III.1

International Experiences in Developing Intermodal Infrastructure and Services

Introduction

There are encouraging international examples of how to develop integrated transport systems, both from the ESCAP region, as well as from other parts of the world. Most of these examples are at the national level, but international examples have also emerged. More complete lists of such policies, initiatives and projects are contained in the *Review of Developments in Transport in Asia and the Pacific, 2005*[97] and earlier versions of the *Review*.

These presented examples cover all areas of network integration, including intermodal infrastructure and (logistics) services, integration of sustainability objectives, as well as facilitation of cross-border transport and transit.

The purpose of this chapter is to provide a "flavour" of the high-level policies and many initiatives by governments and the private sector in developing intermodal infrastructure and related services. The chapter comprises of selected pen pictures of such policies and initiatives, and includes an overview of related, ongoing ESCAP activities at the subregional level.

Intermodal infrastructure and services

Overview

Countries within the ESCAP region have varying levels of intermodal infrastructure and services. And they face differing challenges (both physical and institutional) in upgrading existing or creating new intermodal infrastructure, or in promoting the use of these systems. Finally, these countries are at different stages in devising strategies to remedy existing deficiencies and planning for future needs.

But common ground amongst countries within the ESCAP region, despite these differences, is recognition by their respective governments and industry groups of the benefits that an intermodal freight system can deliver for social and economic performance. This section presents brief pen pictures of recent developments in

97. http://www.unescap.org/ttdw/PubsDetail.asp?IDNO=178

selected countries which differ greatly in their level of income and the maturity of their intermodal systems. Examples from Australia, China, India, Malaysia, Nepal, and Philippines are given below.

Australia

Australia has recently witnessed a major trend towards intermodal transport methods to move freight. Several state governments have set targets for moving freight to rail (typically 30% to 40% of port-related container movements). In pursuit of these targets, the states, in conjunction with the Australian Federal Government's new 'Auslink' funding programme and the private sector, have made provision for a significant amount of investment into intermodal facilities. As a result, Australia has an advanced intermodal framework of planning and infrastructure. Presented in Box 1 is a case study of Parkes, one of the significant intermodal facilities in

Box 1: Parkes facility, New South Wales, Australia

The Parkes facility is located approximately 365 kilometres west of Sydney and 170 kilometres south of Dubbo. It is owned and operated by FCL. The facility is said to be located at the 'crossroads of Australia' where the Newell Highway (which links Melbourne and Brisbane) intersects with the transcontinental railway (which links Sydney and Perth). It is primarily concerned with the domestic intermodal market moving freight all around Australia.

The site covers 1,000,000 m^2 of land, of which 15,000 m^2 (1.5%) is paved hardstand. The facility includes a covered container storage area of 5,000 m^2. The maximum train length that can be accommodated is 600 meters. On average the facility sees 7 trains per week and 30 trucks per day.

Total annual throughput by rail was nearly 20,000 TEU during the period July 2004 – June 2005. Also, total annual containerised throughput by road was 800 TEU and 70,000 tonnes of non-containerised cargo for this period.

Growth expectations for the terminal are high, with containerised cargo expected to double and non-containerised traffic expected to increase by around 50% over the next five years. Additionally, total non-containerised cargo throughput during the aforementioned periods is estimated at 75,000 tonnes and 100,000 tonnes within the next five years.

There are a number of driving factors behind the expected expansion of throughput to this facility. Firstly, The Australian Rail Track Corporation (ARTC) has signalled its intention to invest $21 million (AUD) on the Main Western Line linking Parkes and Broken Hill which is the main trade route of Sydney to Adelaide corridor. Improvements will focus on raising height clearances, upgrading communication systems, and strengthening and upgrading bridges to improve efficiency and capacity. FCL owns a significant area of land around its present facility, which has been earmarked for future factory and warehouse developments.

Source: *www.fcl.com.au, Visited 20/10/2005.*

Australia. Unlike many intermodal facilities in Australia and other ESCAP countries, Parkes is concerned primarily with the movement of domestic rather that international freight.

