

## **V. ROLE OF TRANSPORT IN INTEGRATING ECONOMIES INTO THE MULTILATERAL TRADING SYSTEM**

### **A. Background**

The role of transport in economic development is usually discussed in relation to its contribution to the development of domestic trade. Globalization has changed this perception. The ability of a country, and particularly the more isolated communities within a country, to participate in trade depends on the quality of transport and communication infrastructure that allows them access to the world trading system. If liberalization of trade can open new markets for developing countries, then efficient transport systems and transport routes will be needed to connect domestic producers with these markets. Appropriate transport costs, timely delivery and the quality of services<sup>65</sup> provided are essential elements in calculating and assessing the competitiveness of products for global markets.

A range of infrastructure and institutional barriers still inhibit competitiveness of the Asian and Pacific products in the global market. Provision of truly cost effective transportation linkages therefore remains a policy priority in an era of rapid globalization. The role of transport is examined here in the context of globalization and the multilateral trading system from two perspectives: (1) transport as a service to trade, and (2) transport as a service that is tradable. However, the discussion is not subdivided into separate perspectives, because some developments taking place in the transport sector have an impact on diversification, expansion and competitiveness of trade, as well as development of transport services as a value-added service industry. The discussion focuses on evolving transport issues in the Asian and Pacific region and how resolving these issues can assist developing countries to integrate further into the multilateral trading system on a more equitable and fair basis.

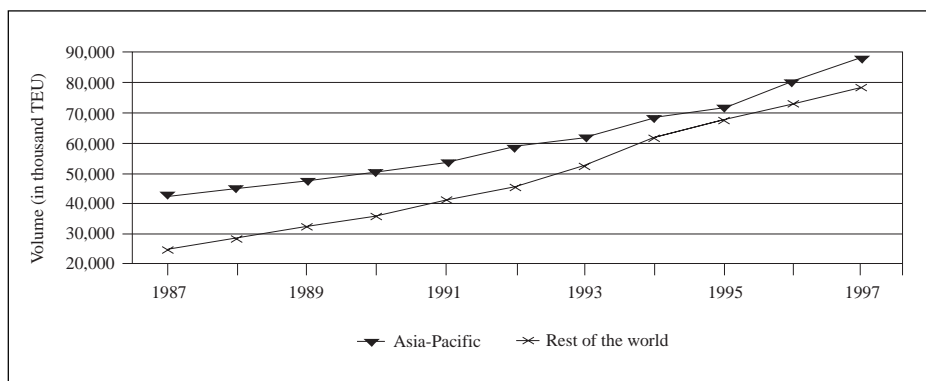
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<sup>65</sup> Quality of services includes reliability, punctuality, security/pilferage and additional services including the level of information provided to customers.

## B. An overview of challenges in the transport sector

To date, the maritime sector has been the principal facilitator of the globalization process. Massive increases in ship size, with oil tankers of up to 500,000 tons deadweight and dry bulk carriers of up to 370,000 tons, have reduced the unit costs of transport, shrinking economic distances between raw material suppliers and processing facilities. The advent of the container and the development of containerization, which has brought global manufacturers and consumer markets together, have further aided the process. In 1997, container traffic handled at Asian ports represented more than 47 per cent of the world port container throughput, as shown in figure 3.

**Figure 3. Port container throughput**



Source: Containerisation International.

Reduced maritime transport costs and the speed and ease with which containers and their contents can be moved between one mode of transport and another have created new possibilities for global sourcing in international production. In turn, this has provided the opportunity to explore national and regional comparative advantages and has been a major driving force of economic development.

Unfortunately, in many member countries and areas of ESCAP institutional and infrastructure bottlenecks have meant that economic development has been largely confined to urban areas and along coastline

corridors, which have easy access to international maritime transport. Broad-based economic development through globalization makes it vital to remove the bottlenecks and create cost effective maritime and land transport links, which have access to a wider domestic hinterland.

