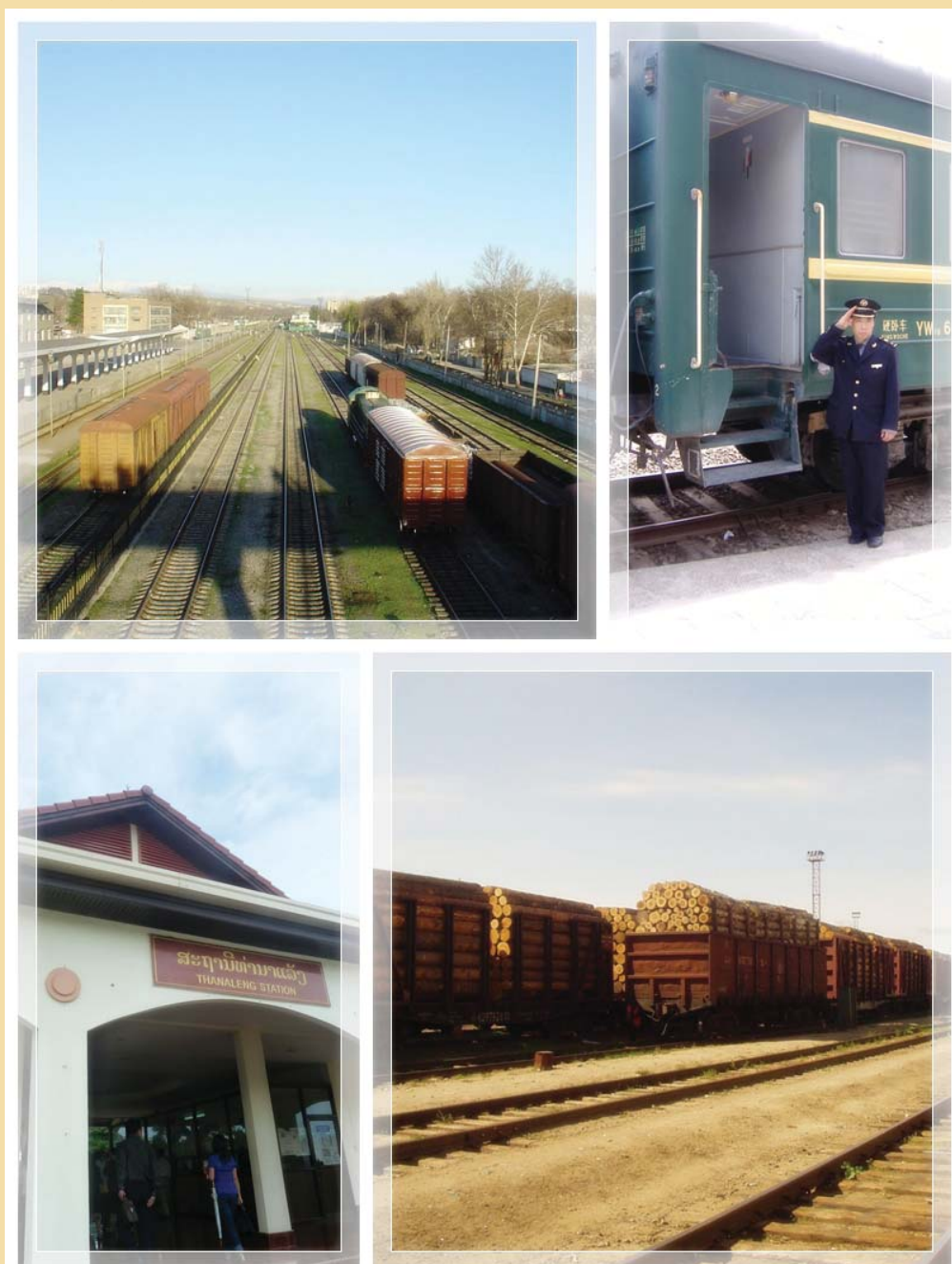




# Monograph Series on Transport Facilitation of International Railway Transport in Asia and the Pacific

(First Edition)



**ST/ESCAP/2681**

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## I. BACKGROUND

The growing intraregional trade on one hand and increasing concerns about energy security and adverse effects of transport on environment on the other has made countries of the 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 Network in 2009 signaled the readiness of governments to cooperate on railway projects of international importance and work together on the development of efficient rail transport corridors to serve growing intra-regional trade.

The outcome document of Rio+20 conference “The future we want” emphasized sustainable transport being central to sustainable development bringing sustainable transport high on the agenda on the global development community. 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 rail 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. These measures need to be simplified, standardized and harmonized, than there are 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 dealing with break of gauge also need to be addressed to promote cross-border railway transport operations. There will be 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<sup>1</sup>, 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.

Accordingly, this study on regional railway facilitation undertaken under the project “Enhancing the operationalization of the Trans- Asian Railway- Costing, marketing and facilitation of railway services” financed by the Government of the Russian Federation provides background, current status on the state of railway facilitation, elaborates on the key challenges and possible solutions to further facilitate international railway transport in the

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<sup>1</sup> Two international organisation in rail transport are the OSJD( Organisation for Cooperation of Railways) and the OTIF( Intergovernmental Organisation for International Carriage by Rail ).

region. The study is mandated by the Regional Action Programme for Transport Development in Asia and the Pacific, phase II (2012-2016).

The study findings will be presented to the regional meeting to be held in 2014 and a common strategy/framework on cooperation for facilitation of international railway transport will be formulated detailing actions and modalities for safe, secure, efficient and smooth railway transport in the region and between Asia and Europe.

## II. CURRENT OPERATIONAL STATUS OF INTERNATIONAL RAILWAY TRANSPORT IN THE REGION

### A. Operational status of railway lines

#### 1. Operational status of railway lines among OSJD members in the region

There are 13 OSJD members in the ESCAP region: Azerbaijan, China, Democratic People's Republic of Korea (DPRK), Georgia, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan, and Viet Nam. Railway connection exists between most neighbouring countries serving both freight and passenger services. The services are listed in Table I.

Table 1. Operational status among OSJD members in the region<sup>2</sup>

OSJD members	Main border crossing <sup>3</sup>	Break of gauge	Freight services	Total rail freight handed over in 2011(thousand tons)*	Passenger services	Scheduled Frequency of Main Connections
Azerbaijan – Russian Federation	Yalama - Samur	No	Yes	960/ 4,651	Yes	Baku - Moscow three times per week, Baku - St Petersburg once per week.
Azerbaijan – Georgia	Bejuk – Kjasik - Garbadani	No	Yes	9,982/ 2,358	Yes	Baku-Tbilisi daily.
Azerbaijan – Iran	Astara	Yes	Yes	30/ n/a	No	-
China – DPRK	Dandong – Sinuiju	No	Yes	522/ n/a	Yes	Pyongyang and Beijing, four times per week.
China – Russian Federation	Manzhouli - Kabaykalsk	Yes	Yes	24,452/ 23,591	Yes	Beijing – Moscow twice per week via Irkuck. Harbin – Moscow once per week, Harbin – Vladivostok twice per week, Harbin - Chanbarovsk twice per week.
China - Mongolia	Erlian – Zamyin-Uud	Yes	Yes	9,116/ 5,639	Yes	Beijing – Ulaabator twice per

<sup>2</sup> Based on OSJD Bulletin of statistical data on railway transport for 2011 (2012), and EuroAsia Rail 2013.

<sup>3</sup> Based on cargo volume

\*Figures indicate direction of cargo vice versa

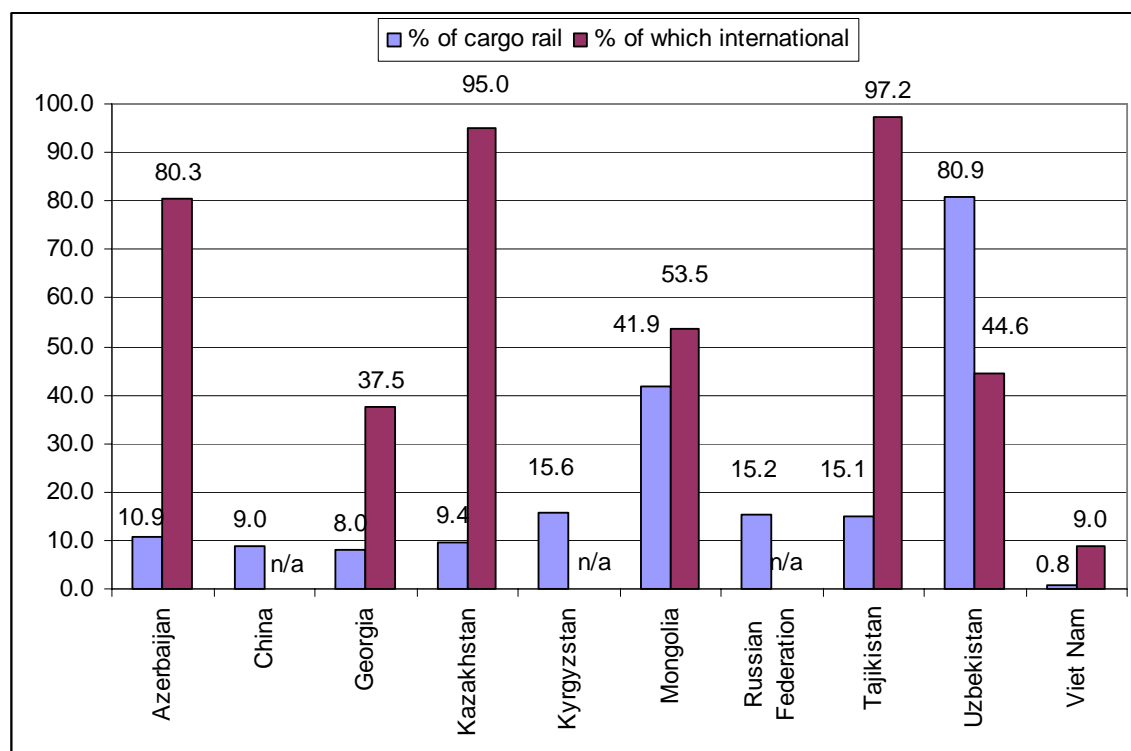


OSJD members	Main border crossing <sup>3</sup>	Break of gauge	Freight services	Total rail freight handed over in 2011(thousand tons)*	Passenger services	Scheduled Frequency of Main Connections
						week. Huhehaut – Ulaanbator twice per week.
China - Kazakhstan	Alashankou - Dostyk	Yes	Yes	15,160/9,084	No	-
China - Viet Nam	Piangxing – Dong Dang	Yes	Yes	646/117	Yes	Beijing – Hanoi twice per week. Hanoi – Nanning daily train.
DPRK – Russian Federation	Tumangang – Khasan	Yes	Yes	n/a / 128	Yes	Moscow - Pyongyang daily train.
Georgia – Russian Federation	Veseloe – Gantiadi	No	Yes	n/a / 219	No	-
Islamic Republic of Iran – Turkmenistan	Sarakhs - Sarakhs	Yes	Yes	n/a / 2,322	No	-
Kazakhstan - Russian Federation	Pavlodar - Barnaul	No	Yes	76,179/24,500	Yes	Moscow – Almaty, Astana-Moscow, and Astana – St Petersburg daily.
Kazakhstan - Uzbekistan	Sary-Agach - Keles	No	Yes	15,963/5,169	No	-
Kazakhstan - Kyrgyzstan	Lugoyava - Bishkek	No	Yes	4,215/852	Yes	Bishkek – Almaty daily.
Kyrgyzstan – Uzbekistan	Karasu	No	Yes	181/589	No	-
Mongolia – Russian Federation	Sukhbaatar - Nauhski	No	Yes	327/1,419	Yes	Erdenet – Moscow weekly, Moscow – Ulaanbator twice per week via Irkutsk, and daily train Ulaanbator – Irkutsk.
Tajikistan - Uzbekistan	Istikol - Kudukly	No	Yes	4,666/4,389	No	-
Turkmenistan - Uzbekistan	Kelif - Khodzhayavlet	No	Yes	4,044/3,309	No	-

There are large differences between the use of rail for transport of goods and passengers between OSJD members in the region. Figure 1 show the percentage of cargo transported via railway and the percentage of the railway cargo that is international (import, export or transit). For most OSJD countries, railways contribute to a small proportion of overall cargo traffic. Only in the case of Mongolia and Uzbekistan the proportion of rail cargo it is higher at 42 and 81 per cent respectively. Further, with the exception of Viet Nam, all

countries for which data is available, international cargo traffic by rail contributes to more than 37 per cent of total rail cargo. The figures for Azerbaijan, Kazakhstan and Tajikistan are 80, 95 and 97 per cent respectively, indicating important role of railways in movement of international goods.

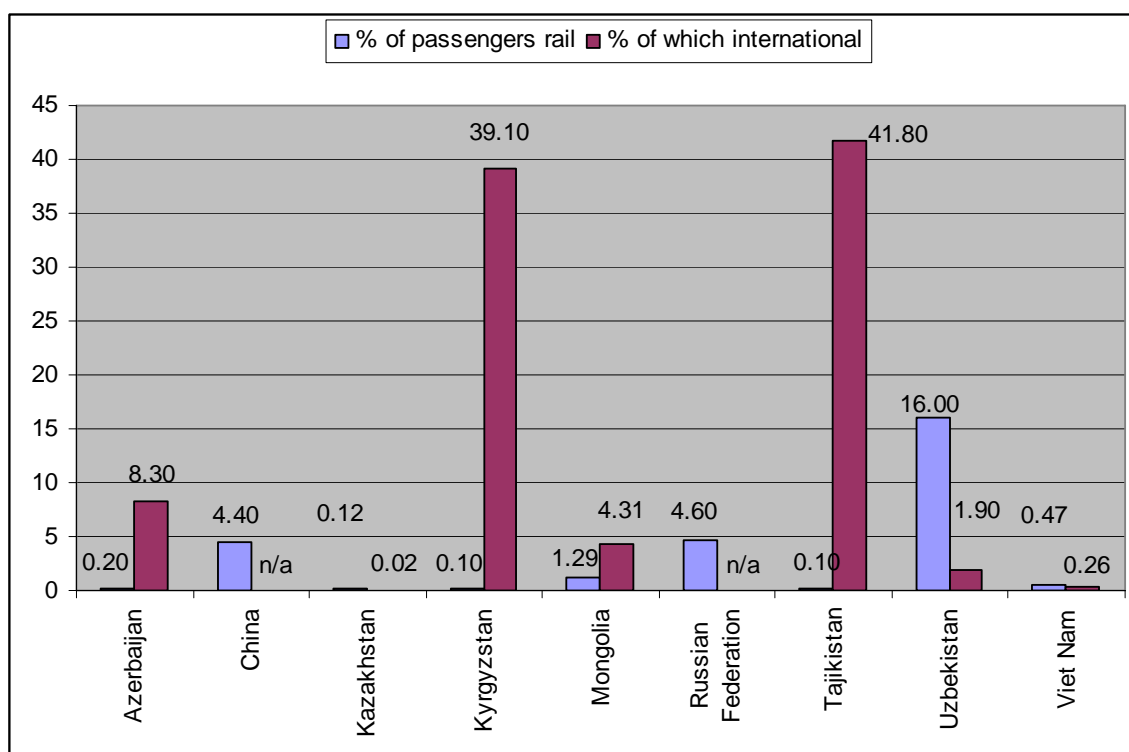
**Figure 1. Cargo rail transport in OSJD member countries in ESCAP region**



Source: Based on OSJD Bulletin of statistical data on railway transport for 2011 (2012)

As in case of freight, the proportion of rail passengers in overall passenger traffic is also less. It is below five per cent for most OSJD member countries (Figure 2), other than Uzbekistan where it 16 per cent. Further, with the exception of Kyrgyzstan and Tajikistan, the proportion of international rail passengers is also low.

**Figure 2. Passenger rail transport in OSJD member countries in ESCAP region**



Source: Based on OSJD Bulletin of statistical data on railway transport for 2011 (2012)

## 2. Operational status among OTIF members in the region

There are six countries in ESCAP region who are members OTIF, namely Armenia, Georgia, Islamic Republic of Iran, Pakistan, Russian Federation, and Turkey.<sup>4</sup> Georgia, Islamic Republic of Iran and Russian Federation are also members of the OSJD. The rail services between OTIF members are currently very limited due to the closing of several borders for international rail services and limited infrastructure. However, there are both freight and passenger services between Armenia and Georgia, between Islamic Republic of Iran and Pakistan, and Islamic Republic of Iran and Turkey.

The railway services among the OTIF members in the region are summarized in Table 2

<sup>4</sup> <http://www.genevainternational.org/navigate.php?kind=1&id=1490&lang=en&last=55&lastsub=73>

**Table 2. Operational status among OTIF members in the region**

OTIF members	Break of gauge	Freight services	Details	Passenger services	Details
Armenia - Georgia <sup>5</sup>	No	Yes	Karmir Blur – Poti container train has operated since 2009, and Yeravan – Poti since 2010.	Yes	Tbilisi – Yerevan daily in summer and every other day in other seasons. Yerevan-Batumi service also exists.
Armenia – Islamic Republic of Iran <sup>6</sup>	Yes	No	-	No	-
Armenia - Turkey <sup>7</sup>	Yes	No	-	No	-
Georgia - Russian Federation	No	No	-	No	-
Georgia - Turkey <sup>8</sup>	Yes	No	-	No	-
Islamic Republic of Iran - Pakistan	yes	yes	Istanbul-Tehran-Islamabad Container train	Yes	Zahedan (Iran) –Kuwaiteh (Pakistan) passenger service runs twice per month. <sup>9</sup>
Islamic Republic of Iran - Turkey	No	yes	Istanbul- Tehran –Islamabad Container train	Yes	Istanbul – Tehran once a week (Trans-Asia Express), with ferry across Van lake. <sup>10</sup> Van-Tabriz once a week.