China

The Chinese *Tenth Five Year Plan and 2015 Long-term Programs of the Railway Scientific and Technological Development*[98] specifies objectives and key tasks for the major role that Chinese railways are envisaged to play in the development of a national integrated transport system. It emphasizes the building of strategic research and development capacities in high-speed freight and passenger railways, including rolling stock ("technology self-reliance"). It covers construction of new networks, improvement of efficiencies, development of IT and new management methods, social and safety objectives, as well as environmental protection issues.

In China, Hutchison Port Holdings operates an ICD at Guanlan in the Baoan district of China, about 32 km northwest of Yantian International Container Terminals. The Guanlan depot is strategically located in the middle of Shenzhen's major cargo gateways, Yantian Port, Huanggang border crossing, Shekou and Huangtian airport. The depot is also near a number of large industrial areas allowing consolidators and freight forwarders to provide supply chain services, including quality inspection and customs clearance to their customers. Its location also provides empty container storage services for shipping lines.

To take further advantage of the depot, in September 2003, Hutchison Whampoa subsidiary, Logistics Network Enterprise (LINE) negotiated a licence with Guandong and Hong Kong, China authorities, which allows Guanlan Inland Depot to provide truckers with full export containers in return for empties. Prior to this, about half the 13,000 container trucks that crossed the Hong Kong, China-Shenzhen border daily were empty because mainland regulations had prohibited them from taking cargo back out of China.[99]

India

The new approach suggested in the case of India explicitly mentions the aim of following the Chinese example and foresees the development and integration of dedicated rail corridors, multimodal service, high-speed services for freight and

98. Source: Ministry of Railways, China.
99. Joon San Wong, "Transport Link cuts 15% from shipper costs", *Containerisation International News*, 11September 2003, <http://www.ci- online.co.uk/news/showNews.asp?News_ID=7588&st=guanlan>.

passengers, integration with urban transport systems, and highlights the major environmental benefits from the pursuit of a national integrated transport system.[100]

Projects, such as dedicated rail corridors, are seen as key solutions for the increasing congestion in Indian ports (e.g., in Mumbai) which is due to lack of an efficient intermodal system linking ports to major inland cities, for example, linking Mumbai and New Delhi. In essence, it appears that underinvestment in intermodal infrastructure at inland sites and into railways is seen as the prime culprit. This is despite the fact that an increasingly extensive network of ICDs is emerging with many more in the planning stage[101] .

Malaysia

Northport is Malaysia's largest operator of a multi-purpose port, handling 60% of the nation's trade. It is also Malaysia's first port bringing along with it 103 years of heritage. Eighty-one shipping lines as well as 44 conventional and 502 container vessels made approximately 8,000 ship calls to Northport in 2004, providing services to 300 ports of call in major parts of the world.

Northport is a major hub port and an integral component of the transportation pipeline in the region. With increased connectivity to ports in China and East Asia and an increase in the spread of services linking US ports, the Mediterranean and Europe, Northport now offers more links to world-wide ports than any other port in Malaysia and has emerged as one of the major hub ports in the region.[102]

Previously, a number of constraints, including limited ability (due to capacity constraints) to cope with increasing demand, a single track linking Northport to national grid and technology bottlenecks (hampering the evolvement of a fast paperless port business environment) had hindered the further development of Northport.

The management of KTM Berhad Freight Services recently raised awareness regarding the rail mode among public policy planners and players in the logistics sector. It also stressed that apart from the economical aspect, the rail option would relieve stress on roads and ports and would be more environmentally friendly.[103]

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100. Indian Ports Association.. Container Rail Corridors: An Approach Paper, shipping.nic.in/ approach paper.htm.
101. Concor India, www.concorindina.com
102. http://edi.navis.com/aame.jsp. Visited 29/11/2005
103. http://www.northport.com.my/news_view.asp?nid={2005C082-FBD4-41CB-9AC0-E5317C02F343}

As a result of government and private sector initiatives and expenditure on intermodal infrastructure, numerous economic benefits have been witnessed for both Northport and Malaysia as a whole. For example, landbridging has reduced the transit time of freight of Malaysia to Bangkok from 5 days via a sea feeder to 2.5 days via rail. It is estimated that freight costs in the above scenario are 30% lower by rail. Consequently, rail connectivity has offered greater efficiency, shorter transit time and lower costs. It has also offered great potential in attracting refrigerated cargoes and motor vehicles from Bangkok – which, in turn, would be shipped out of Port Klang. Flow-on effects of the improvement in intermodal infrastructure have allowed Northport to support the distribution activities at Northport Distripark and Southpoint. Furthermore, it has eased pressure and lowered dwelling time of containers at Northport during busy periods.