Until recently, conditions were not conducive to the development of intraregional and interregional land transport linkages. Civil wars in a number of countries, subregional conflicts and the Cold War caused considerable damage to land transport infrastructure in many countries and created barriers to international land transport. These unfortunate events prevented the transport networks from being organized in line with commercial and trade considerations. Since the early 1990s there has been a notable increase in cooperation among nations in Asia and the Pacific. In addition to the activities of ESCAP, a number of initiatives are being taken at the subregional level in ASEAN, ECO and SAARC to extend maritime links and facilitate the movement of vehicles and goods across borders.

### **C. Transport and trade**

The transport sector of the Asian and Pacific region already has much to its credit. Natural sea routes have been enhanced with a network of ports with 12 of the world's 25 busiest container ports located in Asia. Countries of the region own more than 40 per cent of the world's fleet. In addition, 80 per cent of the world's new shipping tonnage is built in Asia and 83 per cent of all maritime shipping containers are manufactured in Asia (UNCTADb, 1999). ESCAP-member countries supply 65 per cent of the seafarers employed with the world's maritime fleet.

The Asian Highway and the TAR networks demonstrate the commitment of the mainland countries in the region to open routes that would facilitate intraregional trade and provide easy access to massive hinterlands, many of which remain almost untouched by economic development. The planned transport corridors between the countries will also enhance links and further integrate Asia with the markets of Europe and North America through integrated land-cum-sea routes.

Globalization and economic liberalization have led to a marked shift in production to countries, which have a significant comparative advantage.

This development has been a major determinant in the rapid industrialization and economic growth in some parts of the Asian and Pacific region. The new prosperity, however, has not been equally distributed across economies in the region or among various locations within individual countries.

## **1. Developments in maritime transport**

World sea-borne trade stood at 5,064 billion tons in 1998, accounting for over 90 per cent of world trade (UNCTADB, 1999). Bulk cargo constituted over 75 per cent of sea-borne trade with general cargo accounting for the balance. While on the demand side, there has been a steady annual growth of overall sea-borne trade, on the supply side substantial investment in new tonnage has contributed to an oversupply of ships in the liner, bulk and tanker markets. With the increase in tonnage and the resultant downward pressure on global freight rates, shipping lines have followed various strategies to reduce costs and improve levels of efficiency. The desire to achieve economies of scale, particularly in the liner-shipping sector, has seen a remarkable increase in the size and capacity of container vessels over the last three decades.

Although liner shipping carries less than 25 per cent of the world's sea-borne trade, its influence on the development of the global market continues to be far greater than bulk trade. This influence is particularly strong in the case of containerized transport.

When shipping lines began to change to containerization in the late 1970s, vessels of about 1,000 ten-foot equivalent units (TEU) were the norm. By 1985, vessels of 2,500 or more TEU were already common. At present, new vessels with a capacity of 6,000 TEU have come on stream, the majority of which are deployed on routes serving the Asian region, resulting in a high average vessel size, as displayed in figure 4. This development alone has had a substantial beneficial impact for shippers and economies in general by enhancing competitiveness and giving Asian products access to the world market. It has also made it increasingly difficult for developing country ship owners to compete with the major international shipping operators in all but niche markets. In the port sector, the situation has called for huge new investments in infrastructure and equipment.

