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

Final Draft
19 March 2015

UNITED NATIONS ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

REGIONAL COOPERATION FRAMEWORK FOR THE FACILITATION OF INTERNATIONAL RAILWAY TRANSPORT

This document has been issued without formal editing.

Final Draft
16 March 2015

REGIONAL COOPERATION FRAMEWORK FOR THE FACILITATION OF INTERNATIONAL RAILWAY TRANSPORT

The growing intraregional trade on one hand and increasing concerns about energy security and adverse effects of transport on the environment on the other have made countries of the Asia-Pacific region more appreciative of the role of railways as an efficient, safe and environmentally sound mode of transport. The entry into force of the Intergovernmental Agreement on the Trans-Asian Railway (TAR) Network in 2009 signaled the readiness of member countries to cooperate on railway projects of international importance and work together on the development of efficient railway transport corridors to serve growing intra-regional trade.

The outcome document of the United Nations Conference on Sustainable Development (Rio+20) "The future we want" emphasized sustainable transport being central to sustainable development bringing sustainable transport high on the agenda on the global development. This has provided a renewed impetus to develop the environmentally sound railway transport that is efficient, competitive and also complements other modes of transport.

Despite the region's continued rise in containerized trade and the inherent advantages of railway transport to efficiently carry large volumes of goods over long distances, most railway operators in the region have failed to capitalize on the increase in international trade in all but a marginal way. In particular, despite the launch of a number of international container block-train services, they are still struggling to establish themselves as an efficient alternative to either shipping or long-haul road transport in the eyes of many shippers.

A number of reasons explain this situation. Some are endemic to railways, while others are external and beyond their control. Internally, railway operators in the region are often not geared for quick response in identifying new opportunities and defining related intermodal services. Externally, international railway transport remains difficult in the region and between Asia and Europe due to numerous non-physical

barriers, particularly at the border crossings, which cause excessive delays, high costs and uncertainties in the entire transport process.

Typical non-physical barriers include regulatory issues that relate to control measures by various agencies, such as Customs, which take significant time of train operations. There are also legal issues that underlie the legal and contractual basis among countries and various stakeholders in railway transport. The different legal regimes need to be unified or at least harmonized. Technical and operational issues involving standards and specifications for the rolling stock, signaling systems, data exchange, repair, maintenance and use of railway infrastructure, and break of gauge also need to be addressed to promote cross-border railway transport operations.

There will be a need to simplify, standardize and further harmonize technical and operational requirements among member countries and will need action at government level.

Legal and technical issues were partly addressed among the member countries of two international railway organizations[1], but substantial differences on these issues persist between these organizations. Also, there are many countries in Asia that are not the member of any international railway organization. In addition, the regulatory issues require further streamlining so that they do not impede the railway operations. Safe, secure, efficient and smooth railway transport needs common and coordinated facilitation measures among member countries in the region.

Simplification, standardization and harmonization are long process to accomplish. Early action is needed by member countries and their development partners under a common framework.

The Regional Cooperation Framework may be used by member states and their development partners in harmonizing requirements for international railway transport across the region with an ultimate objective of having a regional agreement on the facilitation of international railway transport.

[1] Two international organizations in rail transport are the OSJD (Organization for Cooperation of Railways) and the OTIF (Intergovernmental Organization for International Carriage by Rail).

The Regional Cooperation Framework identifies four fundamental issues in the facilitation of international railway transport and eleven areas for cooperation among member countries and their development partners to further promote and support international railway transport in the region. Note is also provided for further elaboration of the fundamental issues and the areas for cooperation.

A. Fundamental Issues for the Facilitation of International Railway Transport

1. Standards for railway infrastructure, facilities and equipment

Description of the issue

Safe and efficient operation of cross-border railway requires high level of standardization of railway infrastructure, facilities and equipment. Currently, they are not standardized among countries and cause difficulties in cross-border railway transport. Apart from different track gauges, difference exist in braking systems, axle load, signalling systems, coupling system, electric power voltage. This prevents efficient and smooth cross-border train operations.

Target

Common minimum technical standards for railway infrastructure, facilities and equipment in international railway transport to facilitate railway transport in the region.

Process

The Regional Network of Legal and Technical Experts for Transport Facilitation may be entrusted to study and recommend minimum technical standards for international railway transport for adoption by the member countries to be implemented in a phased manner.

Furthermore, numerous railway research facilities exist in member countries. It is suggested to identify one such research facility in each subregion that may take lead to support the standardisation of technical and operational requirements for cross

border railway transport in collaboration with the countries in the subregion and international organizations.

Member countries may also undertake studies, organise regional/subregional seminars, workshops involving all stakeholders to identify gaps between the existing railway systems and the standards. Based on them, national plans may be formulated to incorporate relevant standards in their railway systems in a phased manner.