Nepal

In Nepal, the increasing containerisation of trade and the need for streamlining transit trade, necessitated the implementation of the Nepal Multimodal Transport and Trade Facilitation Project (NMTTF). Detailed studies were undertaken in 1994-95. One of the major components of the trade facilitation project was the construction of three Inland Clearance Depots (ICDs) in the bordering towns of Biratnagar, Bhairahawa and Birgunj, which are key land customs points. The first two are road-based and the third one is a rail-based facility. The ICDs are designed to offer the complete range of modern infrastructure with a view to facilitate expeditious clearance of import and export cargo movement by containers.

The Biratnagar ICD is spread over an area of 2.86 ha and the Bhairahawa covers 3.23 ha. The Birgunj ICD, located at Sirsiya, 4 km west of Birgunj town, is the biggest of all the three, stretching over an area of 38 ha. It is connected by broad gauge rail line with the Indian border town of Raxaul. Six full-length railway tracks inside the ICD were constructed with the grant assistance of the Government of India. The Birgunj ICD is equipped to provide rail/road transhipment, storage and customs facilities for containerized, break-bulk and bulk cargo moving by rail.

The construction of the Birgunj ICD was completed by the end of December 2000 with the completion of rail line construction in March 2001. In addition, the construction of a four kilometres long road link from the ICD to the main highway was also completed in April 2001. Under the project, three reach stackers of 45 ton and one reach stacker of 7.5 ton were made available at the ICD for handling empty and loaded 20-ft and 40-ft ISO containers.

In March 2002, management and operation of the road-based facilities at Biratnagar and Bhairahawa were handed over to a Nepal-India joint venture company selected through competitive bidding on a 10-year lease contract. The operation of the Birgunj ICD, however, is awaiting the finalisation of a bilateral Rail Services Agreement between India and Nepal. Once this happens, it is anticipated that the new land-based port will lead to improved efficiencies and cost savings in the movement of Nepal's containerized exports and imports.[104]

An integral component of the NMTTF Project is to provide private sector freight forwarders with the opportunity to learn about the practices and principles of freight forwarding and intermodal transportation through training workshops and seminars. The project has also established a consultative mechanism – the National Trade and Transport Facilitation Committee (NTTFC) – to advise the Government of Nepal in implementing trade and transport facilitation measures, including policy reform.

The Philippines

The Philippines, which requires freight to move through the archipelago combining air, sea and road, has a natural requirement for freight to be moved using more than one mode of transport. Consequently, intermodal transport systems have been identified as playing a crucial role in the economic development of the widely dispersed regions of the country and are intended to alleviate areas with high poverty incidence. Historically, many regions have suffered from inadequate infrastructure facilities, and lack of reliable and safe transport services which significantly impede the movement of freight.

In 2003, the Department of Transportation and Communications commissioned US$1 million to prepare an intermodal transport project to improve the existing infrastructure within the Phillipines[105]. This initiative will complement the Government of the Philippines efforts to develop the Strong Republic Nautical Highway.[106]

ESCAP projects on subregional integrated transport networks

As a first step to support and promote regional cooperation in the development of an Asian integrated transport network, the ESCAP Secretariat has started carrying out subregional studies on the issue. The first completed study focused on North-East Asia, as the countries concerned (China, the Democratic People's Republic

104. Purushottam Ojha , op. cit.
105. www.adb.org/Documents/Profiles/PPTA/37233012.ASP
106. This initiative is described in greater detail in Chapter 14.

of Korea, Japan, Mongolia, the Republic of Korea and the Russian Federation) do not benefit from a formal economic grouping to facilitate trade and transport, in contrast to ASEAN, ECO and SAARC. The second such study currently being undertaken focuses on Central Asia, as mandated by the 2nd session of the Committee on Managing Globalization of ESCAP in October 2005. These and future subregional projects by ESCAP on integrated transport networks are expected to follow the ESCAP methodological approach explained in this monograph.