### 3. Operational status among countries in South Asia

South Asia has large railway networks spreading over 77,000 kilometres. About 70 per cent of this network is extra broad gauge (1,676mm) largely in India, Pakistan and Sri Lanka, while in Bangladesh about 75 per cent of its network is on meter gauge (1,000mm) and only 25 per cent on extra broad gauge. There are two international rail connections between India and Pakistan, three lines between India and Bangladesh and two between India and Nepal. There is no rail connection to and from Bhutan.

**Table 3. Operational status among countries in South Asia**

Countries	Break of gauge	Freight connection	Passenger service
India – Pakistan	No	Limited	Yes
India – Nepal	No	Yes	No
India - Bangladesh	No	Yes	Yes

<sup>5</sup> <http://www.railwaypro.com/wp/?p=10948>

<sup>6</sup> <http://www.railjournal.com/index.php/news/agreement-signed-on-armenia-%E2%80%93iran-rail-link.html>

<sup>7</sup> <http://www.railwaypro.com/wp/?p=10948>

<sup>8</sup> <http://www.trainsofturkey.com/w/pmwiki.php/Facts/SleepingProjects#toc3>

<sup>9</sup> <http://raja.ir/default.aspx?culture=en-US&pageid=344>

<sup>10</sup> <http://www.raja.ir/default.aspx?Culture=en-US&page=ConductBehavior>

Between Pakistan and India, there is limited freight movement by rail. Containerized cargo is currently not allowed, and freight quantities are limited to one cargo train per week.<sup>11</sup> Two passenger services are also in operation between the countries. The Samjhauta Express is a twice a week service on the route Delhi – Attari – Wagah – Lahore, running since 1976.<sup>12</sup> The passengers have to switch trains at the borders.<sup>13</sup> The Thar Express, serving the route Jodhpur – Munabao – Khokrapar – Karachi is a weekly train was introduced in 2006. The train runs up to Munabao on the Indian side where the passengers disembark, complete the border crossing facilities and cross over to the Pakistani train stationed at Munabao for onward journey to Khokrapar and Karachi.

Between India and Bangladesh, a bi-weekly passenger train, Maitree Express, connects Dhaka and Kolkata, through Gede (India) and Darshana (Bangladesh) since 2008. There is also a freight train service from Singhabad and Petrapole in India to Rohanpur and Benapole in Bangladesh, respectively. However, cargo transport by rail between Bangladesh and India is very limited, with only a few wagons crossing the border each week. For both passenger and cargo trains a change of crew and locomotive is required inside the Bangladesh border.<sup>14</sup> Present load restriction over Jamuna Bridge in Bangladesh also prohibits the movement of broad gauge fully loaded wagons across the bridge, although a dual gauge railway network now exists up to Dhaka.

Between India and Nepal, there are currently two connections, one is a narrow gauge 53 kilometres<sup>15</sup> long connection between Jayanagar (India) up to Janakpur and Bizalpur (Nepal) for passenger traffic and second a 5.4 kilometre long broad gauge freight service connecting the Inland Container Depot (ICD) in Birjunj to Raxaul (India) where it is connected with Kolkata.<sup>16</sup>

#### 4. Operational status among countries in Southeast Asia

Railway lines in Southeast Asia are mostly on metre-gauge, apart from Indonesia where 1,067 mm gauge is used. Along the main lines single track is most commonly used, though in Malaysia 20 per cent of network already double-track, and in Thailand 4.3 per cent is double-track and 2.6 per cent triple-track. The network is mainly diesel operated, with the exception of Malaysia, where 20 per cent of the network is electrified and another 26 per cent is being converted. The axle load limits on the network are mainly 11 ton and 15 ton axle-load, but 20 ton axle-load is gradually being implemented. The maximum speed limit for freight trains is 70 kilometre per hour.

The existing international railway lines in Southeast Asia are listed in Table 4. Links between countries in Southeast Asia are limited to connections between Thailand and Lao People's Democratic Republic, and the railway connecting Thailand, Malaysia and Singapore. There are no international railway connections from Myanmar, Cambodia and Lao People's Democratic Republic (with the exception of Thanaleng). International railway link exists from Viet Nam to China, but not to other Southeast Asian countries.

<sup>11</sup> <http://www.thenews.com.pk/Todays-News-3-185120-Pak-India-railway-agreement-needs-to-be-revised>

<sup>12</sup> <http://www.iloveindia.com/indian-railways/trains/samjhauta-express.html>

<sup>13</sup> <http://www.irfca.org/faq/faq-inter.html>

<sup>14</sup> ESCAP (2012), Efficient Cross-Border Transport Models

<sup>15</sup> <http://www.irfca.org/faq/faq-inter.html#nepal>

<sup>16</sup> <http://www.dorw.gov.np/index.php>

**Table 4. Operational status among countries in Southeast Asia**

Countries	Break of gauge	Freight connection	Passenger service
Thailand – Lao PDR	No	No	Yes
Thailand - Malaysia	No	Yes	Yes
Malaysia - Singapore	No	Yes	Yes

Between Thailand and Lao People's Democratic Republic, a rail link was opened for passengers and cargo in March 2009. However, currently only the passenger trains are in operation, with two trains per day (for each direction). A freight train is under consideration. The track, 3.5 kilometre long starts at Nong Khai in Thailand and ends at Thanaleng in Lao People's Democratic Republic, is a single track, meter-gauge and in the centre of the First Thai–Lao Friendship Bridge. The second phase of the railway link is an extension of 9 km railway track from Thanaleng to Vientiane. The current equipment being used is operated by Thailand.<sup>17</sup>

Between Thailand and Malaysia, the Malaysian State Railway Authority (KTMB) and the State Railway of Thailand (SRT) operate a landbridge service, which links the Malaysian ports having railheads with the ICDs at Lat Krabang in Thailand through the border crossing of Padang Besar. This connection is however rarely used, as majority of cargo travels from the nearby provinces of Thailand by truck to the border of Malaysia and continues to Penang Port via railway. Due to poor condition of rolling stock the frequency of operations is limited to 4-6 trains per month. There is a twice per day passenger service connecting Hat Yai (Thailand) with Kuala Lumpur.<sup>18</sup>

Only passenger service between Malaysia and Singapore is operated by KTMB.<sup>19</sup> The border formalities required for Malaysia are carried out in Tanjong Pagar, Singapore (or onboard when coming from Malaysia), and in Woodlands Train Checkpoint for Singapore. Until 1998 both controls were carried out in Tanjong Pagar and as a result, when exiting Singapore passengers were first granted entry to Malaysia before clearing Singapore Immigration, which was contrary to international practice. To circumvent this problem, Malaysian immigration officers did not stamp on passengers' passports.

An international train service is running from Singapore to Thanaleng, Lao People's Democratic Republic for tourists travelling on various routes in Singapore, Thailand and Malaysia.

## 5. Operational status between Asia and Europe

Railway connections between Asia and Europe run through the Russian Federation and Turkey. There are several railway connections, most notably the Trans-Siberian railway from Moscow to Vladivostok, and Trans Asia-Europe line, connecting Turkey and China via Islamic Republic of Iran and Central Asia.

The Trans-Siberian railway is the longest mainline in the world at 9,852 kilometers, connecting the European railway network with China, Mongolia and the Korean Peninsula. In 2012, 638,216 TEUs of international cargo were carried on the line, and regular freight services ran on the line including Chongqing (China)-Duiburg (Germany), Shenyang (China) - Neutraubling (Germany) and Chengdu (China) – Lodz (Poland) – Grossbeeren (Germany).<sup>20</sup> Passenger trains connect Moscow and Beijing twice per week, once per week through

<sup>17</sup> The State Railway of Thailand

<sup>18</sup> ESCAP (2012) Efficient Cross-Border Transport Models

<sup>19</sup> <http://www.ajtpweb.org/statistics/Singapore/railway-transport-singapore>

<sup>20</sup> International Association Coordinating Council on Trans-Siberian Transportation

Ulaanbator and once per week through Manzhouli, China. Moscow-Vladivostok train service runs every other day. There is a break of gauge at the border crossing between China and Mongolia, in addition to the eastern borders of Poland, Slovakia, Hungary and Romania.

The Trans-Asia-Europe railway connects Istanbul to China (Lanzhou) via Islamic Republic of Iran, Turkmenistan, Uzbekistan and Kazakhstan. There is a break of gauge at the border between Islamic Republic of Iran and Turkmenistan, and at the border between China and Kazakhstan. There is also a train ferry across Lake Van in eastern Turkey. Currently there is no through passenger train service, but there is a weekly international passenger train service (Trans-Asia Express) between Istanbul and Tehran.

The Gul Train (formerly ECO Train) is an international freight train service covering the 6,500 km between Islamabad and Istanbul via Tehran in 16 days. A demonstration run was carried out in August 2009, but limited services exist currently.<sup>21</sup>

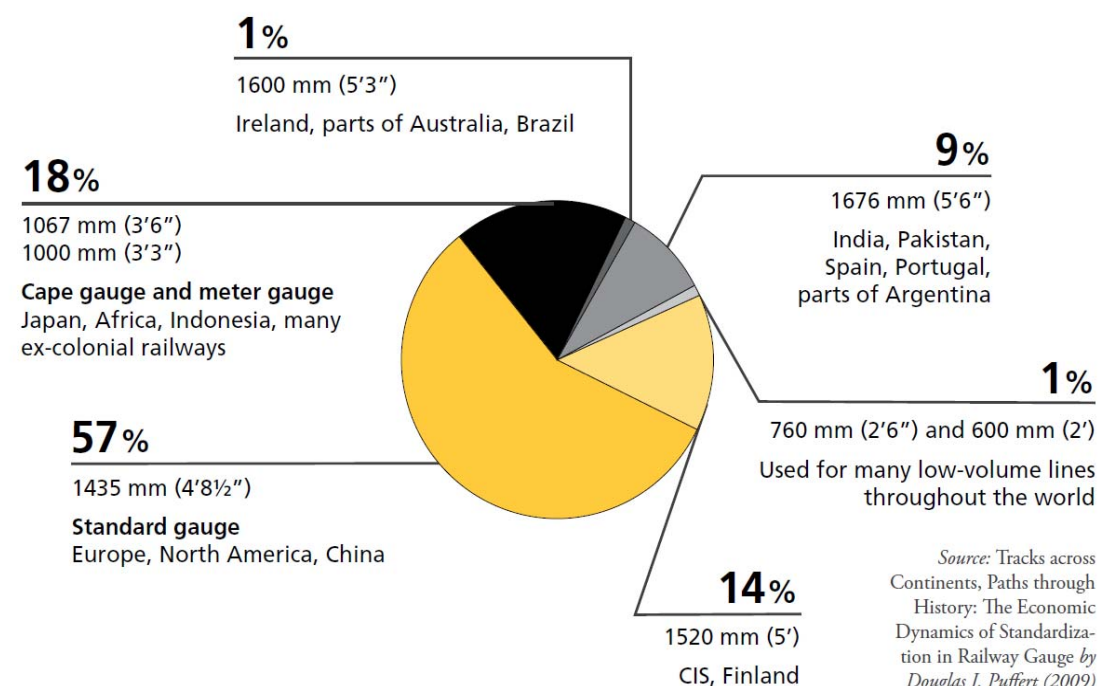
## B. Break-of-gauge

### (a) Definition

Track gauge is the inner distance between the rail tracks and is normally measured in millimetres. A break-of-gauge happens along a route where there is difference in track gauge of one network as compared to the other and as a result the rolling stock of one gauge cannot ply over the other. The break-of -gauge usually happens at international borders when a train moves from one network to another, but it can also happen within a country, in case, the rail network with in the country has different track gauges.

Around the globe most of the railway network is built on six gauges shown below starting from 1,000mm to 1,676mm. As can be seen 57 per cent of the global rail network is on standard gauge (1,435mm).

**Figure 3: Distribution of Railway gauges across the globe**



<sup>21</sup> <http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/national/06-Mar-2013/no-green-signal-yet-for-gul-train>.

## (b) Types of gauges in ESCAP region

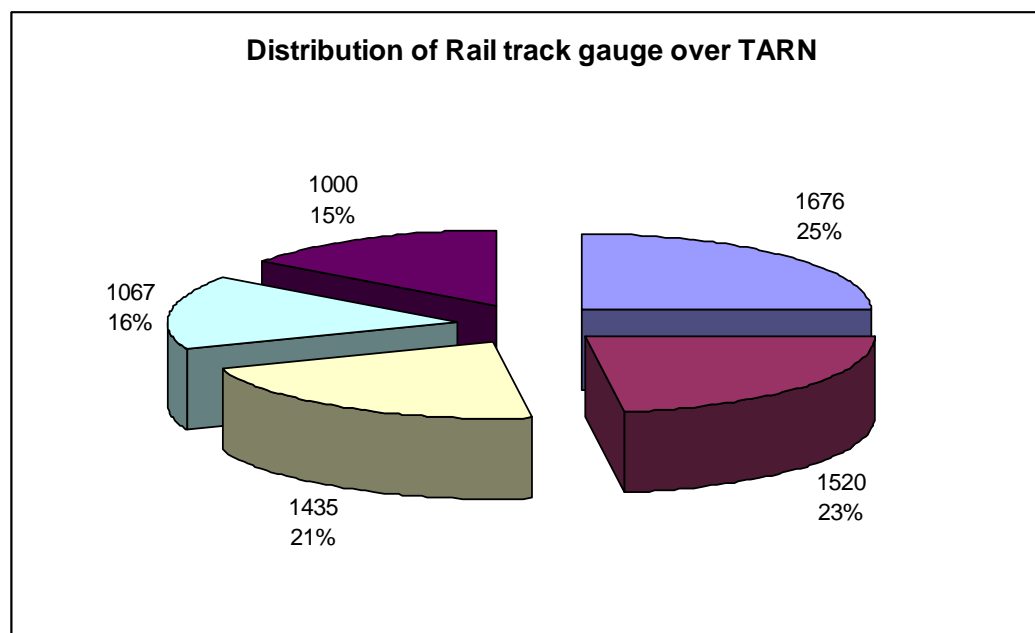
The Trans-Asian Railway Network (TARN) developed by the member countries of ESCAP has five main railway gauges i.e. 1,676mm, 1,520mm, 1,435mm, and 1,067mm covering 114,000 Km of railway network. It is a pan- Asian network of railways spanning 28 countries to serve the need of growing intra-regional and international transport.

As can be seen from the Table 5 and the map of TARN, most countries in south Asia have 1,676mm gauge, while the CIS countries have 1,520mm gauge, countries in Southeast Asia have 1,000mm gauge except Indonesia that has 1,067mm gauge.

**Table 5: Track gauges in Asian countries**

S. No	Rail Track gauge ( mm)	Country	TARN <sup>22</sup> route length ( kilometres)
1.	1,676	Bangladesh <sup>23</sup> , Nepal, India, Pakistan and Sri Lanka	16,524
2.	1,520	Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan	40,707
3.	1,435	China, Democratic Republic of Korea, Republic of Korea, Islamic Republic of Iran, Turkey	33,784
4.	1,067	Indonesia	4,035
5.	1,000	Bangladesh, Cambodia, Lao People's Democratic Republic, Malaysia, Myanmar, Singapore, Thailand , Vietnam	9,882 <sup>24</sup>

**Figure 4. Distribution of gauges over TARN**



<sup>22</sup> Figures taken from ESCAP publication 'Priority investment needs for the development of TARN',pg7

<sup>23</sup> Part of Railway network of the country

<sup>24</sup> The route length of Viet Nam under TARN is 2,424 kilometre is reflected here though there is 1,435 mm gauge as well

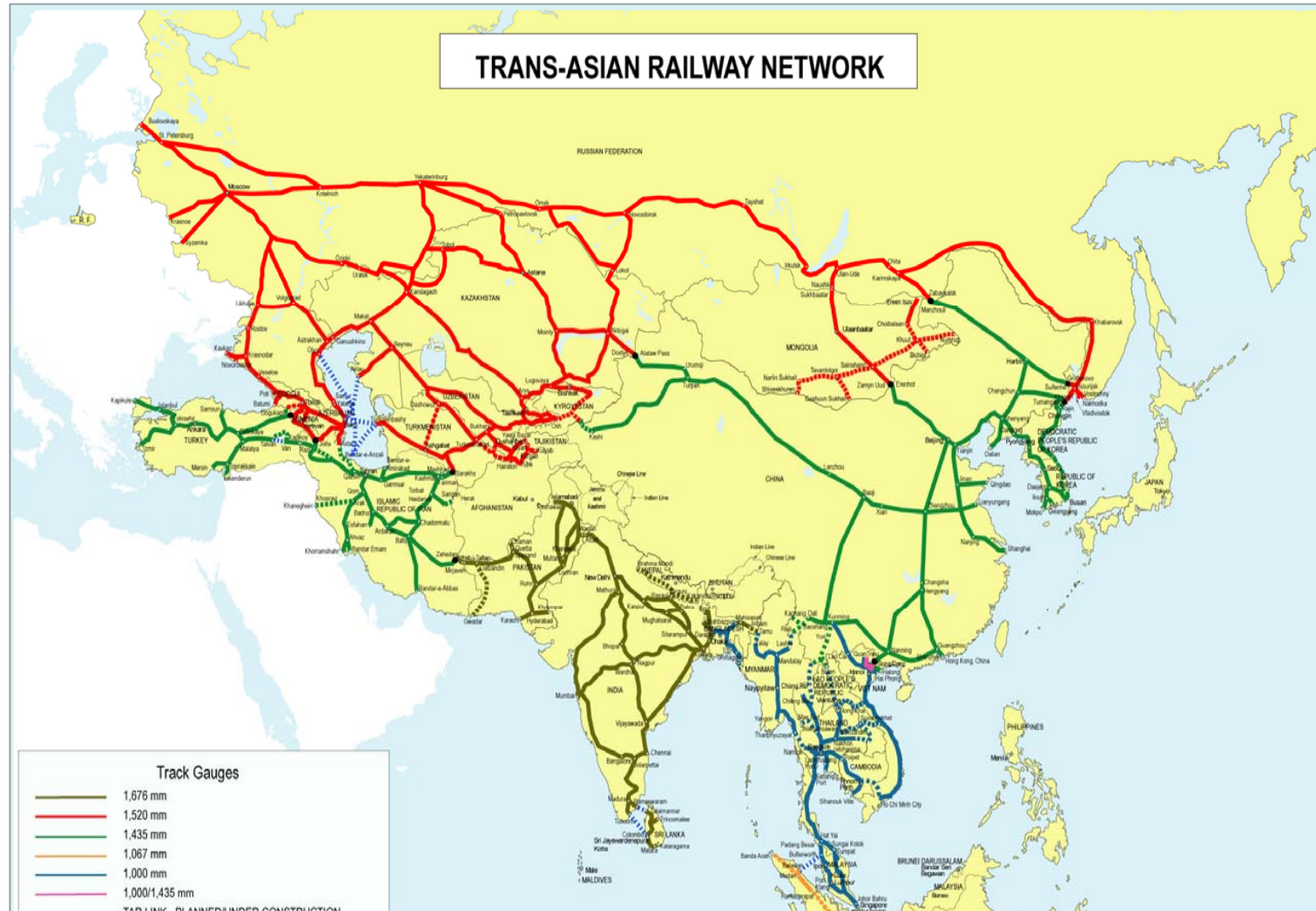


The main points of break of gauge among the countries in Asia are indicated below:

**Table 6. Main points of Break-of-Gauge**

S.No	Break of Gauge(mm)	Countries
1.	1,435-1,000	China- Viet Nam
2.	1,435-1,520	China- CIS countries, Mongolia, Russian Federation
3.	1,435-1,676	Islamic Republic of Iran- Pakistan
4.	1,435-1,520	Islamic Republic of Iran- CIS countries
5.	1,435-1,520	Turkey- CIS countries

Figure 5: Trans-Asian Railway Network



## C. New initiatives for development of railway links in the region

### (a) Economic Cooperation Organisation (ECO) rail corridors

ECO rail network development plan identifies five priority rail corridors to promote intra-regional transport<sup>25</sup>. These corridors are selected based on following criteria:

- Consensus among the countries for identified routes indicating their willingness for their development on priority;
- The selected routes are already operational or in advanced state of readiness for operations ( technically and politically);
- Cover all ECO member states to facilitate trade and transport in the ECO region;
- The corridors should be internationally recognised such those developed by ECE and ESCAP; and
- The routes should be extension of existing Euro-Asian routes to facilitate their further development.

The five routes are briefly described below:

- ECO rail route 1 starts from the eastern borders of Turkey with Bulgaria and Greece, passes through Istanbul and Ankara in Turkey, crosses Lake Van by rail ferry. There after it enters Islamic Republic of Iran at Kapikoy and passes through Aprin near Tehran. It enters Pakistan at Mirjaveh and following north east direction finally culminates at Islamabad. The route serves ECO members of Turkey, Islamic Republic of Iran and Pakistan with possible extension further to east with India, towards North with China and Iraq in the south. The route connects major ports in Turkey and Islamic Republic of Iran.
- ECO rail route 2A follows the same path as rail route 1 till Aprin in Tehran, from there it takes north east direction passing through Mary in Turkmenistan and heading towards Novai and Tashkent in Uzbekistan. It passes through Almaty before ending at Kazakhstan- China border.
- ECO rail route 2B is similar to rail route 2A till city of Neyshabur in Islamic Republic of Iran and then moves further east to Afghanistan and passes Heart-Mazar e Sharif- Nijniy Pyanj border with Tajikistan ( missing link). From Nijniy Pyanj it passes Kurgan Tube in Tajikistan (missing link) ending with Karamyk-Irkhestam (missing link) through Kyrgyzstan towards China.
- ECO rail route 3 starts from the western side of the Caspian Sea at the border crossing of Azerbaijan and Russian Federation and moves south crossing Azerbaijan and Islamic Republic of Iran and ending at Bander-e-Abbas port.
- ECO rail route 4 is on the eastern side of Caspian Sea and starts in Kazakhstan at the border crossing of the former with Russian Federation (Zhaisan) and continuing south west direction to Aktau on Caspian Sea. It continues south into Turkmenistan and enters Islamic Republic of Iran and passes its territory through Neyshabur and ending up in Bandar-e-Abbas port. A major link of the route between Turkmenistan and Kazakhstan is under construction. The route connects Russian Federation with the port of Bander-e Abbas in Islamic Republic of Iran

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<sup>25</sup> Tsamboulas Dimitrios, ECO Railway Network Development Plan, June 2012

- ECO rail route 5 originates at the border crossing of Russian Federation and Kazakhstan (Mamlyutka) and moves south through Shymkent, crossing on to Uzbekistan through Tashkent and Bukhara to the border with Turkmenistan. Further, the route follows south-western direction in Turkmenistan crossing Islamic Republic of Iran and terminating at Bander-e-Abbas port.

#### (b) OSJD Railway Transport corridors

OSJD Commission on Transport Policy and Development Strategy in 2009 formalised 13 railway transport corridors among their member countries. These corridors were developed from the existing (i) European transport corridors (ii) TRACECA corridors (iii) ESCAP – Trans- Asian Railway Network (iv) OSJD networks.

The main criteria for identification of corridors have been:

- High volume of international freight and passengers being handled or expected to be handled;
- Meet international technical specifications or to be upgraded as per the requirements of the Agreement on the Main International Railway Lines (AGC);
- Passing through several member states and is shortest possible route between origin and destination; and
- High operational and economic performance.

The corridors are as follows:

- Corridor 1 passes through the territory of Poland, Latvia, Lithuania, Estonia, Belarus, Russia, Kazakhstan, Uzbekistan, China, Mongolia and DPRK
- Corridor 2 passes territories of Russia, Kazakhstan, China and Viet Nam
- Corridor 3 through the territory of Poland, Ukraine and Russia
- Corridor 4 passes through Czechia, Slovakia, Hungary, Poland and Ukraine
- Corridor 5 passes through Hungary, Slovakia, Ukraine, Russia, Kazakhstan, Georgia, Azerbaijan, Moldova, China and Kyrgyzstan
- Corridor 6 passes through the territory of Czechia, Slovakia, Hungary, Romania, Serbia, Bulgaria, Greece, Turkey, Islamic Republic of Iran and Turkmenistan
- Corridor 7 passes through Poland and Ukraine
- Corridor 8 passes through Ukraine, Russia, Kazakhstan, Uzbekistan and Turkmenistan
- Corridor 9 traverses territory of Lithuania, Belarus and Russia
- Corridor 10 passes Ukraine, Bulgaria, Romania, Georgia, Azerbaijan, Uzbekistan, Turkmenistan, Kyrgyzstan, Kazakhstan and Tajikistan
- Corridor 11 traverses territory of Russia, Azerbaijan and Iran ( Islamic Republic of)
- Corridor 12 passes through the territory of Moldova, Romania and Bulgaria
- Corridor 13 passes Russia, Estonia, Latvia, Lithuania and Poland

#### (c) New railway link between Bangladesh and India

India is building a new railway link with Bangladesh between Agartala, India and Akhaura, Bangladesh. The proposed railway link has a potential to enhance connectivity of north-eastern states of India via Bangladesh and also provide closer access to north eastern region of India to Chittagong sea port in Bangladesh. Further, it will link Agartala and Kolkata via Bangladesh with a distance just about 350 km.

The project is expected to be completed by 2014. Of the 15 kilometre railway line with the Bangladesh railway network through Gangasagar and Akhaurah railway stations, 5 kilometre track falls in Indian territory and the remaining in Bangladesh.

Further construction is under progress on the Jiribam-Imphal rail section in North-East India as initial step towards reaching border with Myanmar at Moreh.

#### (d) Marmaray Project in Turkey

This project aims to connect Asian and European side of Istanbul in Turkey through 76.7 kilometres of upgraded/new railway link from Halkali (European side) to Gebze (Asian side) and includes 1.4 kilometres of immersed tube tunnel, 55 meter below sea level passing through the Istanbul straits. The project that cost EURO 3.5 billion opened on 29 October 2013. It completes the missing link in the Turkey's transport network between Europe and Asia making possible uninterrupted connection between Beijing and London.

#### (e) Baku –Tbilisi- Kars (BTK) Railway Project

The BTK railway project is a regional railway project that aims to link Baku in Azerbaijan with Kars in eastern Turkey through Tbilisi in Georgia. The project involves construction of 98 kilometres of new line between Kars and Akhalkalaki of which 30 kilometers is in Georgia and 68 kilometers on Turkish side and is planned for completion by 2014. The route will have break-of-gauge at the border between Turkey and Georgia as the railway networks of Georgia and Azerbaijan are on broad gauge (1,520mm), while Turkey is on standard gauge (1,435mm). It is proposed to have track change at Akhalkalaki station in Georgia where facilities for either transshipment or boogie changing are being contemplated.

Once completed this route will offer alternative transport route for landlocked countries in the Caucasus subregion and provide direct access of Azerbaijan and Georgia to sea ports in Turkey located along the Mediterranean Sea. The railways along the line are estimated to carry 6.5 million tons of freight and one million passengers annually in the initial phase.

### **D. Missing Railway Links**

Table 7 below indicates country-wise important missing links on the Trans-Asian Railway Network.

**Table 7. Missing Links on Trans-Asian Railway Network**

Country	Section	Gauge (mm)	Length (km)
Turkey	Eastern and Western shores of lake Van	1435	99
	Across Bosphorus Strait	1435	4
Iran	Karman -Jahedan	1435	545
India	Jiribam -Tamu	1676	180
Bangladesh	Jamuna River Bridge -Joydebpur	1676	99
Myanmar	Tamu-Kalay	1000	135
	Thambuzayat-Three Pagoda Pass	1000	110
	Lashio-Muse	1000	232
China	Muse-Dali	1435	632
Thailand	Three Pagoda Pass -Namtok	1000	153
Cambodia	Poipet – Sisophon	1000	48
	Phnom Penh – Loc Ninh	1000	254
Laos People's Democratic Republic	Nong Khai - Vientiane	1000	14
Vietnam	Loc Ninh – Ho Chi Minh city	1000	129

### **III. EXISTING ORGANISATIONS AND INITIATIVES TO PROMOTE COOPERATION AMONG COUNTRIES FOR RAILWAY TRANSPORT**

#### **A. Organisations**

##### **1. Organization for Co-operation between Railways (OSJD)<sup>26</sup>**

###### **(a) Background**

The Organization for Co-operation between Railways (OSJD) is an international organization established at the Railway Ministers Conference in Sofia, Bulgaria, by the ministers in charge of railway transport on 28 June 1956. The OSJD activities are undertaken on the basis of the OSJD Statute, which was adopted and is subject to amendments by the OSJD Ministers Conference.

###### **(b) Objective**

The main objective of OSJD is providing, developing and improving the international transportation by rail between Europe and Asia. It includes development of international freight and passenger traffic, creation of common railway transport environment in the EurAsian region, higher competitiveness and an increase in transcontinental railway routes as well as promotion of technological progress and technical-scientific cooperation in the field of railway transport.

###### **(c) Structure**

The cooperation within the framework of OSJD is being effected at both intergovernmental level and at the level of railway companies. The OSJD Ministers Conference (MC) is the top governing body of OSJD. The sessions of the Ministers Conference consider and take decisions on issues concerning overall directions of the organization's activities. The Conference of General Directors (authorized representatives) of OSJD Railways (CGD) is the top OSJD steering body at the level of railways and railway undertakings.

Conference of General Directors organizes cooperation in the field of international railway traffic between Europe and Asia, including combined transportation, reciprocal exchange of information on expected international trade transportation and, based on this, develops joint competitive proposals, adopts rules for the use of wagons and coaches and containers for international services, and organizes the process of accounting between railways

OSJD Committee is the executive body of OSJD. It manages the OSJD activities in the period between the sessions of the Ministers Conference and General Directors Conference. The Committee acts as a depository for the agreements and other legal instruments within the OSJD framework. The system of the OSJD working bodies consists of commissions and permanent working groups, which focus on the main directions of OSJD activities.

There are five commissions (Commission on Transport Policy and Development Strategy; Commission on Transport Law; Commission on Freight Traffic; Commission on Passenger Traffic; and Commission on Infrastructure and Rolling Stock) and two permanent working groups (Permanent Working Group on Coding and Information Technology and Permanent Working Group on Finance and Accounting).

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<sup>26</sup> [www.en.osjd.org](http://www.en.osjd.org)





#### (d) Members

There are several levels of cooperation and different types of membership in OSJD:

- i. Members of the Ministers Conference (most typically, heads of transport authorities of the countries represented);
- ii. Members of the Conference of General Directors (Authorized Representatives) of railway companies;
- iii. Observers (railway companies);
- iv. Affiliated enterprises (companies with activities related to railway transport).

The number of OSJD members, observers and affiliated enterprises as of 30 September 2013 totalled: 25 member government transport authorities; 25 member railway companies; 7 observer railways; and 32 affiliated enterprises.<sup>27</sup>

ESCAP member countries represented in the OSJD are: Azerbaijan, China, Democratic People's Republic of Korea, Georgia, the Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan and Viet Nam. Other countries represented in OSJD are mainly the East European countries. A number of other non-ESCAP member countries are being represented in OSJD only at the level of observer railway companies.

The new members can join OSJD on the basis of a consensus decision of the current members.

#### (e) Main legislative documents

The system of the OSJD legislative documents consists of: the basic documents of OSJD, including, procedural rules and regulations for the OSJD; agreements concluded within the framework of the OSJD; decisions of the OSJD governing bodies such as rules; and leaflets of either mandatory or recommendation nature on various technical issues of member railway operations.

There are nine main agreements concluded within the framework of OSJD:

- Agreement on the International Passenger Traffic (SMPS);
- Agreement on the International Freight Traffic (SMGS);
- Agreement on the International Passenger Tariff (MPT);
- Agreement on the International Railway Transit Tariff (MTT);
- Agreement on the Uniform Transit Tariff (ETT);
- Agreement on Rules for the Use of Coaches in International Traffic (PPW);
- Agreement on Rules for the Use of Wagons in International Traffic (PGW);
- Agreement on the Accounting Rules in International Transport of Passengers and Goods by Rail; and
- Agreement on Organizational and Operational Aspects of Combined Transportation between Europe and Asia.

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<sup>27</sup> Report on OSJD activities for 2012 (en.osjd.org)

#### (f) Important activities

- Development and improvement of international railway transportation between Europe and Asia, including combined transportation;
- Development of consistent transport policy in the field of international railway traffic, elaboration of railway transport and OSJD activity strategies;
- Development of international transport law, administration of the Convention concerning International Passenger Traffic by Rail (SMPS), Convention concerning International Goods Traffic by Rail (SMGS) and other legal documents connected with the international railway traffic;
- Co-operation on the solution of the problems related the economic, information, scientific, technological and ecological aspects of railway transport;
- Development of measures aimed at increasing the competitiveness of railway transport in comparison with other modes of transportation;
- Co-operation in the field of railway operation and technical matters connected with further development of international railway traffic; and
- Collaboration with other international railway transport organizations.

#### (g) Key current activities

Activities related to transport policy and development strategy include efforts on improving of operation and further development of OSJD transport corridors, facilitating border crossing formalities for passenger and freight traffic and implementing measures on increasing the railways competitiveness, including studies on defining technical and operational parameters of compatibility of 1,520 mm and 1,435 mm railway gauges.

In the area of transport law, OSJD administer agreements concluded within its framework. It also undertakes revision of SMGS and SMPS agreements to modernize them and adapt modern realities, promotion of the application of CIM/SMGS Common Consignment Note. Another direction of work is the formulation of the draft Convention on Through International Rail Transport, which is aimed at future integration of OSJD basic documents, SMGS and SMPS agreements and other key legal acts.

The activities for the development of freight traffic focus on improving the existing international agreements on combined transport and transit freight traffic tariffs, updating the Agreement on Rules for the Use of Wagons in International Traffic, harmonizing the unified system of coding and cargo description for OSJD member railways, scheduling and managing container block trains along the routes between Europe and Asia.

Passenger traffic-related activities comprise management of passenger trains, drafting and approval of timetables, train makeup procedures, improving conditions and services for passengers, development of passenger traffic and compliance with the timetables of international passenger trains.

The activities on infrastructure and rolling stock are concentrated on rolling stock clearance in international carriage with regard to interoperability, railway track and engineer structure, signalling, interlocking and communication systems, power supply and electric traction, and technical requirements to the components of the rolling stock. A joint OSJD/UIC Group on Automatic Gauge Changeover Systems (AGCS) was also established.

The work being carried out on the issues of coding and information technology covers the topics of coding and information technologies, paperless international carriage of

goods, security of information resources, information and telecommunications' infrastructure and information support for interoperability of passenger and freight traffic.

The activities related to finance and accounting focus on addressing the issues of payment clearance between the railways, reduction of the existing debts and dispute settlement, as well as on updating of the Agreement on the Accounting Rules in International Transport of Passengers and Goods by Rail.

OSJD's main international cooperation partners are ECE, ESCAP, OTIF, ERA and UIC. Among the important results of joint activities is the elaboration, in cooperation with UIC, of the Handbook on the CIM/SMGS Common Consignment Note, which contains rules of practical application of that document.

## **2. International Organization for international carriage by Rail (OTIF)**

### **(a) Background**

OTIF (Intergovernmental Organization for international carriage by Rail) is one of the intergovernmental organizations for promoting, improving and facilitating all aspects of rail transport. The organization came into being in May 1985 after the Convention concerning International Carriage by Rail (COTIF) entered into force in May 1980.

