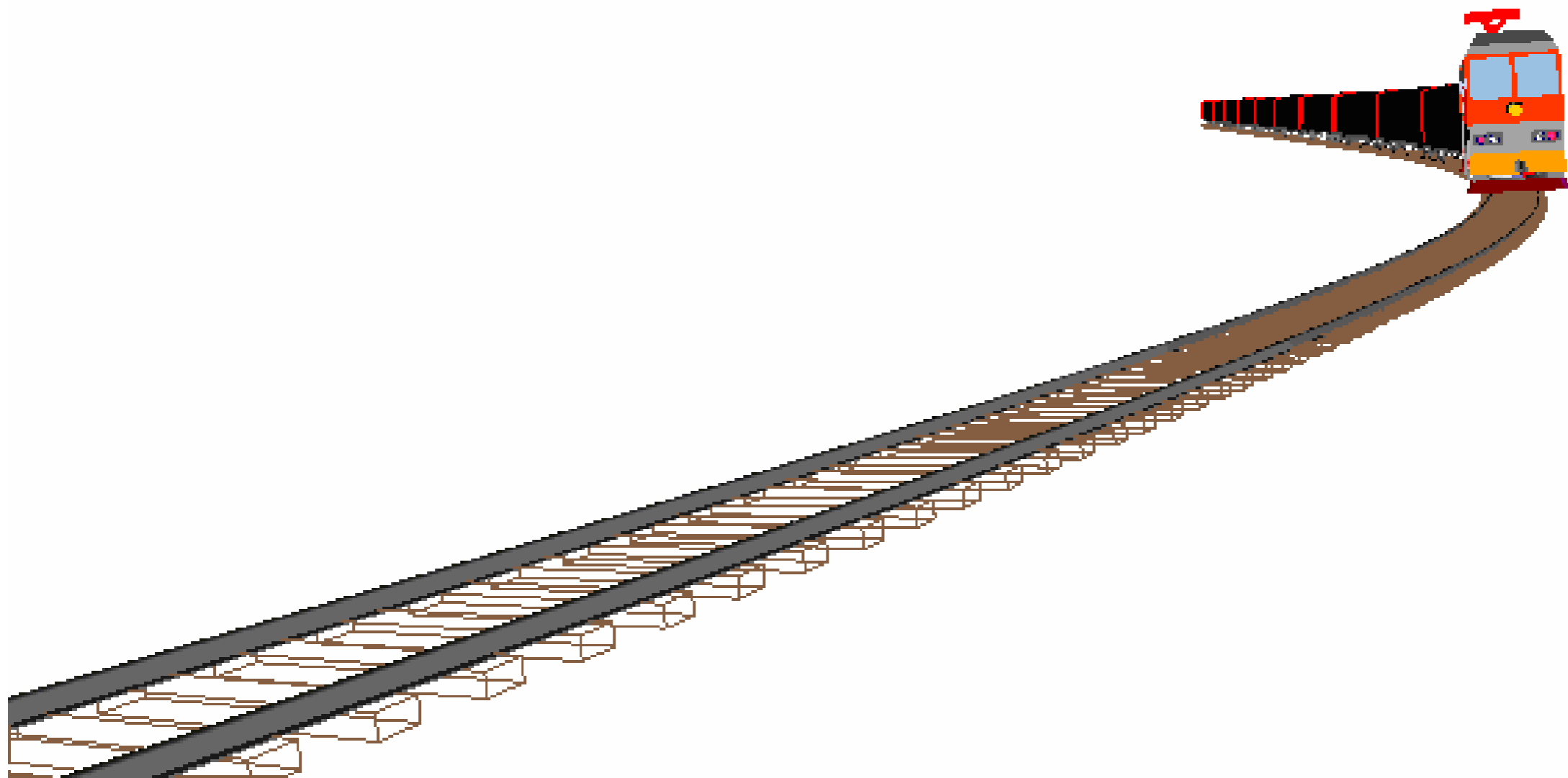
[Agenda: Time To Give A Big Push To Railway Transport 03 December 2019](#)

[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



Investing in resilience and shift to sustainable freight

Enhancing shift towards sustainable freight in ESCAP region

ESCAP UNDA project on Enhancing Shift towards Sustainable Freight Transport in Asia-Pacific with overarching objective to mainstream sustainability in freight transport operations

National assessments in the four target countries are being undertaken for developing national strategies on deepening sustainability in the freight transport for possible adoption by the concerned governments

Focus on (a) enhancing institutional capacity (b) diversified sources of financing and (c) use of transformative transport technologies

Investing in resilience and shift to sustainable freight

Enhancing shift towards sustainable freight in ESCAP region

Deepening regional cooperation on key issues in sustainable freight transport by evolving consensus and their possible consideration within the framework of ESCAP's intergovernmental agreements

Coordinated action at the regional level could include consensus on such initiatives as:

- Modal shift
- Deepening the sustainability of railway and road transport
- Decarbonization and digitalization

Thank you
for
your attention

<http://www.unescap.org/our-work/transport>