Among the countries of North-East Asia there is increasing demand for an integrated transport network that combines the different transport modes of rail, road and shipping and will facilitate trade flows and, in turn, trade-dependent economic growth. In order to address issues related to the development of integrated transport, the ESCAP Secretariat, in conjunction with the UNDP Tumen Secretariat is implementing a project on an integrated international transport and logistics system for North-East Asia. The main objectives of the project are to: (a) assist countries in adopting integrated transport planning and logistics concepts, thereby improving efficiency and reducing costs to enhance competitiveness; and (b) promote multilateral cooperation for the development of an integrated international transport and logistics system at the subregional level.

In the first phase of the project, a study was carried out to identify critical areas for transport and logistics performance improvement[107]. Six international transport corridors in North-East Asia, including road and railway networks linking neighbouring countries and providing connections to major port clusters in the subregion, were identified (Figure 12). The basis for the subsequent route selection was the Trans-Asian Railway and Asian Highway. For each corridor, feasible unimodal/intermodal routes along the corridor with sea container or ferry services were analysed and in-depth route analysis was undertaken, in order to identify physical and non-physical barriers on selected routes. In particular, the study identified substantial losses of time and costs that are associated with intermodal transfers[108] and border crossings.

As part of the project, a policy-level expert group meeting was organized in Ulaanbaatar from 6 to 8 September 2004. The meeting adopted the proposed integrated international transport and logistics network for North-East Asia with its mix of major routes and corridors (appropriate roads, railways and water

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107. ESCAP (2005). Integrated International Transport and Logistics System for North-East Asia, Draft for the Workshop (same title), 11-12 April 2005, Ulaanbaatar.
108. owing to logistics issues and the time needed to consolidate containers to form full train loads

transport), including connections to major seaports. Intermodal interfaces, such as inland container depots, freight terminals and distribution centres and border crossings were also identified as important nodes along the routes. The meeting adopted an action plan required to develop the integrated network (Box 2).

Box 2: ESCAP action plan for an integrated international transport and logistics system for North-East Asia

- Eliminate missing links and improve conditions of related infrastructure along the major corridors and identify and prioritize infrastructure development requirements through analysis of the trade and transport markets to determine possible traffic volume along the routes and border crossings.
- Simplify and harmonize transport and trade procedures and documentation, particularly related to border crossings along the selected transport routes, and consider unification of such procedures and documentation.
- Strengthen the position of transport and logistics intermediaries, including freight forwarders, multimodal transport operators and logistics service providers.
- Carry out a study on the role of ICT in transport facilitation and logistics with the development of guidelines for ICT application in North-East Asia.

Most recently, the Intergovernmental Agreement on the Trans-Asian Railway network was signed in November 2006. The agreement specifies minimum standards for international container terminals (Annex II) and includes a list of stations that can handle ISO conatiners of at least 20ft dimension (Annex I).

Figure 12: Proposed integrated transport network in North-East Asia

III.2

Cross-border Facilitation and Transit for Landlocked Developing Countries

Due to the existence of national borders, a number of initiatives have to be taken to address cross-border transport and transit, in addition to the development of intermodal infrastructure and efficient services. This chapter provides a bird's eyeview of some of the issues that arise and how they are addressed, particularly through facilitation agreements. These initiatives are an integral part of the development of an Asian Integrated Transport Network.

Transit transport issues in landlocked and transit developing countries

There is an excellent ESCAP study, entitled "Transit transport issues in landlocked and transit developing countries"[109], which includes detailed information based on case studies of Kazakhstan, Uzbekistan, Lao PDR, Mongolia and Nepal. This section draws on this study and the reader is referred to it.

Background

Owing to geographic and other related attributes, landlocked developing countries are confronted with a range of special constraints that inhibit their full participation in the globalization process. The ESCAP region is home to 12 of the world's 30 landlocked developing countries. Of these, Afghanistan, Bhutan, Lao People's Democratic Republic and Nepal are least developed countries, while Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan and Uzbekistan are economies in transition. Each of these landlocked countries is disadvantaged by its lack of territorial access to and distance from the sea.

For the landlocked countries, problems of distance are substantially compounded by their need to cross international borders and by their inability to regulate the through transport process. As a result, the delivered costs of imports are higher, exports less competitive and attraction for the foreign direct investment reduced.