### **(b) Members**

Presently OTIF has 48 Member States in Europe, North Africa and the Middle East. The ESCAP members that are members of OTIF are Armenia, France, Georgia, Iran (Islamic Republic of), Pakistan, Russian Federation.

### **(c) Establishment of uniform rules for international rail traffic**

One of the principal objectives of OTIF has been establishment of uniform system of law on various aspects of rail transport and supports its development and application among its members. These uniform rules are contained in appendices A to G to the COTIF and cover following areas of rail transport:

- Uniform Rules concerning Contract of International Carriage of Passengers by Rail(CIV);
- Uniform Rules concerning Contract of International Carriage of goods by Rail(CIM);
- Regulations concerning the International Carriage of Dangerous goods by Rail(RID);
- Uniform Rules concerning Contract of Use of Vehicles in International Rail Traffic(CUV);
- Uniform Rules concerning Contract of Use of Infrastructure in international rail traffic(CUI);
- Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to Railway Material Intended to Be Used in International Traffic(APTU);
- Uniform Rules concerning the Technical Admission of Railway Material Used in International Traffic(ATMF)

#### (d) Structure of organization

Headquartered in Berne, Switzerland, the work of the OTIF is carried by the three bodies namely the General Assembly, the Administrative Committee and the Revision Committee. The General Assembly consists of the representatives from all the member states and meets once in three years or at the request of the Administrative Committee.

The Administrative Committee consists of representatives from one third of the member states as decided by the General Assembly. The Committee keeps a check on the administrative and financial business by the Secretary General and also approves the work programme, budget, management report and accounts of the organization.

The Revision Committee made of the representatives of the member states takes decision on the proposals to amend the provisions of the Convention and its Appendices that are subject to simplified and accelerated revision procedure. It also gives initial consideration to the proposals where final decisions are required to be made by the General Assembly.

The Secretary General, elected by the General Assembly performs the functions as the head of the Secretariat of the organization.

There are three expert Committees to consider technical issues:

- RID Expert Committee is made from the representatives of the member states and takes decision on amendment to the Regulations concerning Carriage of Dangerous Goods (RID).
- Committee of Technical Experts decides on the amendment to the annexes to the Uniform Rules concerning the Validation of the Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to the railway material intended to be used in the international rail traffic.
- Rail Facilitation Committee deals with all issues related to cross border movement of rail traffic. It can recommend standards, methods, procedures and practices relating to rail facilitation.

### **3. International Union for Railways (UIC)<sup>28</sup>**

#### (a) Background

UIC was established in Paris on 17 October 1922 with a main purpose to harmonise and improve conditions for railway construction and operations. The idea of creating an international organization, bringing together the railway companies, was developed in the wake of the international conference of Portorosa, Italy on 23 November 1921, followed by the international conference of Geneva in 3 May 1922. The state representatives favoured the “creation of a permanent rail administration focusing on international traffic for the standardization and improvement of conditions of railway construction and operations”.

The international conference founding UIC was held in Paris on 17 October 1922. Initially, the UIC had 51 members from 29 countries including China and Japan, which were soon joined by the railways from the erstwhile USSR, the Middle East and North Africa.

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<sup>28</sup> <http://www.uic.org/>

## (b) Membership

UIC has presently 197 members of which 82 are active members from railways of Europe, Asia, Middle East, Africa, 80 associate members (including railways from Asia, Africa, America and Australia) and 35 affiliate members (related or ancillary rail transport businesses or services)

The members of UIC can be integrated railway companies, infrastructure managers, and railway or combined railway transport operators, rolling stock and traction leasing companies, service providers (restaurant services, sleeping cars, public transport, and maritime transport).

## (c) Mission and objectives

UIC mission is to promote rail transport globally and meet the challenges of mobility and sustainable development. The main objectives of UIC are to:

- Facilitate the sharing of best practices among members (benchmarking);
- Support members in their efforts to develop new business and new areas of activities;
- Propose new ways to improve technical and environmental performance;
- Promote interoperability, create new world standards for railways (including Common standards with other transport modes);
- Develop centres of competence (High Speed, Safety, Security, e-Business); and
- Original principal task to harmonise and improve conditions for railway constructions and operations.

## (d) Important UIC projects

### (i) *Standardization Platform*

Launched in December 2012, the UIC standardization platform is one of the important initiatives to develop standardization strategy of UIC on various aspects of railway operations. Its objective is to make UIC global unifying body for railway operating rules and maintenance. Some of the other purposes the platform will serve are:

- Development of international railway standards (IRS) from the current UIC leaflets in phases;
- Institutional arrangement with other standards organisations such as ISO, IEC in development of railway standards; and
- Coordination of standardisation activities developed by different UIC forums.

Apart from increasing the geographical scope and use of UIC standards, the platform will strike a better balance between various stakeholders and standard bodies.

### (ii) *Intercontinental Combined Traffic (ICOMOD)*<sup>29</sup>

Under this project completed in 2011, UIC commissioned study in collaboration with a consulting firm Roland Berger with an objective to:

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<sup>29</sup> <http://www.uic.org/spip.php?article3152>

- Establish viability of a rail link between Asia and Europe
- Elaborate steps required to increase traffic on these routes
- Estimate market potential for rail freight

The study found that to be successful railways must focus on niche markets where they have competitive advantage and thereby avoid direct confrontation with maritime transport. In this regard, it suggested maximum value for railway transport in hinterland areas for high value goods. It also highlighted importance of predictability and reliability as vital to shippers as they decide on alternate modes of transport and therefore rail operators may well focus on them to attract freight. The study also underscored importance of improvement in the Customs procedures and inspections at origin or destination during transit.

#### *(iii) Organization of global rail freight conference (GRFC)*

Since 2007, UIC has been organizing GRFC, every alternate year. It brings together all stakeholders involved in rail transport such as policy makers, rail logistic service providers, customers, regulators and research institutions across the globe.

The purpose of GRFC is to highlight strategic issues of freight development along international corridors that promote intercontinental and transcontinental traffic, develop partnerships and exchange of ideas among all stakeholders.

## **4. International Rail Transport Committee (CIT)<sup>30</sup>**

International Rail Transport Committee was formed in 1902 for simplification of formalities in international railway transport. The main objective of the CIT is to promote interoperability of international railway transport by promoting harmonisation of legal frameworks and support uniform implementation of laws governing railway transport.

### **(a) Membership**

Currently, CIT is an association of about 200 railway undertakings and shipping companies which provide international passenger and/or freight services. 129 organizations are members in their own right, 80 organizations are linked indirectly by being members of CIT associate members. The CIT is an association under Swiss law and is based in Bern.

### **(b) Activities**

CIT helps implement international rail transport law by:

- Drawing up and maintaining legal publications and boiler plate documents for international traffic by rail;
- Standardizing the contractual relationships between customers, carriers and infrastructure managers;
- Representing the interests of carriers by rail vis-à-vis legislators and authorities;
- Providing regular briefings on legal issues; and
- Organizing training courses and giving legal advice as requested.

Every two years, it brings together some 150 specialist in international rail transport law at a workshop where experts debate on the current legal developments and future direction of railway transport law.

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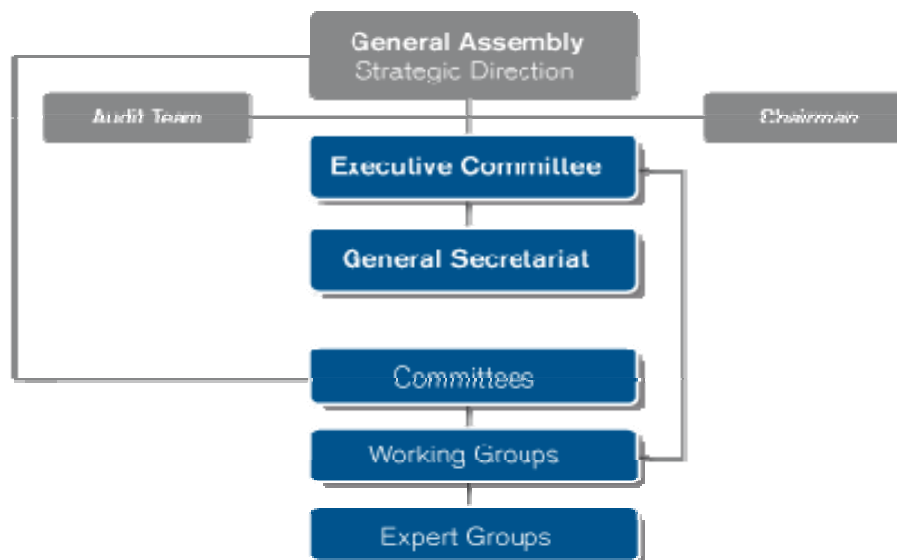
<sup>30</sup> <http://www.cit-rail.org/>

CIT supports the freight business by supporting its members in implementation of the legislation applicable and in particular the CIM Uniform Rules. It also aims to simplify and standardize the working relationships between transport undertakings and between them and their customers. In this regard it produces various reference documents such as agreements, basic contractual documents, manuals and forms.

#### (c) Structure of the organisation

The main working bodies of CIT are the Executive Committee and the Committees on Passenger and Freight Transport and the Use of Infrastructure. The Executive Committee directs the operations and administration and oversees the work of the Secretary General. The general assembly provides the strategic direction approves budget, accounts and elects members of working bodies. The Working groups are responsible for recommendations for decisions by the committee and expert groups are constituted to examine specific issues as needed.

**Figure 7. CIT Structure**



*Source: CIT website*

#### (d) Latest developments

In 2012, CIT completed a pilot project on shipments from China to Europe with the use of the common CIM/SMGS consignment note. Further, it supported the strengthening of legal framework of COTIF to cover multimodal shipments that have subsequently included in the CIT documents. CIT also made progress in completing the legal ground work for the use of electronic consignment note.

The CIT works closely with the OSJD, OTIF and other international organisations on joint projects to make transport law regimes for traffic between Europe and Asia interoperable.

## **5. Coordinating Council for Transiberian Transportation (CCTT)<sup>31</sup>**

### **(a) Background**

The Coordinating Council on Trans-Siberian Transportation (CCTT) is an international non-profit association with an open-ended duration, registered in the main trade register of St. Gallen, Switzerland, on 21 February 1997. The CCTT was founded by the Ministry of Railway of the Russian Federation (since 2003 JSC “Russian Railways”), DB AG (Deutsche Bahn), GETO (Association of European Trans-Siberian Operators), and KIFFA (Korean International Freight Forwarders Association).

### **(b) Members**

Presently the CCTT has 105 members from 23 countries, including railways and shipping companies, operators and freight forwarders, ports and stevedoring companies, governmental organizations and commercial companies. According to the Statutes of the CCTT, Chairperson of the Council on a permanent basis is President of the JSC “Russian Railways”. Deputy Chairpersons are presidents of freight forwarder associations that are members of the CCTT.

### **(c) Objectives**

The main objectives of the CCTT are:

- Attracting transit and foreign trade cargo to the Trans-Siberian route (TSR);
- Coordinating activities of companies that participate in international cargo transportation on the TSR to ensure high-quality delivery of goods; and
- Development of economic relations between countries of Southeast Asia, Far and Middle East, Central Asia, and Europe using the infrastructure of the Russian railways.

### **(d) Main duties of the CCTT**

- Coordinating the interaction of all participants of cargo transportation via the TSR;
- Participating in the elaboration of norms and regulations concerning the transportation process on the TSR;
- Preparing suggestions on growing cargo transportation volumes on the TSR based on the analysis of the transport market;
- Preparing suggestions on the elimination of the factors that restrain the attraction of transit and foreign trade cargo to the TSR; and
- Participating in the activities of other public and transport organizations within the competence of the CCTT.

### **(e) Selected CCTT activities**

- Monitoring of functioning of the TSR;
- Involved in the organization of a number of container block trains operating between Europe and Asia along the TSR;

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<sup>31</sup> <http://en.icctt.com>



- Promoted products related to the use of the TSR; and
- Promoted advanced technological solutions to increase the attractiveness of the TSR, including the “electronic train” pilot project, which demonstrated the possibilities of optimization of document flow on of the international goods transportation on the basis of development and introduction of information technologies with use of electronic legal and commercial documents related to international rail transport operations.

(f) International cooperation

The CCTT is cooperating with international transport organizations, in particular, with OSJD, UIC, International Rail Transport Committee (CIT), and European Intermodal Association (EIA).

## **6. Asian Railway Association (ARA)**

(a) Background

The first meeting of the chief executives of the railways held in Delhi in September 2004 recommended that an institutional mechanism be established for the region to promote interoperability and technical harmonization. The recommendation of the chief executives, to set up a regional body for the railways of South Asian countries, was welcomed at the Experts Group Meeting organized by ESCAP on Trans-Asian Railway in Delhi in April 2005. The Asian Railways Association (ARA) was formally launched in December 2006. The intergovernmental agreement on Trans-Asian Railway network materialized in the year 2007.

(b) Secretariat

The Asian Institute of Transport Development is the secretariat for the Asian Railway Association.

(c) Members

Presently the members of ARA include Bangladesh, Cambodia, India, Indonesia, Lao People’s Democratic Republic, Nepal, Sri Lanka, Thailand and Vietnam.

(d) Activities

AITD on the behalf of ARA has been organizing training courses for the railway personnel from south and south-east Asian countries. Recently, Indian Railways have offered cooperation research to member countries using the facilities of Research Design and Standards Organisation (RDSO). The programme will be coordinated through Asian Railways Association with AITD as the nodal point.

The Asian Institute of Transport Development, New Delhi is currently engaged in establishing a permanent campus with related infrastructure in a prime location in New Delhi. The facilities at the Campus would include a hostel, classrooms, library, conference halls, computer centre etc. These facilities could be utilized for setting-up a regional training institution for the Asian region.

## **B. Subregional initiatives**

### **1. Singapore Kunming Rail Link (SKRL) Project**

#### **(a) Background**

Proposed at the 5<sup>th</sup> ASEAN Summit held in 1995, the Singapore- Kunming Rail Link (SKRL) is the flagship project of AMBDC (ASEAN Mekong Basin Development Cooperation). It is also one of the important projects under Master Plan on ASEAN connectivity. The project proposes to connect the capital cities of Cambodia, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam.

#### **(b) Objectives**

The main objective of the project is to provide an environmentally sound and complementary mode of land transport that is efficient and economical for cross border transport of goods in the subregion and beyond. The project will allow railways to play an important role in the economic integration and boost trade and transport by extending the container land-bridge currently under operation between Malaysia and Thailand to adjoining countries. Once complete the SKRL will connect the ASEAN countries with their main trading partners China and India.

#### **(c) Railway lines**

SKRL has two lines, an Eastern line through Thailand, Cambodia and Viet Nam with a spur line between Lao People's Democratic Republic and Viet Nam and Western Line through Thailand and Myanmar.

#### **(d) SKRL Special Working Group (SWG)**

The progress of SKRL is monitored by a special working group (SWG) that meets annually. Till 2013, fifteen meetings of the SWG have taken place; the latest one took place in Kuala Lumpur, Malaysia in October 2013. By consensus, Malaysia holds the chair of the SWG and is supported by ASEAN secretariat. At the SWG meetings, each country briefs about the work undertaken by it in the previous year to complete the missing links on SKRL in their jurisdiction. The members also brief about other significant railway developments in their countries.

In addition to monitoring missing links on the SKRL, the SWG is also working to develop strategy for seamless operation of SKRL and in this regard during the fifteenth meeting of the SWG adopted a template (Annex) regarding information to be submitted on various aspects of railway infrastructure and operations by member countries, so that further decision based on analysis of information could be taken.

### **2. Economic Cooperation Organization**

Economic Cooperation Organization is an intergovernmental subregional organization of 10 countries<sup>32</sup> and was established in 1985 to promote economic, technical and cultural cooperation among its member countries. Transport connectivity is immensely important for ECO due strategic location of its member countries.

Rail transport development is mixed in ECO region, with some countries having no rail transport while others have well developed rail infrastructure. ECO has approved a master plan on railway network and identified eight railway transport corridors. ECO works the areas of railway infrastructure, operations and facilitation.

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<sup>32</sup> The ECO member countries are Afghanistan, Azerbaijan, Islamic Republic of Iran, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Turkey, Uzbekistan.

ECO developed corridor based strategy for designing and implementing rail transport in the region covering infrastructure, security, marketing, tariffs, and legal arrangements. Under the subregional programme on ECO railway development, five priority corridors are being planned for investment. For each corridor there are several working groups to deal with issues related to infrastructure, security, and operations. The important operational corridors are:

- Corridor 1 Istanbul- Tehran-Islamabad;
- Corridor 2 Bandar Abbas- Almaty rail route; and
- Corridor 3 Islamabad Almaty.

Most technical aspects for interoperability such as axle load have been included in the ECO Transit Transport Framework Agreement (TTFA); however fixing tariff and marketing of container trains pose continual challenge. For tariff fixation along the routes of container bloc trains, ECO is playing an important role to coordinate among the member countries. In this regard, a template has been designed and given to countries and after receiving back they are checked for discrepancies. On Istanbul-Almaty route six working groups have been constituted to agree on tariff. For marketing of train services, it is essential to involve association of chambers of industry and freight forwarders. ECO chamber of commerce also supports studies for marketing of train services.

TTFA is playing a significant role in rail transit operations in the ECO region. Transit Transport Coordinating Council is enforcement organ under TTFA and has statutory powers to monitor implementation of the agreement and it meets regularly. Under the TTCC there are five committees one on rail, road, insurance, regulatory and legal issues.

Rail committee deliberates on issues of harmonization of technical specification and their updating, ways to deal with break of gauge, regulatory issues such as alignment of working hours, conduct workshops on legal arrangements, promote accession of rail conventions such as COTIF.