2. Break-of-Gauge

Description of issue

The main railway lines in the TAR network incorporate five different track gauges, i.e. 1,676 mm, 1,520 mm, 1,435 mm, 1,067 mm and 1,000 mm. Different track gauges prevent continued movement of rolling stock across border. It is often considered as a physical obstacle to the smooth flow of traffic. In fact, it is also an issue of transport facilitation. Long delay for passenger and freight transport has been observed at the border crossings with break- of- gauge. Partly, the delay is caused by trans-loading of goods or bogie change at the border crossings and partly by inordinate delays in organization of trans-shipment.

Target

Significant reduction in time spent to overcome break-of-gauge at the border interchange stations by developing among others- streamlined operating procedures.

Process

A number of technical solutions exist to deal with break-of-gauge. These solutions include trans-shipment, bogie changing, use of wagons with 'variable-gauge' bogies, provision of dual gauge and conversion of different track gauges to a single gauge standard:

(i) Trans-shipment/transfer is the transfer of freight by manual or mechanical means from wagons of one gauge to wagons of another directly or

indirectly through platform, yard, storage or warehouse; the transfer of passengers from one train to another train.

(ii) Bogie changing is the operation by which wagons are lifted on a set of jacks, bogies of one gauge rolled out and bogies of the other gauge rolled in.

(iii) Use of wagons with 'variable-gauge' bogies enables wagons to be pulled along a special transition track at reduced speed. During the process, the distance between wheels is adjusted from one track gauge to another.

(iv) Provision of two different track gauges is made on a single track foundation through the insertion of a third rail (or sometimes a fourth rail to obtain the so-called 'composite gauge').

(v) Conversion of tracks of different gauges to a single gauge standard is to build or re-build tracks in the same standard.

The use of the solutions (i), (iv) and (v) is seen for both passenger and cargo transport. The solutions (ii) and (iii) are mainly used for passenger transport.

While continuity of gauge along all routes of the TAR network would be ideal, a break-of-gauge does not constitute an impassable barrier to efficient services. In fact, it has been observed that the time for passport control over passengers is longer than the time for bogie change at some border crossings.

With limited exception, break-of-gauge occurs mostly at border crossings where a range of operations already require trains to stop. These operations are requirements of railways (e.g. change of locomotives, change of crew, technical inspection for acceptance of wagons, safety inspection for dangerous goods) and the requirements of other control agencies (e.g. Customs, immigration, security checks, sanitary inspection).

Well-designed facilities and well-organized procedures can allow for trans-shipment to take place within the time allocated for these other operations. A streamlined operating procedure may be developed for the border interchange stations detailing normal expected time for each mandated operation and indicating operations that can be carried out in parallel so that overall time to complete the border crossing formalities and deal with break-of-gauge is minimized.

The streamlined operating procedure can be in two parts one which is general and is applicable to all the border interchange stations and second part can be tailored to the requirement of particular border crossing. In addition, member countries may keep themselves abreast of the latest developments to make transhipments more efficient.

3. Different legal regimes for railway transport contracts

Description of the issue

Unlike air or maritime transport[2], there is no single inter-governmental organisation for railway transport. Two major international organisations for railway transport, OTIF and OSJD, developed different set of legal documents for the railway transport. The consignment note is an essential legal document for railway transport. The two main railway consignment notes are, i.e., SMGS for OSJD members and CIM for OTIF members.

The railway transport among countries having same legal arrangements does not cause as much challenge as when railway transport is between countries with different legal regimes. To overcome the challenges of re-consignment a common CIM/SMGS Consignment Note was introduced in 2006. The common CIM/SMGS consignment note is building a bridge between the different legal regimes of CIM and SMGS that intends to remove the obstacle. Behind each CIM/SMGS consignment note, there is a contractual link between those involved in the CIM or SMGS regions between the consignor of the goods, the carrier and the consignee. By this way, the common CIM/SMGS consignment note provides greater legal certainty.

It was reported that more than half of the international traffic associated with re-issuance of documents under either SMGS or CIM was carried through the use of the common consignment note. So far, seven TAR countries are using the common consignment. In addition, China started trial use of it for transport of goods to Europe in 2012.

[2] International Civil Aviation Organization (ICAO) for air and International Maritime Organization(IMO) to regulate maritime transport

Target

Alignment of the consignment note currently being used in railway transport to common consignment note to facilitate international railway transport.

Process

With increase in Euro-Asian traffic, it is expected that the use of the common consignment note will further expand in international railway transport among the member countries of OSJD and OTIF. Other TAR member countries may not formally use the common consignment note before their accession to either of the two organizations, or their railway lines are not connected with the member countries of the two organizations at present.

However, as foreseen from the trend in the development of international railway transport among the countries, their railways lines will be linked to the entire regional network and international railway transport will increase in the short to medium term.

These countries may consider to gradually aligning their consignment notes with the common consignment note to improve the current documents and avoid the future possible difficulties in change.

4. Coordination of regulatory controls and inspections at border-interchange stations

Description of issue