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109. ESCAP (2003). Transit transport issues in landlocked and transit developing countries, ST/ESCAP/2270.

Economic development in the Asian region and emerging opportunities for interregional trade are stimulating new directions of trade which are creating a demand for landlocked countries to become "land-linking" countries and provide important transit services to their transit neighbours. In this regard, both landlocked and neighbouring transit countries can benefit from actions taken to increase the efficiency of transit transport.

To highlight the continuing problems faced by landlocked and transit developing countries and the need to improve their transit transport systems, the General Assembly adopted resolution 56/180 of 21 December 2001 on specific actions related to the specific needs and problems of landlocked developing countries, by which the Secretary-General was requested to convene an international ministerial meeting on transit transport cooperation. Subsequently, by resolution 57/242 of 20 December 2002 on preparations for the International Ministerial Conference on Transit Transport Cooperation, it was decided that an International Ministerial Conference of Landlocked and Transit Countries and Donor Countries and International Financial and Development Institutions on Transit Transport Cooperation should be convened at Almaty on 28 and 29 August 2003.

By resolution 57/242, the General Assembly also requested the Secretary-General of the Conference to organize, in close cooperation with the regional commissions, a number of intergovernmental regional and subregional meetings as part of the preparatory process for the Ministerial Conference. In response to this request, the Secretariat developed a methodology for analyzing transit transport corridors and analyzed four case studies. The framework of recommendations and action plan were subsequently reviewed and endorsed by the Commission at its 59th session (first phase) on 24-25 April 2003 as the regional platform to be submitted to the International Ministerial Conference. The key issues contained in the action plan are:

- Policy-related actions
- Improved coordination within and between countries
- Trade and transport facilitation
- Promoting competition in the provision of transit transport services
- Better monitoring
- Enhancing transit infrastructure
- Application of ICT
- Capacity-building and human resources development for transit transport

Issues

Efficient transit transport is crucial for landlocked nations. Due to their lack of territorial access to seaports and the prohibitive cost of airfreight, landlocked countries have to rely on the transport of goods by land through one or more neighbouring countries. The additional costs incurred together with the problems of distance, make imports more expensive and render exports less competitive, thus putting landlocked countries at a disadvantage in the global economy. Some of the major factors influencing the transit transport systems of landlocked and transit developing countries in the Asian region are:

- Availability and quality of infrastructure
- Limited choice of routes
- Trade and transport facilitation and border crossings issues
- Opportunities of intermodal transport
- The importance of cross-border cooperation
- Transit transport agreements
- Changing global economy

Time-cost diagrams

For the analysis of routes and corridors, ESCAP has promoted the use of time-distance and cost-distance diagrams along specific paths through the networks across borders and across transport modes. This approach was also used for the case studies contained in the transit study mentioned above.

In the time-cost approach, costs and time associated with transport by any mode (road, rail, inland waterway and sea) and with transfers between modes (at ports, rail freight terminals and inland clearance depots) as components are included. The approach is based on the premise that the unit cost of transport varies between modes and this gets reflected in the cost curves. For volume movements, sea transport is generally cheapest per tonne per kilometre and road transport is normally the most expensive, with transport by waterway and rail in an intermediate position.

This simple approach has proved to be useful in the debate over the value of time in freight transport operations by analyzing transit times by mode and route. The longer freight takes to reach its destination (including dwell times at terminals), the greater will be the implicit interest costs of working capital. Total implicit costs may, however, be a good deal higher, since some goods may be needed urgently and business may be lost if goods arrive too late. The value of time will ultimately depend on the nature of the commodities being transported. It may be pointed out that the cost of delays has also to be taken into account when appraising the risks attached to specific routes and transport modes. As part

of the analysis of the transit routing decision, it is important to examine the trade-off between the monetary outlays for transport and the implicit costs of time.

Points of transhipment, at border crossings or between modes, are incorporated into the cost curves as vertical steps. For example, at ports and inland terminals, a freight handling charge is levied without any material progress being made along the supply chain; therefore, the costs incurred here are represented by a shift upwards in the cost curve at these points. The vertical steps can also be broken down to reflect different types of charges or processes involving time, such as document fees, transit charges and cargo clearance costs. In this regard, bottlenecks at points of transhipment can be analyzed in themselves and as part of the overall route.