### **3. Commonwealth of Independent States**

#### **(a) Background**

The Commonwealth of Independent States (CIS) is a subregional organization whose members are the majority of the former Soviet Republics. The member countries of the CIS include 9 official members (Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, and Uzbekistan) and two participating countries: Turkmenistan (unofficial associate member) and Ukraine (*de facto* member). Some of the members of the CIS have established the Eurasian Economic Community (EurAsEC) with the aim of creating a full-fledged common market.

#### **(b) Activities related to railways**

The CIS body which coordinates and implements the activities of the Commonwealth related to railway transport is the CIS Council for Rail Transport. The members of the CIS established the Council for Rail Transport in February 1992 to coordinate the railway systems on the territory of the former Soviet Union. Later several non-CIS member countries joined the CIS Council for Rail Transport as associate members or as participants with individually defined status.

The Council continues to coordinate the development of the infrastructure and tariff policy of railways across the CIS, approving over 130 agreements, rules, instructions and other documents regulating the joint operation of rolling stock, maintenance and the international transportation of passengers and goods.

## **4. Eurasian Economic Community (EurAsEC)<sup>33</sup>**

### **(a) Background**

The Eurasian Economic Community (EurAsEC) is a subregional organization, established for effective promotion of the creation by its member states of the Customs Union and Common Economic Space and fulfillment of other tasks and objectives, related to economic and humanitarian cooperation. The EurAsEC was founded according to the Treaty on the Establishment of the Eurasian Economic Community, signed by the presidents of the Belarus, Kazakhstan, Kyrgyzstan, the Russian Federation and Tajikistan in Astana on 10 October 2000.

### **(b) Members**

The EurAsEC member states are Belarus, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, and Uzbekistan.<sup>34</sup> Uzbekistan<sup>34</sup> joined to EurAsEC in 2005. Armenia, Moldova, and Ukraine have the status of observers with EurAsEC.

### **(c) Customs Union among Belarus, Kazakhstan and Russian Federation**

The Customs Union within the framework of EurAsEC is a form of trade and economic integration between its members to establish a common customs territory for free flow of goods within it and for application of unified customs tariffs for the third countries. The Customs Union was established in 2007, and currently includes three member countries: Belarus, Kazakhstan and the Russian Federation.

### **(d) Common Economic Space of Belarus, Kazakhstan and Russian Federation**

The Common Economic Space (CES) within the framework of EurAsEC is a deeper form of economic integration, which includes, apart from the existing Customs Union, conducting a coordinated economic policy, ensuring the free movement of services, capital, manpower and providing access to the infrastructure of CES member states. The package of basic treaties to establish the Common Economic Space of Belarus, Kazakhstan and the Russian Federation were signed in 2009 and entered into force since 2012.

### **(e) Activities**

The EurAsEC main goal in the area of transport is to form the common transport market and unified transport system through the establishment of Single Transport Space, which is understood as the aggregate of transport systems of the member states, allowing seamless transportation of passengers and goods, technical and technological compatibility of transport operations, harmonized legislation and unified rules of competition. The Concept of establishment of Single Transport Space was adopted by the EurAsEC Interstate Council in 2008.

### **(f) Railway agreements under EurAs EC**

A number of agreements on railway transport were concluded under the auspices of EurAsEC. The main measures related to railway transport being implemented or planned to be implemented within the framework of EurAsEC include unification of the railway tariffs for the transportation of goods within the member countries and providing access to the services of the railway infrastructure for the transport operators of the member countries.

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<sup>33</sup> [www.evrazes.com](http://www.evrazes.com)

<sup>34</sup> Uzbekistan has suspended its activities within the framework of EurAsEC in 2008.

## 5. Strategic Framework for connecting the Greater Mekong Subregion (GMS) Railways<sup>35</sup>

In 2010, Greater Mekong Subregion (GMS) countries developed a Strategic Framework for connecting GMS Railways. Currently, the GMS countries have no rail interconnection except between China and Viet Nam.

The Strategic Framework provides for five priority actions:

- “1. Ensuring that all GMS countries are connected to a GMS rail network by 2020
2. Promoting the development of a seamless rail network in the GMS by:
  - agreeing on common technical standards of interoperability;
  - streamlining and harmonizing procedures for cross-border movement of people and goods;
  - agreeing on regional operating rules and safety standards;
  - fostering cooperation between GMS railways; and
  - ensuring connection to other modes of transport
3. Ensuring that railway infrastructure and equipment in the GMS are modern and sufficient to meet the demand for rail services, and operated and regulated according to best practices in the operation and regulation of railways.
4. Developing GMS railway organizations to support the network by establishing a GMS rail coordination office.
5. Involving the private sector in the planning and development of the GMS railway network.”

To support these priority actions the framework contemplates four components. The first component is the identification and completion of at least one connecting route by 2020 from the four possible routes identified by the study as detailed below:

- Route 1: Bangkok–Phnom Penh–Ho Chi Minh City– Ha Noi–Kunming and Nanning;
- Route 2: Bangkok–Vientiane–Kunming (via Boten– Mohan)–Nanning and Ha Noi– Ho Chi Minh City;
- Route 3: Bangkok–Vientiane–Ha Noi and Ho Chi Minh City (via Thakhek–Mu Gia– Vung Ang)–Kunming and Nanning (via Ha Noi); and
- Route 4: Bangkok–Kunming (via Chiang Rai– Boten–Mohan)–Nanning and Ha Noi– Ho Chi Minh City.

The framework suggests route 1 to be taken up for construction on priority as it has least cost (USD 1.09 billion) and maximum freight potential that is estimated to be 25.7 million tonnes by 2025.

The second component of the framework is to consider supporting investments required to upgrade the existing lines on the selected route so that when the missing links are put in place entire network can be used to its full potential.

The third component is to contemplate and execute various technical assistance projects that are essential for rail connectivity among the GMS countries. Some of these

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<sup>35</sup>Connecting GMS Railways- A Strategic Framework ,available on the ADB website at: <http://www2.adb.org/documents/reports/connecting-gms-railways/connecting-gms-railways.pdf>

projects are adoption of common technical standards, building appropriate regulatory regimes, agreement for exchange of information and cooperation for cross-border transport, investment needs in rolling stocks, developing national railway plans.

The last component is the establishment of the rail coordination office to coordinate activities of the GMS countries and multilateral institutions to develop an efficient rail network among the countries. The main task of the rail coordination office will be to serve as a focal point for developing GMS railway network information system, monitor and report on the progress of development of GMS railway network, liaise with railway officials of the member countries, help in financing issues, mobilise private sector and its participation in various projects.

## **6. Central Asia Regional Economic Cooperation (CAREC)<sup>36</sup>**

The Central Asia Regional Economic Cooperation (CAREC) programme consists of 10 countries: Afghanistan, Azerbaijan, China, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, Turkmenistan and Uzbekistan.

The activities of CAREC for rail transport are directed by the CAREC Transport and Trade Facilitation Strategy for 2008-2017, endorsed by the 6th Ministerial Conference held in Dushanbe, Tajikistan in November 2007. The Strategy sets out the framework for the upgrading of key transport corridors in the subregion, and measures to enhance the efficient movement of people and goods.

The strategy also addresses the need of harmonization of procedures, and a reform in the railway sector of the member countries. Privatization in particular is suggested to increase the regional competitiveness of the sector and enhance private sector participation.

The Strategy also draws attention to the need for a track sharing agreement, and increased transparency and standardization in the economic cost accounting procedures and inter-railway payments. The tariffs for containers are also to be made more attractive.

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<sup>36</sup> <http://www.carecprogram.org/uploads/docs/CAREC-Transport-TradeFacilitation-Strategy.pdf>

## IV. EXISTING LEGAL INSTRUMENTS RELATED TO THE FACILITATION OF INTERNATIONAL RAILWAY TRANSPORT

### A. International Conventions and Agreements

#### 1. OSJD agreements

There are nine agreements concluded within the framework of OSJD:

- Agreement on the International Passenger Transport by Rail (SMPS);
- Agreement on the International Goods Transport by Rail (SMGS);
- Agreement on the International Passenger Tariff (MPT);
- Agreement on the International Railway Transit Tariff (MTT);
- Agreement on the Uniform Transit Tariff (ETT);
- Agreement on Rules for the Use of Coaches in International Traffic (PPW);
- Agreement on Rules for the Use of Wagons in International Traffic (PGW);
- Agreement on the Accounting Rules in International Transport of Passengers and Goods by Rail;
- Agreement on Organizational and Operational Aspects of Combined Transportation between Europe and Asia.

The status of participation of these agreements is shown below. They are also described briefly in foregoing paragraphs.

**Table 8. Status of participation of 13 ESCAP member countries OSJD agreements (as of 15 February 2012)<sup>37</sup>**

No.	Country	Participation								
		SMPS	SMGS	MPT	MTT	ETT	PPW	PGW	Rules of Accounting	Combined Transportation
1.	Azerbaijan	yes	yes	no	yes	yes	no	no	yes	no
2.	China	yes	yes	yes	no	yes	yes	yes	yes	yes
3.	Democratic People's Republic of Korea	yes	yes	yes	no	yes	yes	yes	yes	no
4.	Georgia	yes	yes	no	yes	yes	no	no	yes	no
5.	Iran (Islamic Republic of)	no	yes	no	no	no	yes	yes	no	no
6.	Kazakhstan	yes	yes	yes	yes	yes	yes	yes	yes	yes
7.	Kyrgyzstan	yes	yes	yes	yes	yes	yes	yes	yes	yes
8.	Mongolia	yes	yes	yes	yes	yes	yes	yes	yes	yes
9.	Russian Federation	yes	yes	yes	yes	yes	yes	yes	yes	yes
10.	Tajikistan	yes	yes	yes	yes	yes	yes	yes	yes	no
11.	Turkmenistan	yes	yes	yes	no	no	no	no	no	no
12.	Uzbekistan	yes	yes	yes	yes	yes	yes	yes	yes	yes
13.	Vietnam	yes	yes	yes	no	yes	no	no	yes	no

<sup>37</sup> Organization for cooperation between railways (OSJD), Report on the Activities of the Organization for cooperation between railways for 2012, <http://en.osjd.org/>

The major OSJD agreements are the Agreement on International Goods Transport by Rail (SMGS) and the Agreement on International Passenger Transport by Rail (SMPS).

#### (a) Agreement on the International Passenger Transport by Rail (SMPS)

The Agreement entered into force on 1 November 1951, and undergoes revision from time to time. There are currently 23 contracting parties to SMGS (as of 15 February 2012) out of which the ESCAP members are: Azerbaijan, China, Democratic People's Republic of Korea, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan and Viet Nam.

The SMPS Agreement consists of 9 chapters and 45 articles. There are also two technical appendices. Besides, there is an accompanying document entitled SMPS Manual that contains comments and explanatory notes for the application of the agreement. The main agreement consists of 8 chapters and 41 articles.

Chapter I "Basic provisions" defines the overall subject of the Agreement to establish the rules of international carriage of passengers, baggage and cargo baggage. The chapter covers the scope of application of the agreement, main terms used in the text and overall responsibilities involved into the process of international carriage of passengers by rail.

Chapter II "Carriage of passengers" describes the main transport document for passenger carriage (ticket) and its additional elements; conditions of ticket validity, categories of seats in trains and rules of changing the seat category. It also covers the provisions related to travel of children, ticket inspections, carriage of baggage and pets, defines items forbidden for carriage as hand baggage, amendment of the passenger itinerary, and sequences of train delay and cancellation.

Chapter III "Carriage of baggage" establishes baggage allowance for passengers, defines items allowed and not allowed to be carried as baggage, sets up the rules for acceptance and release of baggage by the carrier, packaging and marking, declaration of baggage value, and terms of delivery.

Chapter IV "Carriage of cargo baggage" contains rules for cargo baggage of very close nature to those applied for baggage and set out in Chapter III thereof: items allowed and not allowed to be carried as cargo baggage, rules for acceptance and release of cargo baggage by the carrier, packaging and marking, declaration of value of the cargo baggage, terms of delivery, and obstacles for carriage and release of cargo baggage.

Chapter V "Carriage charges" defines the rules on using tariffs for calculation of carriage charges and sets the procedures for payment and refund of carriage charges.

Chapter VI "Carrier liability" covers the issues of joint liability of railways, liability for harm to passenger's health or life, as well as carrier's liability in cases of delay in delivery, full or partial loss or damage of baggage/cargo baggage.

Chapter VII "Liabilities of passenger, sender and recipient of baggage or cargo baggage" defines the scope of liability of the captioned actors.

Chapter VIII "Claims" sets up the procedures for claims submission and limitation period.

Chapter IX "General provisions" refers to the obligation to comply with customs rules and regulations and applicable national legislation in the course of international passenger carriage. It also covers the status of the SMPS Manual, procedures for publishing amendment of the Agreement and Manual, and on administering the implementation of the Agreement by OSJD bodies.

Appendix 1 is entitled "Items under the monopoly of postal authorities", and Appendix 2 is the "List of the railway undertakings for claim submission and handling".



## (b) Agreement on the International Goods Transport by Rail (SMGS)

The Agreement entered into force on 1 November 1951, and undergoes revision from time to time. There are currently 23 contracting parties to SMGS (as of 15 February 2012) out of which the ESCAP members are: Azerbaijan, China, Democratic People's Republic of Korea, Georgia, Iran (Islamic Republic of), Kazakhstan, Kyrgyzstan, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan and Viet Nam.

The SMGS Agreement structurally consists of the main agreement and 22 appendices. Besides, there is an accompanying document entitled SMGS Manual that contains comments and explanatory notes for the application of the agreement. The main agreement consists of 8 chapters and 41 articles.

Chapter I "Basic provisions" defines the main subject of the Agreement to establish direct international freight rail traffic between the railways of the contracting parties. The chapter also covers the scope of application of the agreement and provisions related to duties of railways to carry goods, items not allowed for carriage or allowed for carriage on special conditions and special conditions for certain types of carriage.

Chapter II "Conclusion of the contract of carriage" covers the issuing of the consignment note, acceptance of goods for carriage, calculation of goods' weight and quantity, declared value of goods, responsibility for the validity of the data in the consignment note; tariffs and calculation of carriage charges and fines; and rules for the terms of goods delivery.

Chapter III "Performance of the contract of carriage" covers the matters of payment of carriage charges, release of goods to the consignee, issuing of commercial acts and carrier's right of retention.

Chapter IV "Amendment of the contract of carriage" includes provisions on the procedure of amending of the contract of rail carriage and special provision for the cases of when obstacles to release of goods to the consignee occur.

Chapter V "Liability of Railways" establishes provisions on joint liability of railway carriers, overall principles related to limitation of carrier's liability, rules of limitation of liability in cases of shortage of goods, limitations of compensation by carriers in cases of full or partial loss, damage, and delayed delivery of goods. It also describes the rules of payment of compensation and accruing interest on the amount of compensation payable.

Chapter VI "Claims and actions" covers the procedures of submitting claims and actions, sets the limitation periods and the rules of defining jurisdiction for legal proceedings.

Chapter VII "Payments" contains the rules of payment settlement, including the cases of reimbursement of compensation paid by the railway carriers.

Chapter VIII "General provisions" covers the issues of currency for the calculation of amounts of payments, status of the SMGS Manual, procedures for amendment of the Agreement and Manual, and on administering the implementation of the Agreement by OSJD bodies.

The appendices to the SMGS Agreement, which are referred to in the relevant articles of the main body of the Agreement, cover various specific aspects of international road carriage of goods:

Appendix 1 "Items under the monopoly of postal authorities";

Appendix 2 "Rules of carriage of dangerous goods";

Appendix 3 "Rules of carriage of goods accompanied by the representatives of consignor or consignee";

Appendix 4 “Rules of carriage of perishable goods”;

Appendix 5 “Loading dimensions”;

Appendix 6 “Stickers and marks on consignments, wagons, containers and consignment notes”;

Appendix 7 “Rules of carriage of road vehicles and tractors”;

Appendix 8 “Rules of carriage of containers”;

Appendix 9 (reserved);

Appendix 10 “Rules of carriage of private and rented wagons”;

Appendix 11 “Rules of carriage of goods in transport packets”;

Appendices 12 and 13 (contain a number of templates and operating instructions for SMGS consignment note, railway memorandum bills and other transport documents accompanying goods);

Appendix 14 “Rules of stowage and fastening of goods in wagons and containers”;  
Appendices 15 – 18 (contain templates of documents related to international rail carriage);

Appendix 19 (indicates official names and contacts of the railway undertakings for claim submission and handling);

Appendix 20 (provides a template of claim for delayed delivery);

Appendix 21 “Rules of carriage of combinations of road vehicles, road vehicles, trailers, semi-trailers and of demountable road vehicle bodies”; and

Appendix 22 “Handbook on CIM/SMGS Common Consignment Note”

#### *Revisions of SMGS and SMPS*

Since entering into force in 1951, both SMGS and SMPS agreements have undergone multiple regular revisions. The amendments to the agreements are being proposed, discussed and agreed by the OSJD Commission on Transport Law. The current round of SMGS revision commenced in 2005 and included, among other important updates of the SMGS Agreement, many of which were aimed at harmonization of some of its provisions with the relevant provisions of COTIF Convention (CIM), introduction of rules related to CIM/SMGS Common Consignment Note. The current efforts in the revision of SMPS agreement also pursue the target to make it more compatible to COTIF (CIV).

#### *Draft OSJD Convention on Direct International Rail Transport*

The OSJD members are also in the process of formulating planning to formulate adopt the Draft Convention on Direct International Rail Transport, which is to integrate the basic documents of the Organization and establish a comprehensive set of rules related to international railway transport, and to replace the current main agreements. The Convention is to be concluded at the level of heads of the governments of the OSJD member countries. The revised SMGS and SMPS could cease to exist as international agreements and could become appendices to the Convention.