Using this time-cost approach, results from the ESCAP transit study of 2003 are summarized in Figures 13 and 14.

Figure 13: Average transit time for the export of containerized cargo (Per TEU; for Kazakhstan – Germany per half of 12 meter semi trailer)[110]

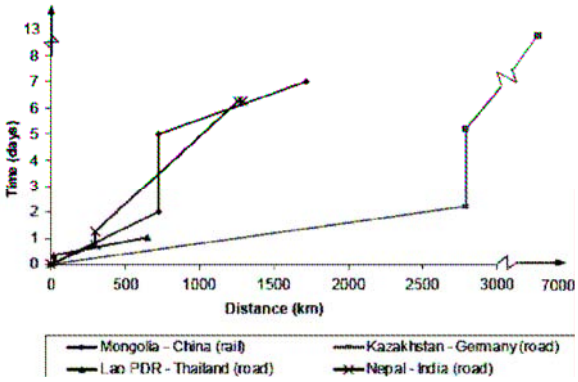
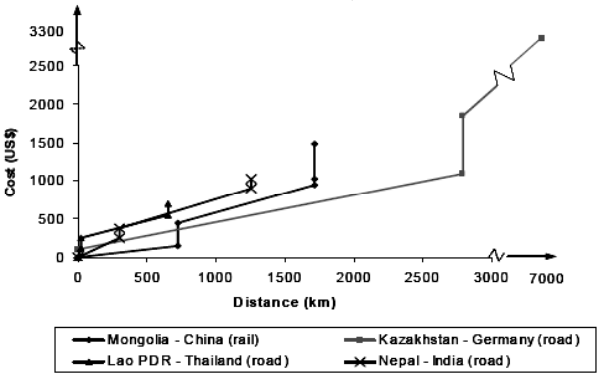


Figure 14: Average transit costs for the export of containerized cargo (Per TEU; for Kazakhstan - Germany per half of 12 meter semi trailer)[110]



Recommendations and action plan

The recommendations listed below have been formulated and refined through the four subregional seminars held in Kazakhstan, Lao People's Democratic Republic, Mongolia, and Nepal and endorsed by the 59th session of the Commission (first phase) on 25 April 2003. They seek to focus resources and inputs of landlocked and transit developing countries, donor countries,

110. The transit routes researched were: Ulaanbaatar – Zamiin Uud – Erenhot – Tianjin Port (rail); Almaty – Kurlin – Krasnoe – Berlin (road); Kathmandu – Birgunj – Raxaul – Kolkata Port (road); and Vientiane – Thanaleng – Nong Khai – Bangkok Port (road).

international financial organizations, development institu-tions and the private sector on improving the efficiency of transit transport and thereby access to global markets. The recommended actions also recognize the increasingly important potential of landlocked countries to provide transit opportunities for their neighbours, an important factor in the planning of future transit arrangements.

(a) Policy-related actions

While landlocked countries do need the cooperation of neighbouring countries in developing efficient transit transport and access to international markets, they also need to demonstrate their commitment to improve the transit process through the formulation and implementation of a clear and consistent national policy. It is important that landlocked countries coordinate among themselves, ensure representation at international meetings and articulate their position with a single voice.

(b) Improved coordination within and between countries

Along with the development of transport infrastructure comes the need to formalize arrangements with regard to the operation and facilitation of transit transport. Multiple agreements at a bilateral, trilateral and subregional level along with international conventions are resulting in some countries having overlapping and sometimes contradictory obligations. The need to ensure a consistent, and to the extent possible, harmonized legal regime for transit transport across the region is thus important.

(c) Trade and transport facilitation

Simplification and harmonization of transit transport documentation along transit routes and across the region could lead to immediate benefits in terms of simplification of procedures and reduction in transit costs and time. With the potential growth in transit transport through landlocked countries, both landlocked and neighbouring transit countries can benefit from actions taken to increase the efficiency of transit transport. As road transport takes on an increasingly important role in providing transit transport services, there is need to consider equitable approaches to the charging of transit/road maintenance fees.

(d) Promoting competition in the provision of transit transport services

Transport service providers from landlocked countries are sometimes restricted from offering services in the territory of their transit neighbour, even for the carriage

of national goods in transit. Limited competition between operators, modes of transport and alternative routes may lead to inefficient pricing policies and services.

(e) Better monitoring

The cost/time diagrams utilized in the ESCAP case studies can provide countries with a snapshot of the current performance of transit transport routes. They can also provide policy makers with a clear view of the critical problems facing transit transport and a methodology for monitoring the impact of efficiency improvements. They could facilitate comparisons with other transit routes/border crossings within and outside the country, with a particular focus on, and the identification and transfer of, best practices.

(f) Enhancing transit infrastructure

Development of transport and information and communications technology (ICT) infrastructure, and completion of the "missing-links", would improve transit transport and enable landlocked countries to provide transit transport services to neighbouring countries. An integrated approach is needed to balance competing priorities in the development of road, rail and other infrastructure. While alternative transit routes are important, volume and economies of scale contribute to the reduction of unit costs. The availability of a choice of routes will allow the trade and transport industries to select the most effective route on a commercial basis. In this context, it may be pointed out that the role of the private sector in providing and managing infrastructure facilities along transit corridors is still limited.

(g) Application of information and communications technology

ICT applications can assist customs authorities in performing their duties and in building a data bank of information. ICT applications can also effectively increase the efficiency of various processes within the transport sector, provide connectivity between neighbouring countries and enhance the ability of shippers to track their goods.

(h) Capacity-building and human resources development for transit transport

Landlocked countries need to create a greater awareness of international developments with respect to transit transport and increase the capacity of government officials and private sector in addressing issues of concern.

Facilitation Agreements

Resolution 48/11

The forty-eighth session of ESCAP[111] adopted resolution 48/11 of 23 April 1992 on road and rail transport modes in relation to facilitation measures, which recommended that countries in the region should consider acceding to seven international conventions in the field of international land transportation facilitation as a cost-effective prerequisite step towards enhancing road and rail transport routes throughout the region. Twenty-eight countries in the ESCAP region are members of the project.[112]

In order to facilitate the movement of goods, people and vehicles across international borders, there are around 50 international conventions. In the ESCAP region, the ESCAP Secretariat has been working closely with the International Maritime Organisation (IMO) and the Economic Commission for Europe (ECE), the body designated within the United Nations system with the responsibility for land transport conventions, in promoting a selected subset of these conventions including the following:

- Convention on Facilitation of International Maritime Traffic (FAL 1965) (1998 edition);
- Convention on Road Traffic (Vienna, 8 November 1968);
- Convention on Road Signs and Signals (Vienna, 8 November 1968);
- Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention) (Geneva, 14 November 1975);
- Customs Convention on the Temporary Importation of Commercial Road Vehicles (Geneva, 18 May 1956);
- Customs Convention on Containers (Geneva, 2 December 1972);
- International Convention on the Harmonization of Frontier Controls of Goods (Geneva, 21 October 1982); and
- Convention on the Contract for the International Carriage of Goods by Road (CMR) (Geneva, 19 May 1956).

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111. ESCAP Transport and Tourism Division, Asian Land Transport Infrastructure Development (ALTID) project, 1992-ongoing, <http://www.unescap.org/tctd/lt/altid.htm>.
112. http://www.unescap.org/ttdw/

The implementation of Resolution 48/11 has been supported by a number of ESCAP activities, including:

(i) Seminars on implications of accession to land transport facilitation conventions for:

– ECO countries (Tehran, 15-17 November 1994);

– North-East Asian countries (Bangkok, 8-10 May 1996);

– Greater Mekong area (Bangkok, 26-29 November 1996);

– SAARC countries (Dhaka, 8-10 December 1997);

– World Bank/ESCAP regional technical workshop on South Asia regional transport and transit facilitation (Bangkok, 19-21 April 1999);

– national seminars: Myanmar and Thailand (Bangkok, April 1998); Hanoi and Vientiane (17-19 and 21-23 September 1998, respectively); for Bangladesh and India (New Delhi, 19-21 May 1999); Phnom Penh (31 May-2 June 1999); Beijing (19-21 July 1999);

(ii) Publications, including the proceedings of each of the above seminars as well as:

– "Transport Planning for Landlocked Countries: Transit and Border-Crossing Issues" (ST/ESCAP/1484, 1995);

– "A Review of Regional and Subregional Agreements on Land Transport Routes: Issues and Alternative Frameworks" (ST/ESAP/2034, 1999).