*Other OSJD agreements:*

(c) Agreement on the International Passenger Tariff (MPT)

The Agreement entered into force on 1 August 1991. It consists of 8 clauses, which establish rights and obligations between the MPT member railways. Participation of railways in the MPT Agreement does not affect their relations with other railways, which are not parties to the Agreement. The IPT (MPT) Agreement does not obstruct the negotiating railways interested in conclusion of separate bilateral or multilateral agreements on application of other passenger tariffs with other railways. The International Passenger Tariff (MPT), which is established by the Agreement, sets up the procedure for forming the tariffs for the carriage of passengers. The Agreement is also supplemented by the Manual with operating instructions and comments on the practical application of the MPT.

(d) Agreement on the International Railway Transit Tariff (MTT)

(Entered into force on 1 January 1997) and

(e) Agreement on the Uniform Transit Tariff (ETT) (Entered into force on 1 July 1991)

Both agreements establish tariffs for international rail transport of goods among the contracting parties to the respective agreements.

The tariffs are used by the contracting parties for calculation of carriage charges for goods transportation in transit traffic with SMGS and CIM/SMGS consignment note. UTT is mostly used for transport operations between the countries of Europe and Asia, while MTT is applied most typically within Europe.

Both of tariffs contain maximum rates, tables of additional charges, transit distances on separate countries, codes and names of border crossing points, instructions for carriage documents. Furthermore, they contain instructions on accounting of carriage charges by transportation of some goods under special transportation conditions.

(f) Agreement on Rules for the Use of Coaches in International Traffic (PPW) and

(g) Agreement on Rules for the Use of Wagons in International Traffic (PGW)

Both agreements entered into force on 1 January 2009 and establish sets of Rules for the use of passenger coaches (PPW) and freight wagons (PGW) in international rail traffic.

Since 1 November 1951 till 31 December 1991 the Rules for the use of wagons (both for passenger and freight wagons) were the part of the Agreement on the International Goods Transport by Rail (SMGS). Since 1 January 1992 till 31 December 2008 the Agreement on the Rules for use of wagons in the international railway traffic was applied to the passenger and freight wagons. This agreement has been then divided into two agreements:

- Agreement on the Rules for use of passenger wagons in the international traffic (PPW-Agreement);
- Agreement on the Rules for use of freight wagons in the international traffic (PGW-Agreement).

(h) Agreement on the Rules of Accounting in International Transport of Passengers and Goods by Rail

Entered into force on 1 July 1997, the Agreement covers the issues of accounting between the railways which are contracting parties there to according to the Rules on Accounting in International Transport of Passengers and Goods by Rail.

The Rules are the integral part of the Agreement and are applied for accounting procedures related to transportation of passengers, baggage, cargo baggage, goods and other services within the framework of SMPS and SMGS agreements.

(i) Agreement on Organizational and Operational Aspects of Combined Transportation between Europe and Asia

Signed on 4 June 1997, the agreement defines the network of main lines for combined transportation and defines the main technical parameters of such lines. The agreement has been developed on basis of European Agreement on Important International Combined Transport Lines and Related Installations (AGTC) and is generally similar in the subject and structure.

## **2. Convention concerning International Carriage by Rail**

(a) Overview

The first International Convention concerning the Carriage of Goods by Rail dates from the year 1890. It created an Administrative Union as per the prevailing rules of international law with a permanent secretariat, the Central Office for International Carriage by Railway, headquartered in Berne, Switzerland. On 1 May 1985, the Convention concerning International Carriage by Rail of 9 May 1980 (COTIF) entered into force and this led to formation of the Intergovernmental Organization for International Carriage by Rail (OTIF).

After significant modifications to COTIF that were brought about by the Vilnius Protocol of 3 June 1999 (1999 Protocol), the amended convention entered into force on 1 July 2006.

(b) Objectives

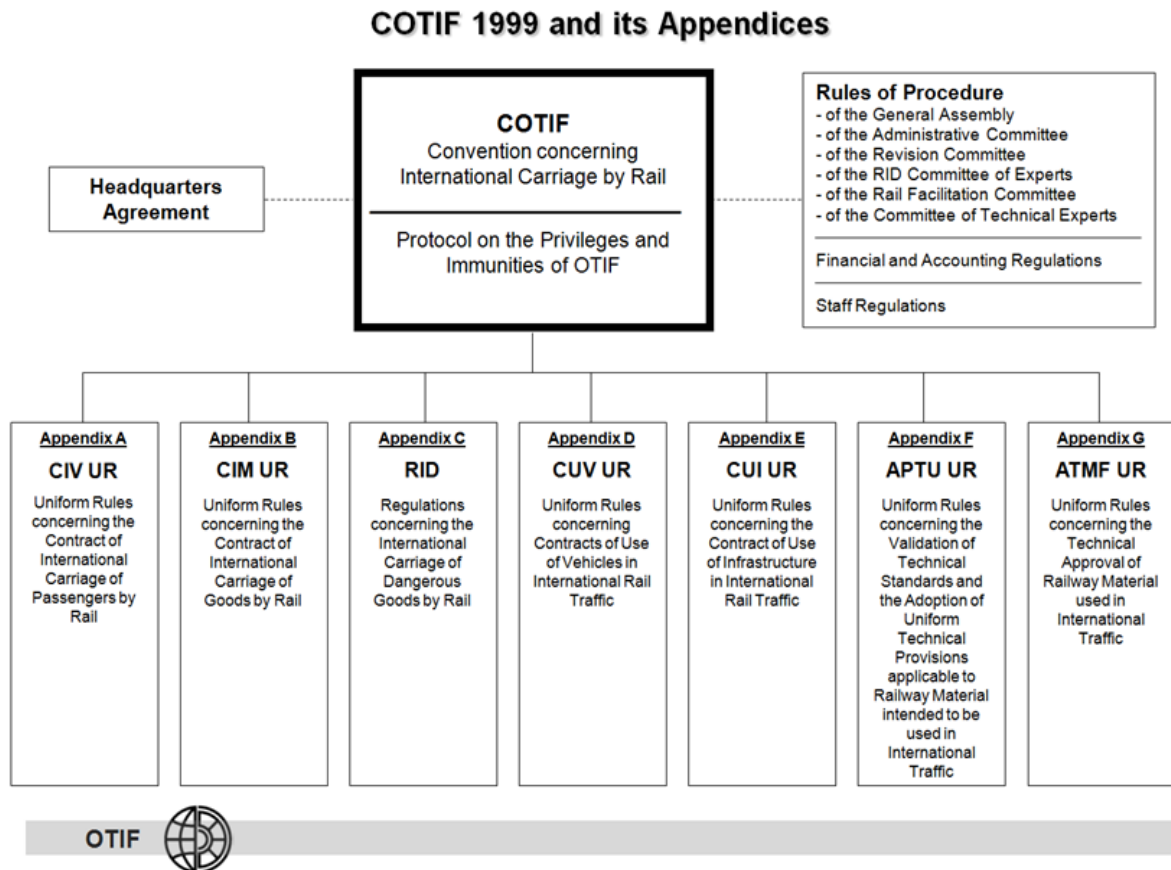
The objectives of the convention are to promote, improve and facilitate international traffic by railway.

(c) Key provisions

The convention consists of:

- Base convention that has seven subheadings containing 45 articles that cover scope, structure and functioning, finances, arbitration, modification procedure and final provisions;
- Protocol on the privileges and immunities of the Intergovernmental Organisation for International Carriage by Rail( OTIF) having 14 articles;
- Protocol of 3 June 1999 for the modification of the convention concerning International Carriage by Rail ( COTIF) of 9 May 1980( Protocol 1999) having seven articles; and
- Appendices including their annexes

Figure 8. COTIF 1999 at a Glance



Uniform rules for international carriage by rail are contained in the seven Appendices to COTIF. They are briefly discussed below:

Appendix A: Uniform Rules concerning the Contract of International Carriage of Passengers by Rail (CIV). Some important provisions are:

- Applicable to contracts for carriage of rail passengers where the place of departure and place of destination are situated in two different member states;
- Applicable to whole of the infrastructure unless reservation at the time of accession;
- Consensual contract (no obligation); and
- International carriage being subject to single contract includes carriage by road or inland waterway as a supplement to transfrontier carriage by rail the rules shall apply.

Appendix B Uniform Rules concerning the Contract of International Carriage of Goods by Rail (CIM). Some important provisions are:

- Applicable to whole of the rail infrastructure unless reservations to scope are made at accession;
- Applicable to carriage by road or inland waterway in internal traffic of a member state as a supplement to transfrontier carriage by rail
- Consensual contract ( no obligation to carry); and
- Consignment Note ( prima facie evidence of carriage)

Appendix C Regulation concerning the International Carriage of Dangerous Goods by Rail (RID). The regulations apply to:

- International carriage of dangerous goods by rail on territory of (RID) contracting member state;
- Carriage complementary to carriage by rail to which CIM Uniform Rules are applicable; and
- Activities referred to by the Annex to this Regulation.

Appendix D Uniform Rules concerning Contracts of Use of Vehicles in International Rail Traffic (CUV). These uniform rules apply to:

- Bilateral or multilateral contracts concerning the use of railway vehicle as means of transport for carriage in accordance with CIV and CIM uniform rules; and
- Limited to questions on
  - Liability in case of loss of or damage to a vehicle
  - Limitation of actions
  - Forums for settlement of disputes

Appendix E Uniform Rules concerning the Contract of Use of Infrastructure in International Rail Traffic (CUI):

- Apply to any contract of use of railway infrastructure for international carriage as per CIV and CIM uniform rules;
- Applicable to when railway infrastructure is managed or used by States or by governmental institutions or organizations;
- Carrier must be able to prove that he is authorized and in compliance with the safety requirements for the use of infrastructure (safety certificate)
- Carrier must be able to cover insurance claims;
- Liability of infrastructure manager for bodily loss or damage, loss of or damage to property and pecuniary loss to the carrier during the use of infrastructure; and
- Period of limitation- three years from the day of loss or damage to the infrastructure.

Appendix F Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to Railway Material intended to be used in International Traffic (APTU):

- Lays down the procedure for validation of technical standards and the adoption of uniform technical prescriptions for railway material intended to be used in international traffic.

Appendix G Uniform Rules concerning the Technical Admission of Railway Material used in International Traffic (ATMF)

- Lay down the procedure for the admission of railway vehicles and other railway material for admission to circulation or use in international traffic.

### **3. International Convention to Facilitate the Crossing of Frontiers for Goods Carried by Rail, 1952**

#### **(a) Overview**

International Convention to Facilitate the Crossing of Frontiers for Goods Carried by Rail, was signed at Geneva on 10 January 1952. This convention entered into force on 1 April 1953. There are currently 12 contracting parties to this Convention,<sup>38</sup> including one ESCAP member country (Armenia).

#### **(b) Objective**

- To facilitate the crossing of frontiers for goods carried by railway.

#### **(c) Key provisions**

- Establishment and operation of frontier stations where examinations are carried out by the two adjoining countries:
  - Joint examinations;
  - Zone established by adjoining countries; and
  - Reduced time for the Customs and other examinations to which goods crossing the frontiers, particularly in the case of fast freight; transport in international transit; perishable goods, livestock and other goods for which rapid transport is essential, goods dispatched by fast international trains, and heavy goods dispatched in train-loads;
- International transit system
  - Customs seals is subject to the right of each Customs administration;
  - Speeding up the examination of goods in international transit; and
  - Standard international Customs declaration form.
- Miscellaneous provisions

#### **(d) Benefits**

- Lower time required for goods crossing the frontiers by rail; and
- Lower border operating costs and more efficient investments in border facilities.

### **4. International Convention to Facilitate the Crossing of Frontiers for Passengers and Baggage Carried by Rail, 1952**

#### **(a) Overview**

International Convention to Facilitate the Crossing of Frontiers for Passengers and Baggage Carried by Rail was signed at Geneva on 10 January 1952. This convention entered

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<sup>38</sup> [http://www.unece.org/trans/conventn/legalinst\\_46\\_BCF\\_CFGR.html](http://www.unece.org/trans/conventn/legalinst_46_BCF_CFGR.html)

into force on 1 April 1953. There are currently 10 contracting parties to that convention<sup>39</sup>, none of which are in the ESCAP region.

(b) Objective

To facilitate the crossing of frontiers for passengers and baggage carried by railway.

(c) Key provisions

- Establishment and operation of frontier stations where examinations are carried out by the two adjoining countries:
  - Joint examinations;
  - Examination zone established by adjoining countries; and
  - Exemption of immigration procedures for the officials of control authorities.
- Establishment of passenger-friendly procedures for border inspection
  - Control procedures to be carried out mostly inside the train;
  - Clear sequence of control operations established; and
  - Use of customs sealing to avoid examination of baggage and parcels.

## **5. The International Convention on the Harmonization of Frontier Controls of Goods, 1982 (Annex 9)**

(a) Overview

The International Convention on the Harmonization of Frontier Controls of Goods, 1982, aims at facilitating border crossing in international transport of goods through harmonization and reduction of the requirements for completing formalities and the number and duration of border controls.

There are 57 contracting parties to this Convention<sup>40</sup>, including 12 ESCAP member countries (Armenia, Azerbaijan, Georgia, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Mongolia, Russian Federation, Tajikistan, Turkey and Uzbekistan)

The Annex 9 to the Convention is related to the Facilitation of border crossing procedures for international railway freight and entered into force for all Contracting Parties on 30 November 2011.<sup>41</sup>

(b) Objective

- To facilitate and expedite the crossing of borders for international railway freight; and
- To standardize formalities and requirements in respect of documents and procedures in all areas connected with the carriage of goods by railway.

(c) Key provisions

- Facilitating the procedures for borders crossing by officials and other persons engaged in international railway transport;

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<sup>39</sup> [http://www.unece.org/trans/conventn/legalinst\\_45\\_BCF\\_CFPBR.html](http://www.unece.org/trans/conventn/legalinst_45_BCF_CFPBR.html)

<sup>40</sup> [http://www.unece.org/trans/conventn/legalinst\\_51\\_BCF\\_HFCG.html](http://www.unece.org/trans/conventn/legalinst_51_BCF_HFCG.html)

<sup>41</sup> <http://www.unece.org/trans/bcf/news/wp30-011011.html>



- Minimum requirements for border (interchange) stations:
  - Border (transfer) stations to be properly equipped to carry out daily and round-the-clock controls, including phytosanitary, veterinary and other controls where appropriate and adequate for the volume of traffic;
  - Equipment, facilities, information technology and communications systems must be available to enable the exchange in advance of information;
  - Sufficient qualified staff of the railway, Customs, border and other agencies must be on hand at border (transfer) stations to cope with the freight volumes involved; and
  - Ability to accept and use technical approval and inspection data.
- Controls:
  - Establish a mechanism for reciprocal recognition of control;
  - Customs controls relying on the principle of selection on the basis of risk evaluation and management;
  - Simplified controls at border (interchange) stations; and
  - Inspections of transit goods only in cases where these are warranted by the actual circumstances or risks.
- Time limits by improving the technology and equipment used.
- Simplified documentation procedures by using electronic systems.
- Use of the CIM/SMGS railway consignment note as customs document.

## **6. Convention on International Customs Transit Procedures for Carriage of Goods by Rail under Cover of SMGS Consignment Notes**

### **(a) Overview**

The Convention was adopted on 9 February 2006 during the 68th session of the United Nations Economic Commission for Europe Inland Transport Committee. The Convention shall be open for signature by Member States of the United Nations, which are Contracting Parties to the Agreement on International Goods Transport by Rail of 1 November 1951 (SMGS Agreement).

The Convention has not yet entered into force.

### **(b) Objective**

- To establish an international Customs transit procedure for the carriage of goods undertaken by railway companies under cover of the SMGS consignment note.

### **(c) Key provisions**

- Establishment of an Administrative Committee to consider the operation of the Convention, to consider any amendments proposed, and to consider measures to secure uniformity in the interpretation and application;
- Consignment Note bears a special mark (stamp) given in Annex 1;
- Explanatory Notes set out in Annex 2 describe certain recommended practices and interpret certain provisions.

## 7. Initiative on Unified Railway Law

In March 2011, the ECE<sup>42</sup> Inland Transport Committee approved the vision and strategy laid out in a position paper entitled “Towards unified railway law in the pan-European region and on Euro-Asian transport corridors” (ECE/TRANS/2011/3 and Corr.1). It contains a step-by-step approach in three phases, starting with the preparation of a memorandum of understanding or a resolution or declaration on general terms and conditions for Euro-Asian railway transport contracts including a common consignment note, followed by model regulations for international railway transport, and concluding with an international convention on international railway transport.

Phase I was planned to start from March 2011 and end in March 2012. Its target was to prepare the general terms and conditions for Euro-Asian railway transport contracts and sign a Memorandum of Understanding, resolution, declaration or similar instrument to put them into application.

The general terms and conditions would include and address contractual elements, such as:

- (a) Liability rules (level, conditions, limitations, relief);
- (b) Documentation (paper, electronic or both);
- (c) Formal reports;
- (d) Handling of claims;
- (e) Limits of action;
- (f) Compensation between carriers; and
- (g) Further elements that might need to be developed, as required.

The Memorandum of Understanding (or similar instrument) and the general terms and conditions would be prepared and negotiated by a Group of Experts under the auspices of the ECE Working Party on Rail Transport and then adopted by the Working Party. Thereafter it would be acknowledged, signed and formalized by concerned Governments and railway undertakings possibly during the annual session of the ECE Inland Transport Committee.

The timeframe of Phase II was planned between June 2012 and 2015. Its target was to develop the global Model Regulations for international rail transport.

The Model Regulations were considered to consist of two layers:

(a) *Layer one*: Core provisions, generally applicable for international rail transport operations, including those addressed by COTIF/CIM and SMGS and in the general terms and conditions; and

(b) *Layer two*: Regional provisions, applicable for specific international rail transport lines and/or specific regions and geographical areas.