During the period 2001-2002, Azerbaijan acceded to the Convention on Road Traffic (1968) and Georgia acceded to the Convention on Road Signs and Signals (1968). Mongolia also ratified the Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention) in 2002, which made the TIR system operational from Europe to northern part of North-East Asia through Central Asia.

The Agreement for Facilitation of Cross-border Transport of Goods and People in the Greater Mekong subregion has incorporated major provisions of the seven conventions into its annexes which are being negotiated.

Subregional framework agreements

Countries of the region are also developing subregional framework agreements designed to facilitate the movement of goods, people and vehicles across borders.

(a) ASEAN

By promoting the FAL convention and the seven conventions contained in resolution 48/11, the ESCAP Secretariat has assisted ASEAN in the development of a multimodal transport framework agreement, which will provide the basis for domestic legislation on multimodal transport.

The ASEAN Framework Agreement on the Facilitation of Goods in Transit was signed on 16 December 1998.[113] Nine protocols on specific arrangements of transit transport were planned for implementation of the agreement. Following signing of the agreement, 3 protocols were concluded during the period 1999 – 2000. Two protocols were signed in 2001 and 2002, namely, Protocol 5, the ASEAN scheme of compulsory motor vehicle third-party liability insurance, and Protocol 9 on dangerous goods. Four more protocols on transit routes and border posts and customs procedures are expected to be signed in the near future: these will enable the practical operation of transit transport under the agreement.

The ASEAN countries are also negotiating the ASEAN Framework Agreement on the Facilitation of Inter-State Transport to simplify and harmonize requirements for cross-border transport.

(b) Greater Mekong Subregion

The Greater Mekong Subregion includes China (Yunnan Province particularly) and five ASEAN member countries, namely, Cambodia, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam. The Agreement for Facilitation of Cross-border Transport of Goods and People was signed by Lao People's Democratic Republic, Thailand and Viet Nam on 26 November 1999. It was acceded to by Cambodia on 29 November 2001 and by China on 3 November 2002.[114] Myanmar is also expected to sign in the near future.[115] The agreement is supplemented by 15 annexes and 3 protocols to form an operational system for cross-border and transit transport. The negotiation on 7 annexes and 1 protocol was started in 2002 as the first of three stages to be entirely completed in 2005.

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113. ASEAN web page, "ASEAN Framework Agreement on the Facilitation of Goods in Transit", <http://www.aseansec.org/8872.htm>, 4 November 2003.
114. ADB web page, "GMS Summit", <http://www.adb.org/Documents/Events/Mekong/2002/bn-01.asp>, 4 November 2003.
115. ESCAP, 2003. *Transit Transport Issues in Landlocked and transit Developing Countries* (ST/ESCAP/2270).

(c) TRACECA

The Basic Multilateral Agreement on International Transport for the Development of the Transport Corridor Europe- Caucasus-Asia routes, and its technical annexes were signed by Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Romania, Tajikistan, Turkey, Ukraine and Uzbekistan on 8 September 1998. An Inter-Governmental Commission (ICG) TRACECA has been established to administer and promote the agreement. The signatories to this agreement are also contracting parties of major conventions on international land transport formulated under the auspices of ECE. The basic principles and requirements for international land transport under the agreement are complemented by the conventions. A project on harmonization of border crossing procedures commenced in 2001 to standardize the documents and control the processes.

(d) ECO

The members of the Economic Cooperation Organisation (ECO), namely, Afghanistan, Azerbaijan, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkey, Turkmenistan and Uzbekistan, signed the Transit Transport Framework Agreement on 9 May 1998. In 2002, ECO undertook a reconciliation of the inconsistencies between this agreement and the Transit Trade Agreement signed on 15 March 1995. The eight annexes of the agreement will be in place after the completion of the reconciliation process.

ECO is making efforts to promote the application of the TIR Convention across the ECO region. The Central Asian countries issued 9,450 TIR carnets in 2002.

Bilateral agreements

In addition, an increasing number of bilateral agreements have been concluded. See, for example, the *Review of developments in transport in the ESCAP region, 2003*[116] .

116. http://www.unescap.org/ttdw/Publications/TPTS_pubs/pub_2307.pdf