The core provisions were expected to be introduced, step-by-step, into the COTIF and SMGS conventions and agreements to further harmonize provisions in COTIF and SMGS.

New international institution was not planned in this phase. Mechanisms and procedures would be devised that ensure effective coordination and cooperation among existing international institutions.

Phase III (as of 2015) was planned to target a new convention on international rail transport. It was envisaged that the negotiations of the convention would require considerable resources. Further details about the convention were not indicated in the document.

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<sup>42</sup> Common members of ECE and ESCAP: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkey and Uzbekistan.

On 26 - 28 February 2013, the ECE's Ministerial Meeting on "Making the Euro-Asian Transport Network Operational", which was held in Geneva, Switzerland, adopted a Joint Declaration on the Promotion of Euro-Asian Rail Transport and Activities towards Unified Railway Law<sup>43</sup>. The Joint Declaration sets a direction for unification of railway law, including<sup>44</sup>:

(a) Establishment of a unified set of transparent and predictable provisions and legal rules for Euro-Asian rail transport operations in all countries concerned that would facilitate border crossing procedures, particularly for transit traffic;

(b) Unification of international railway law with the objective to allow rail carriage under a single legal regime from the Atlantic to the Pacific; and

(c) On the basis of a future material consensus on unified railway law, identification of an appropriate management system for unified railway law using the experience of international organizations in the field of the railway transport (OSJD, OTIF and others) as well as of international organizations of other modes of transport.

## **B. Subregional Agreements**

### **1. ECO Transit Transport Framework Agreement (TTFA)<sup>45</sup>**

The Economic Cooperation Organisation (ECO) Transit Transport Framework Agreement (TTFA) was signed on 9 May 1998 in Almaty and entered into force on May 2006 with the ratification of 6 signatories. Currently the Agreement has been signed by Afghanistan, Azerbaijan, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkey and Turkmenistan. All those countries have also ratified the Agreement, with the exception of Turkmenistan.

The Agreement covers provisions for transit transport by road, rail, inland waterway, multimodal, and for access to port, with the overall aim of facilitating the movement of goods, luggage and passengers, and provide facilities for transit transport. Specific provisions for rail transport are:

- Part VI, "General conditions for rail transport";
- Annex I, Prescribed transit routes; and
- Annex III, Minimum technical characteristics of railway transport

The Agreement indicates both the railway lines to be used for transit transport and the interchange stations assigned for transit services. The technical characteristics cover aspects such as gauge, number of tracks, loading gauge, distance between track centers, nominal minimum speed, axle load, minimum gradient and minimum useful siding length. The Agreement allows for the easing of minimum requirements for existing lines, as long as other contracting parties are informed. The annex to the Agreement sets maximum times for the handling of goods at the terminals and intermediate stations.

The Agreement encourages the railway administrators to conclude inter-railway agreements and other arrangements that are consistent with the Agreement. More specifically, the contracting parties can formulate rules on use of wagons, and the rules and procedures for international rail passenger and freight traffic. The Agreement specifies that all further agreements and arrangements need to keep in view relevant international agreements (such

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<sup>43</sup> Regional members of ESCAP signed the declaration: Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, the Russian Federation, Tajikistan, Turkey and Uzbekistan.

<sup>44</sup> Key elements abridged from the Joint Declaration.

<sup>45</sup> <http://www.ecosecretariat.org>

as the Agreement on International Carriage of Passenger and the Agreement on International Carriage of Goods), and railway cooperation frameworks such as the OSJD, and UIC.

## **2. Protocol 6 on Railway Border and Interchange Stations of the ASEAN Framework Agreement on Facilitation of Goods in Transit**

The Protocol 6 on Railway Border and Interchange station is one of nine protocols attached to the ASEAN Framework Agreement on Facilitation of Goods in Transit (AFAFGIT) signed on 16 December 1998 in Hanoi, Vietnam.

The Protocol 6 was signed by ASEAN Transport Ministers on 16 December 2011 in Phnom Penh, Cambodia. The Protocol includes provisions for several aspects of railway operations.

It requires contracting parties to provide at assigned border and interchange stations adequate facilities and personnel for transit procedures, rolling stock inspection and other procedures, and to work to harmonize and simplify cross-border procedures where possible. Movement is also facilitated by introducing measures such as coordinated working hours and a commitment to comply with weight restrictions on the route.

It also requires the contracting parties to fix various operational arrangements, including the number and schedule of through goods trains, routes, locations for locomotive servicing, train speeds and classes of rolling stock to be used. The Protocol also sets out the principle for calculating the rates. It is agreed that the trains running to or from interchange stations will be hauled by locomotives of the contracting party on whose lines the train is travelling, and that contracting parties are responsible for making the locomotives available based on the agreed schedule.

The protocol makes institutional arrangements for rail transport by assigning the ASEAN Senior Transport Officials Meeting as the body responsible for the monitoring, review, coordination and supervision of the implementation of the protocol.

## **3. EurAsEC agreements, including the agreements of the Customs Union of Belarus, Kazakhstan, Russian Federation**

There are more than 100 agreements and other legal instruments related to railway transport within the framework of the CIS and EurAsEC (including the Customs Union and Common Economic Space of Belarus, Kazakhstan and Russian Federation).

This publication provides information on selected agreements and other international legal instruments adopted within the framework of the EurAsEC.

*(a) Agreement between the Republic of Belarus, the Republic of Kazakhstan, the Kyrgyz Republic and the Russian Federation on the Establishment of the Transport Union*

Signed on 22 January 1998, this agreement is of framework nature, and covers different modes of transport, including railway transport. Under the agreement, the contracting parties undertake to establish the transport union as an integrated system of national transport systems of each of the countries for joint use of transport infrastructure, more efficient use of transport and reduction of costs, seamless goods of the means of transport across the borders, and implementation of coordinated policy on transport development.

The contracting parties undertake to make efforts in unification of national legislation; development and implementation of joint programmes for transport infrastructure development of the common transport information system; coordination of controls in respect

of third-country means of transport; application of coordinated tariff policy for different means of transport; joint use of wagons and containers and coordinated policy for the development of combined transport for facilitation of border-crossing procedures; coordinated policy on weight and dimensions, and others measures.

*(b) Agreement on the Access to Railway Transport Service, including the outlines of tariff policy signed on 9 December 2010*

The agreement is aimed to guarantee the balance of interests of the users of the railway services of each of the contracting parties. Railways of each of the countries which are the contracting parties to the agreement should provide access to its services to users of other countries on the conditions not less favorable than for the users in their country. The agreement also establishes the main principles for tariff policy which should be applied by the contracting parties. The contracting parties also undertake to establish unified tariffs for carriage of goods on the territories of their countries. The contracting parties also undertake to apply coordinated tariff policy related to carriage of goods to or from third countries in transit through their territories.

*(c) Agreement on special conditions of customs transit of goods carried by railway within the customs territory of the Customs Union*

Signed on 21 May 2010, this agreement is aimed at facilitation of customs transit procedures for goods carried by railway within the Customs Union and provides that railway consignment note, as well as commercial and customs documents with necessary data can be used as a transit declaration. Electronic copy of the transit declaration should be submitted to the customs office.

#### **4. CIS agreements**

*(a) Agreement on railway transport coordination authorities of the Commonwealth of Independent States*

Signed on 14 February 1992, the agreement established the CIS Council for Rail Transport in order to maintain sustainable economic relationship in the field of railway transport between CIS member countries. On the basis of the agreement, the statute of the Council and its executive body, the Directorate, were adopted to define legal status, directions of work, main duties and rules of procedure.

*(b) Agreement between railroad administrations of the Member States of the Commonwealth of Independent States, the Latvian Republic, the Lithuanian Republic and the Estonian Republic on special conditions of implementation of particular provisions of the Agreement on international passenger transport by rail (SMPS) (signed on 28 May 1997), and*

*(c) Agreement between rail administrations of the Member States of the Commonwealth of Independent States, the Latvian Republic, the Lithuanian Republic and the Estonian Republic on special conditions of implementation of particular provisions of the Agreement on the International Goods Transport by Rail (SMGS) (signed on 1 October 1997)*

Both agreements have similar structure and established specific conditions of application of the Agreement on the International Passenger Transport by Rail (SMPS) and the Agreement on the International Goods Transport by Rail (SMGS) for rail carriage of respectively, passengers and goods among the CIS member countries and Estonia, Latvia and Lithuania. The agreements contain lists of, respectively, SMPS and SMGS provisions not applied for rail transport operations and provide sets of rules which are to be applied instead of non-applicable SMPS and SMGS provisions.

*(d) Agreement on the cooperation of the Member States of the Commonwealth of Independent States on harmonization of taxation systems in railway transport*

Signed on 10 March 2000, the parties to the Agreement undertake to establish a set of measures to harmonize the system of taxes and charges in respect of use and maintenance of railways, ownership of rolling stock and incomes of railway undertakings. The measures are to include the coordinated policy of taxation and on amounts of taxes, coordinated policy for customs duties levied in case of import of rolling stock and spare parts, and exemption of railway undertakings of value added tax on transit transportation services (carriage, freight forwarding, loading, unloading and trans loading).

*(e) Tariff agreement of railway administrations (railways) of the Member States of the Commonwealth of Independent States*

Signed on 17 February 1993, the parties to the Agreement undertake to apply:

- The Common CIS Tariff policy;
- The common rules for through tariff scales; and
- The common rules of accounting among the railways.

The Agreement establishes the mechanism of amending the Common Tariff Policy and arrangements for its implementation by the contracting parties at national level.

*(f) Other legal instruments elaborated in the framework of CIS, in particular, rules and regulations listed below are adopted by CIS Council on railway transport*

- Rules of clearing payments connected to using of freight rail cars in inter-state service (4 June 1993);
- Rules on carriage of dangerous goods by rail (5 April 1996);
- Rules of carriage of goods in specialized containers in international service on railways of the Member States of the Commonwealth of Independent States, the Latvian Republic, the Lithuanian Republic and the Estonian Republic (10 March 2000);
- Rules of goods carriage by rails in open-top rolling stock (15 February 2002);
- Regulation on international rail carriage of perishable goods in thermostatic rail cars (19 May 2007);
- Regulation on carriage of perishable goods in general-purpose containers in international rail service between the Member States of the Commonwealth of Independent States, the Latvian Republic, the Lithuanian Republic and the Estonian Republic (29 May 2008).

## **C. Bilateral agreements on railway transport**

Countries also entered into bilateral agreements to regulate various aspect of international railway transport. The key features of the some of these agreements are discussed in the foregoing paragraphs:

### **1. India-Nepal Rail Services Agreement, 2004**

The agreement entered into by Ministry of Railways(MOR), India and Ministry of Industry, Commerce and Supplies(MOICS), Nepal, is valid for ten years from the date of signing and thereon extendable by five years at a time unless termination notice is give by either party six months in advance.

The agreement provides for railway lines to be used, interchange station, train schedules, maintenance of railway tracks and wagons, movement of dangerous and offensive articles, running of trains and shunting activities. Further, the agreement provides for joint mechanical examination of the rolling stock by respective designated agencies of MOR and MOICS and maintenance of records of such inspection at the interchange station. Detailed description pertaining to maintenance of records at the interchange station is provided.

Only ISO specified containers loaded on flat wagons owned by Indian Railways or Container Corporation of India are permitted for interchange. Initially, the transit traffic destined for Birgunj, passing through Kolkata/Haldia ports in India, originating at countries other than India and vice versa is allowed to move between India and Nepal.

In case of accident in the Nepalese territory, the MOR will provide necessary assistance for restoration of traffic and provide material as required. However, the restoration cost will be borne by agency designated by Nepal. There is a provision for establishment of Accident Enquiry Committee to ascertain the cause of accident, assess the cost of restoration and damage due to accident. The committee will also decide on the compensation in respect of the damage payable by the respective parties.

In addition, an annexure to the agreement provides for procedure for Customs examination and clearance of containerized cargo to and from Nepal. The Annexure provides for the detailed procedure to be followed for imports and for exports.

Regarding liability, for MOR, it will be as per the provisions Railway Act 1989 and the Rules for Claims annexed to the agreement. For MOICS, the liability for relevant provisions under the agreement will be assumed by the Nepal. To cover the claims for detention charges and wagon deficiencies, the agreement provides for insurance cover/bank guarantee to be provided by agency designated by MOICS in favor of MOR to cover the cost of operations for three months.

Finally, the agreement provides for consultations and negotiations between the two Governments to resolve disputes or differences. If the dispute is not resolved, the matter may be referred to arbitration on mutual consent of the parties.

## **2. Agreement relating to Rail Communication between India and Pakistan- 2001**

An agreement between India and Pakistan on resumption of rail communication was first entered into on 28 June 1976 for the period of three years and was extended from time to time. In 2001, the earlier agreement was reviewed. The modified agreement contains eight articles covering passenger traffic, freight traffic, mechanical, maintenance and operating arrangements, communication facilities, payment procedure, visa issues and review of the agreement. The agreement governs the traffic between Attari(India) and Wagah( Pakistan).

Article 2 covers passenger traffic and includes provisions relating to sharing of rakes, maintenance of rakes, timetable and composition of express train, stations where customs immigration and health checks will be conducted, passenger fares and luggage charges.

Article 3 details on freight traffic and provides for interchange station, use of standard wagons for interchange, freight payment to be collected by each country up to international border, working of freight train by the using railway. The article provides for maintenance of zero balance in the wagon pool as on 10<sup>th</sup>, 20<sup>th</sup> and the last day of the month failing which hire charges for the net difference between the pool balance would be payable by the debtor country and if the pool balance exceeds 50 wagons, penalty charges are levied.

The agreement provides for multiple entry visas valid for one year on reciprocal basis for railway staff working in connection with interchange of rail traffic.

### **3. Agreement on re-opening of Petrapole (India) - Benapole (Bangladesh) BG interchange route for movement of goods traffic and resumption of rail communication on the section, 1997**

A working agreement between Government of Bangladesh and India to reopen Petrapole (India) – Benapole (Bangladesh) route was signed by the Indian Railways and the Bangladesh Railways. The agreement has nine articles. Article 2 provides for operational details for train movement that includes joint examination of trains at Benapole, timing of the freight train to be decided mutually by both railway administrations, providing information on running of train one day in advance to make necessary arrangement, restriction on type and number of wagons on the train.

The agreement provides Petrapole in India and Benapole in Bangladesh as a place for customs clearance and wagon hire charges same as on Gede-Darsana route. Multiple entry visas valid for one year for railway staff on interchange duty on reciprocal basis are also provided for in the agreement.

### **4. Joint Traffic Working Agreement between Malaysia-Thailand Railway, 1954 as amended in 1989**

An agreement between railway organisations of Malaysia and Thailand was signed to encourage cooperation on various aspects of railway operations including:

- Working of traffic at and joint use of the two boundary stations or joint stations;
- Exchange of rolling stock;
- Payment for hire of rolling stock;
- Through traffic of passengers, live stock and goods;
- Proportional division of fares, freights and other receipts from and through traffic between two countries;
- Liability claims in respect of through traffic; and
- Other matters necessary to ensure efficient and economical working railway operations.

The agreement contains VIII parts and 50 sections:

Part I identifies joint stations of Padang Besar in the Malayan Railway and Sungei Golok in Thailand for dealing with the cross-border traffic. It provides for suitable accommodation for warehouses, offices of Customs, immigration and health at these joint stations. The agreement provides for maintenance of the joint stations and apportionment of cost of renewal and maintenance between the contracting parties.

Part II of the agreement deals with organisation of through passenger and goods traffic where in the provisions pertain to organisation of through goods traffic, rates and fares and their fixation and collection, forwarding and handing over of through traffic, transshipment, examination of rolling stock, situations under which the through traffic can be suspended are elaborated.



Part III of the agreement deals with provisions on rolling stock- hiring and hauling charges thereon, the rates of hiring to be agreed by mutual consent of the heads of two railway organisation, the agreement provides for charges for haulage of trains and of empty vehicles and further provides for maintenance of records of vehicles at joint stations. The responsibility and costs of repairs in case of damage to rolling stock is also provided.

Part IV deals with responsibility in case of loss of life, bodily harm, loss or damage to goods.

Part V deals with provisions to facilitate through traffic by provision of terminal facilities, use of common language, and passes to railway employees.

Part VII provides for settlement of accounts and the last Part deals with application of agreement that includes provisions for settlement of disputes among the railway organisations of two countries.

## V. KEY ISSUES IN THE FACILITATION OF INTERNATIONAL RAIL TRANSPORT

### A. Background

The TAR network shows that the existing railway lines of international importance form an unclosed circular strip, generally connecting the member countries of TAR from Southeast Asia (Viet Nam) to Northeast Asia, Central Asia, South Caucasus, West Asia and end in South Asia (Bangladesh). The open part of the circular strip is the missing links between South Asia and Southeast Asia, and between some countries of Southeast Asia. Inside the circle is the missing links between Northeast Asia and South Asia, Northeast Asia and Southeast Asia (except Viet Nam), and South Asia and Central Asia.

Member countries have been attempting to build new railway lines to complete the missing links. The ASEAN initiative on the Kunming-Singapore rail link will build three links between Northeast Asia and Southeast Asia. The Long-/Medium Term- Master Plan on Railway Network of China will provide two links between Northeast Asia and South Asia through Nepal and Pakistan. An on-going study on connectivity between South and Southeast Asia includes the railway links between the two subregions. The Plan of Afghanistan<sup>46</sup> National Railway Network shows two links between South and Central Asia through Afghanistan. Construction of some sections in these plans has started. Once those initiatives or plans are fully implemented, a complete inter-connected railway network will be formed to link most countries in the region.

Theoretically, passengers and goods can be transported throughout the land-linked subregions at present except most part of Southeast Asia. However, international rail transport on this network only takes place partially in practice due to economic reason and institutional barriers. Extent of the use of railway for international transport is imbalanced in different subregions and between subregions.

Most OSJD member countries included in the TAR network, located in Northeast Asia, Central Asia and South Caucasus, operate international rail transport in a large scale under the framework of OSJD. In 2011, total volume of their international traffic reached over 256 million tonnes<sup>47</sup>.

The scale of international rail transport in other TAR member countries is smaller. In West Asia, cross-border rail traffic between the Islamic Republic of Iran and Turkey, as two member countries of OTIF, was 196,097 tonnes in 2011 and Turkey's transit traffic through the Islamic Republic of Iran 82,340 tonnes<sup>48</sup>. In Southeast Asia, such traffic between Malaysia and Thailand is about 4-6 freight trains per month and between Lao People's Democratic Republic and Thailand can be delivered to the border area in Lao People's Democratic Republic. In South Asia, apart from passenger traffic between Bangladesh and India, and India and Pakistan, freight train from India can reach Bangladesh's and Nepal's ICDs in border areas.

In addition to the inter-subregional traffic among the OSJD member countries, rail traffic between subregions is high in the border areas between Afghanistan and Central Asia. Although railway lines are not long beyond borders in Afghanistan, Turkmenistan and Uzbekistan delivered more than 3.4 million tonnes of cargo to Afghanistan in 2011<sup>49</sup>. The second active inter-subregional transport area is between the Islamic Republic of Iran/Turkey

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<sup>46</sup> Presently Afghanistan is not a member country of TAR.

<sup>47</sup> The figure is summed up from the OSJD Bulletin of Statistical Data of Railway Transport for 2011.

<sup>48</sup> The figures are abstracted from the presentation for the ESCAP Seminar on Promoting the Use of the Trans-Asian Railway through Improved Awareness of Commercial Requirements, held at Bangkok on 23-24 October 2012.

<sup>49</sup> The figure is summed up from the OSJD Bulletin of Statistical Data of Railway Transport for 2011.

and Armenia/Turkmenistan with recently launched Istanbul-Tehran-Almaty container block train. Another long trans-subregional rail transport is the route of Istanbul-Tehran-Islamabad launched in 2009. The traffic between the Islamic Republic of Iran/Turkey and Pakistan was 2,552 tonnes in 2011<sup>50</sup>.

The above situation of railway operations in the region indicates that non-member countries of OSJD and/or OTIF, mainly in South and Southeast Asia, have much less use of railways for international transport. Those countries' railways face more difficulties in international operations than member countries of the two organizations even if their railway lines are connected. The two subregions are relatively independent in railway operations with different operational rules, technical standards, contractual basis of transport, transport documents and inter-country arrangements. This will pose the largest challenge after completion of physical connections with neighbouring countries and in the future operations of the entire regional railway network.

## **B. Key challenges and possible solution to international railway transport**

In general, the countries with international rail transport face some major common challenges, including:

- (a) Congestion and delays at border stations, in particular at the stations with break of gauge;
- (b) Lengthy procedures for crossing borders;
- (c) Lack of harmonization in the documents that are required by different countries;
- (d) Inspections on both sides of border crossings;
- (e) Different technical standards for rolling stock, power supply, braking systems and signalling systems;
- (f) Different operating rules and tariff structures;
- (g) Different requirements for train drivers and crew;
- (h) Incompatible or non-existent cross- border information and data transmission systems; and
- (i) Lack of qualified manpower to operate cross-border trains.

In order to further develop international rail transport throughout the region, a number of key issues needs to be addressed, such as participation in international railway organizations, tackling of difficulties with break of gauge, harmonization of documents, simplification of procedures for crossing borders, and standardization of technical requirements. Some of these issues and many other challenges, such as different operating rules and tariff structures, can be addressed through participation in international railway organizations.

This section elaborates possible solutions to the key challenges mentioned above for members and associate members to consider their policy options and practical steps towards the facilitation of international rail transport.

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<sup>50</sup> The figures are abstracted from the presentation for the ESCAP Seminar on Promoting the Use of the Trans-Asian Railway through Improved Awareness of Commercial Requirements, held at Bangkok on 23-24 October 2012.

## **1. Participation in International Railway Organizations**

The two international railway organizations, OSJD and OTIF, play a key role in coordination and organization of international rail transport among countries in Asia and Europe. As observed from the international rail traffic in the region, the member countries of the two organizations had significantly higher traffic volume than other countries. Both organizations coordinate railway laws, operating rules and key transport documents. Additionally, OSJD also coordinates policy, transit tariff, wagon use, train timetables, safety and technical standards for infrastructure and rolling stock.

With increasing regional integration and intra-regional trade as well as environmental awareness, railways will be used more for international transport. When the entire regional railway network is complete, railways will be used in a large scale for international transport. However, operational systems for railway cannot be established in a short time period. Countries need to gradually harmonize their technical standards, transport documents, operating rules, tariff structures and rules for wagon exchange.

Among the 28 member countries of the Trans-Asian Railway (TAR), 13 are the members of the OSJD and six the members of OTIF, including three member countries with dual membership. 12 countries are not members of any of the two organizations. Therefore, non-members of the international railway organizations need to participate in the activities of the international railway organizations as soon as possible and to borrow their experience in developing international rail transport and gradually prepare themselves for the future regional and inter-regional operations.

When the countries consider participation in the activities of the international railway organizations, a number of key factors may need to be considered, such as demand for transport with which organization's member countries, neighbouring countries' membership of the organization and the future potential for operations on the large regional network.

For examples, some potential benefits of accession to OTIF are indicated below:

The countries for accession must be guided by their economic interest in developing international rail transport. However, COTIF offers effective legal instruments to develop freight, and for those countries that are developing their networks with an international dimension, it provides compatibility with the European technical regulations.

One of OTIF's strengths is the flexibility that implies that the substance of an accession can be adapted to the needs of the rail sector. For example in case of accession of Pakistan, interest was focused on the CIM consignment note, which will enable Pakistan to develop trade links with surrounding countries that apply OTIF law. However, as the tracks in Pakistan and adjoining countries have different gauges, technical collaboration on Appendices F and G of COTIF are not of great interest for Pakistan at the moment.

COTIF therefore allows the implementation of "law interface", which provides the Member States with the opportunity to make their various railway laws compatible so that international traffic can be developed.

Further, COTIF can embrace countries whose structures are very different in terms of technology and the degree of openness to competition. For example, the technical rules of OTIF provide real compatibility with the networks of the European Union. Nevertheless, this does not mean that the structural reforms underway in the European Union, such as the separation of infrastructure managers and railway undertakings, have to be adopted. In other words, there is no specific profile for countries that are interested in acceding to COTIF.

## **2. Subregional and Bilateral agreements**

While participation in international conventions is desirable for promoting rail transport, the role of bilateral and subregional agreements in furthering international rail transport is equally important. These agreements can be stepping stones for countries to expand their railway transport from national to subregional and regional level depending on

the development of trade and transport. Already a number of such agreements are in existence. For example, in south Asia and southeast Asia where most countries are not members of any major international railway organisation, the institutional arrangements for cross-border railway transport are mostly formalised by means of bilateral agreements. The contents of these agreements vary depending upon the requirements of the contracting parties.

In addition, member countries of Economic Cooperation Organisation (ECO) have entered in to Transit Transport Framework Agreement (TTFA). Annex III of the TTFA provides for minimum technical characteristics of the railway transport to be used by transit traffic. Similarly, Protocol 6 on Railway Border and Interchange Stations to the ASEAN Framework Agreement on the Facilitation of Goods in Transit, 1998 provides for cooperation among the railways in ASEAN countries. In south Asia, also, South Asian Association for Regional Cooperation (SAARC) member countries are in the process of finalising a regional railway agreement with main objective to strengthen the regional connectivity over land that will promote regional economic integration.

Coupled with participation in international organisations, these agreements provide a practical way for countries to expand the cross-border railway transport and therefore needs to be supported and encouraged. A model bilateral/subregional agreement covering essential requirements to facilitate railway transport can be developed by ESCAP and shared with member countries on basis of which they can plan, develop and implement such agreements to support railway transport in the region.

### **3. Issues of Break of Gauge**

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 border crossings and partly by inordinate organization of transshipment.

A number of technical solutions exist to reduce its effect on the efficiency of rail services. These solutions include transshipment, bogie changing, the use of wagons with 'variable-gauge' bogies, provision of dual gauge and conversion of different track gauges to a single gauge standard:

- (i) Transshipment/transfer is the transfer of freight by manual or mechanical means from wagons of one gauge to wagons of another gauge directly or indirectly through platform, yard, storage or warehouse, or 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 would be ideal, a break-of-gauge does not constitute a major problem 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-gauges occur 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 allow for transshipment to take place within the time allocated for these other operations.

The Efficient Cross-border Transport Models published by ESCAP sum up some good practices in organizing efficient transshipment at border crossings with break of gauge. Based on the concepts of the Models, countries may streamline their formalities and procedures for crossing borders.

Another ESCAP transport facilitation tool, the Model on Integrated Controls at Border Crossings, may help countries reduce control time with combined use of new technologies while enhancing effectiveness of control measures.

#### **4. Harmonization of consignment note**

Consignment note is the most important document for rail transport. In the past two main railway consignment notes were used, i.e., SMGS for OSJD members and CIM for OTIF members.

The Common CIM/SMGS Consignment Note was introduced in 2006. 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<sup>51</sup>. 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.

There is a trend that the use of the common consignment note will be further expanded to all international rail 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 development trend, their railways lines will be linked to the entire regional network and their rail transport will increase in the short or medium term. Those 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.

#### **5. Use of Advance Passenger/Cargo Information System**

Delays of trains at border crossings are mostly caused by significant time required by control authorities, such as Customs, immigration and quarantine, to process and clear documents and inspect goods. According to the survey made by OSJD, 34.5 per cent of time of international trains was spent for border crossing formalities and 11 per cent for correction of wrong translation of documents. Such unnecessary delays can be substantially reduced with the use of advance passenger/cargo information system.

Advance passenger/cargo information system has been employed in international air and maritime transport for years. However, the use of this system is limited in international rail transport. Its use can be an important step for railway to develop efficient international transport and compete with other modes of transport.

Adoption of common standard is crucially important in applying advance passenger/cargo information system in countries. International organizations, together with member countries, may assist in developing such standard and testing its application in some

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<sup>51</sup> OSJD, Report on the Activities of the Organization for Cooperation between Railways for 2011, P22, 2012.

countries. Compatibility of the standard with that for maritime transport needs to be considered sufficiently to facilitate maritime-railway intermodal transport to fully use the common advantage of the two modes of transport in transport capacity.

## **6. Standardization of Railway Infrastructure and Rolling Stocks**

Safe and efficient operation of railway requires high level of standardization of infrastructure, rolling stock, signalling system, clearance space of structure, axle weight of track and communication system etc.

Currently, railway infrastructure and rolling stocks are not standardized in many countries. It has caused difficulties in cross-border transport. Apart from different track gauges, difference in braking systems prevents cross-border operations of trains in some countries. In other cases, different standards on axle weight of track cause entry of part of one country's train to another country.

UIC plays an important role in railway standardization. So far, 18 of the 28 TAR member countries are also members of UIC. Participation in the activities of UIC may assist member countries to move towards standardization of railway.

Member countries may make particular studies to identify gaps between the existing railway systems and the standards. Based on the findings from the studies, national plans may be formulated to standardize their railway systems step by step in new construction or upgrading of railway systems.

## **7. Coordination of regulatory controls and railway inspections at interchange stations**

Border crossing times can be substantially reduced if customs and other formalities required for train operations can be completed expeditiously. Normally the trains have to undergo Customs controls including inspections, security checks, immigration clearance, and sanitary inspection at the border crossings. In addition, change of locomotive, change of crew, technical inspection of acceptance of wagons and in case of dangerous goods safety inspection is required at the interchange stations. These operations stand alone can be a source of delay and left uncoordinated can compound the delays. Therefore, there is a need for cooperation among the agencies at the interchange stations including railways on the required inspections and controls for smooth cross-border operations of the train.

Standard time can be established for various operations at each border point where inspections take place and some of the operations can be carried out simultaneously. For example, at the interchange stations with no break-of-gauge and no change in waybill, the customs controls should be undertaken with in time needed for other essential operation such as locomotive change. By standardizing and completing the required and unrelated operations in parallel, overall time for clearances at the border can be substantially reduced. This will increase predictability and reliability of freight train services that is crucial to customers.

Annex 9 to the Convention of Harmonisation of Frontier control of Goods provides guiding principles for countries to cooperation for facilitation of international railway transport. The Annex provides for minimum requirements for the interchange stations, joint controls, reducing time and paper required for executing control requirements. It is suggested that countries in the region accede to the convention, if not already done and make efforts to implement relevant provisions that will smoothen border crossing process for railway transport.

One of the important challenges control agencies normally customs face especially with respect to container trains is the inspection of containers. Here, X-ray machines, mobile scanners can be used to have a first stage inspection and if further examination is indicated, such containers can be shifted and taken to examination area. Use of electronic seals on containers can also give real time alert to the control authorities against any tampering of seal.

In addition, customs controls should be undertaken at either origin or destination and during transit exceptionally, when there is a reliable intelligence with control authorities to do so.

## **8. Arrangement for exchange of Wagons**

One of the potent ways to increase international railway transport in the region is to have an arrangement for exchange of wagons among the railway organizations. The contents of various bilateral agreements on railway cooperation in existence reveal that provisions on wagons exchange are integral part of these agreements. The issues covered include detention charges, wagon deficiencies, liabilities in case of accident, and operation of the wagons.

Keeping this in view, a common contract on the use of wagons in national and international transport can serve as basis for standardization of various conditions that can make wagons interoperable on different networks. The contract can cover such aspect as requirements for technical admission and maintenance of wagons, the obligations and rights of accepting railway including the right of refusal, the procedure for ascertainment and handling of damage to wagons in custody of accepting railway and also provide for liability for damage or loss to wagons. Such a multilateral contractual framework can obviate the need for parties to negotiate numerous bilateral agreements for exchange of wagons, while providing interoperability of wagons.

Moreover, this will increase the availability of wagons for international freight movement as well as encourage private wagon manufacturers to augment the supply of wagons. Already some countries in the region have arrangements to encourage private players by schemes such as Wagon Leasing Scheme of the Indian Railways that has objective to develop wagon leasing market by encouraging third party leasing of wagons.

## **9. Use of new technologies in train operations as well as in container tracking**

International freight is growing faster and is estimated to double by 2020. Handling such an increase in cargo by railway transport operators, logistics service providers effectively and efficiently poses enormous challenges for them and makes it imperative for them to use new and extant technologies in such operations. Use of satellite positioning systems, radio frequency identification, cellular communication systems and other information and communication technologies are already being used in various railway operations and needs to be encouraged with innovative and cost effective solutions for efficient cross-border operations of railways.

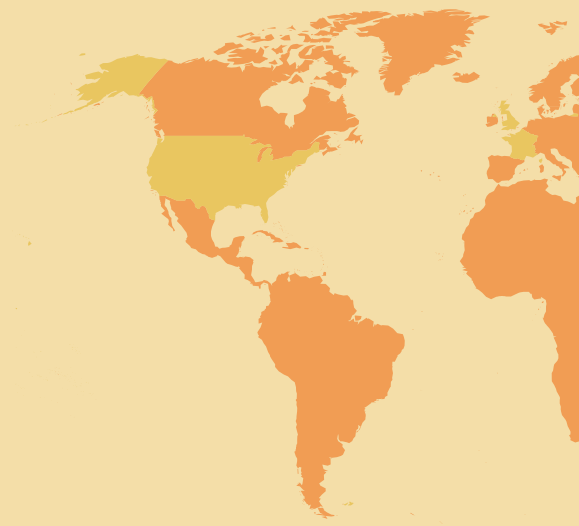
As an example, proper sequencing of wagons is essential for effective delivery of cargo and incorrect order can lead to coupling and decoupling operations wasting time and resources to correct the configuration of train, it can also create problems for customers to track their cargo and is especially challenging for time sensitive cargo. To properly sequence the wagons at transshipment or intermodal terminals, solutions have been developed, where by an active RFID chip is embedded in the railway wagon so that it can transmit its location to RFID reader that supplies the information to central database. This centralized information about the location of railway wagons provide real time information and decision support to railway yard employees and managers. The automatic sequencing of wagons reduces the costly transport mistakes and in addition once the wagon is tagged the rail manger can log the information in the system, confirm train's route and provide precisely the delivery date the arrival of wagon.

This is one example where use of technology can reduce time for train sequencing and increase the predictability of supply chain. Similarly, tracing and tracking of containers by train operators helps to them to schedule container block train, increase asset utilization, reducing dwell time and overheads. The railway of Islamic Republic of Iran is using global positioning system (GPS) to track containers to ensure their smooth movement.



## **10. Developing human resources for cross border railway operations**

- i. Visa for crew and drivers- The cross border movement of trains will require railway officials of one country moving to and from another for various railway operations. Establishment of simplified visa procedures especially for crew and drivers will ensure certainty about their availability and help railway managers to plan and ensure reliability in train schedules. One year multiple entry visas on reciprocal basis is suggested as is provided in many bilateral agreements.
  - ii. Training for railway officials
    - a. Common system for training of drivers- having a common rules or regulations can facilitate interoperability of drivers. A mutually recognised authorisation/certification may be issued by national railway that is acceptable to other railways in the region based on pre-agreed common training to the drivers. This will ensure that the driver is aware of the route he is operating including speed restrictions, signalling systems, emergency procedure enroute.
    - b. Railway training institutes in the region- UIC is developing Asian Network of Rail Training Centres (ANRTC) for exchange of best practices and benchmarking of activities. Currently Asian Institute of Transport Development provides capacity building including training to railway officials of various countries in the region.
  - iii. Regulation on service conditions and facilities for railway officials serving on cross-border routes – This will include stipulating minimum working hours, rest needed before train operations and crew rest rooms.
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