**Figure 4. Average size of container ships by route**

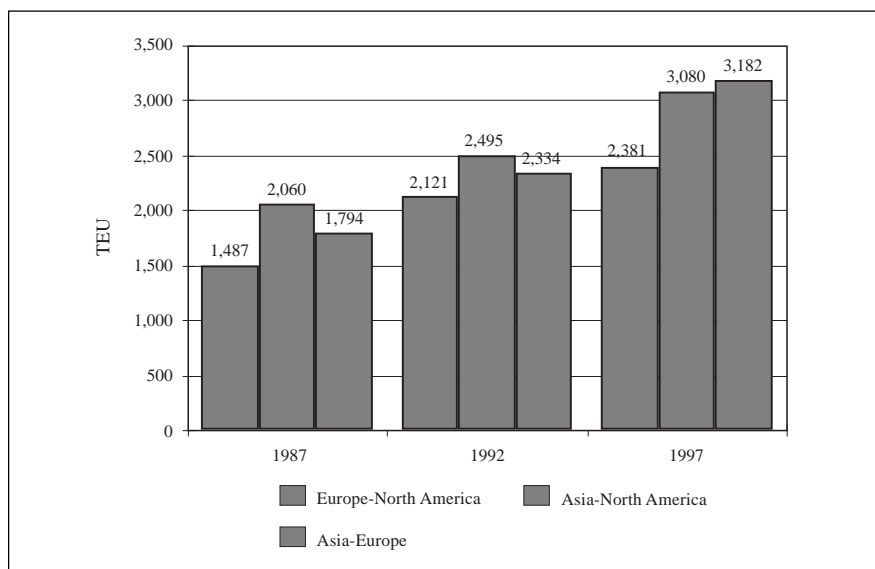
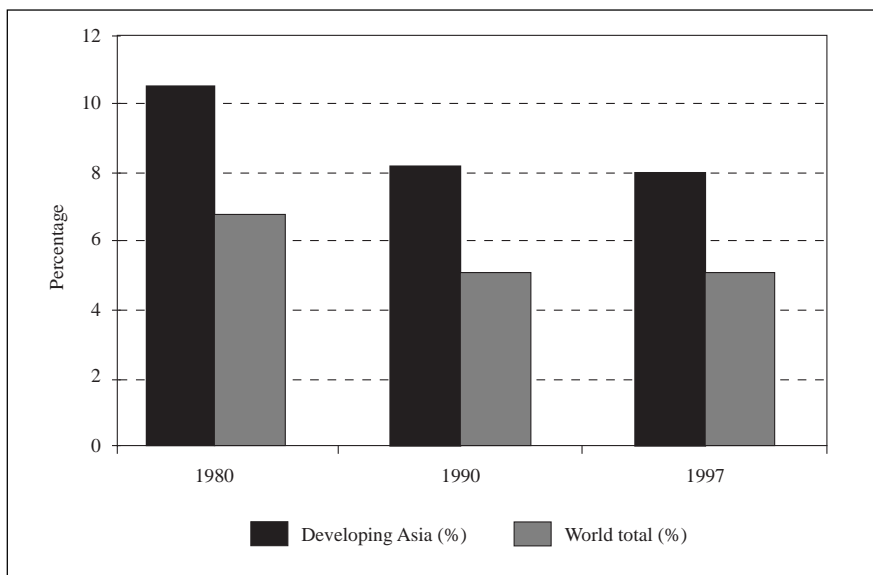


Figure 5 provides estimates of maritime freight payments as a percentage of import values for the world and for developing Asian countries. As a result of increasingly efficient shipping services, the tariff rate (percentage of freight rate payments in CIF value of imports) in developing Asia declined from 10.41 per cent in 1980 to 8.19 per cent in 1990.<sup>66</sup> However, the 1997 tariff rate, which is the current rate, is still high when compared to the average world freight rate of 5.2 per cent. This may partly reflect the difference in the value of goods traded, particularly with higher value commodities and finished manufactures representing a larger percentage of trade between developed countries. But it would also appear to indicate inadequate regional infrastructure facilities, distribution and management systems, all of which add to freight cost. The impact of more influential and organized shipping strategies of shippers from developed countries,

<sup>66</sup> Among major importing countries in this group, the Republic of Korea and Singapore paid relatively low levels of freight costs at 5.22 and 5.58 per cent of import value respectively. Malaysia and Thailand paid costs as high as 9.36 and 9.60 per cent respectively. India and Indonesia paid high freight costs of 10.32 and 10.55 per cent respectively, and estimates for the Pacific island countries are higher freight rates on the order of 12.36 per cent (UNCTAD, 1999b).

**Figure 5. Freight rate as percentage of import values**



*Source:* UNCTAD Review of Maritime Transport, 1999.

many of whom control massive cargo volumes, may have also contributed downward pressures on freight rates through their negotiations with shipowners or liner operators and conferences.

## **2. Concentration and competition in maritime services**

Two opposing forces are moulding the evolving structure of Asian container shipping services. On the one hand, economies of scale are encouraging the use of larger vessels, which call only at hub ports and a limited number of other ports that can offer significant cargo concentrations. On the other hand, increased container volumes at secondary ports, combined with the ability of global shipping lines to offer multiple string services on key routes, is selectively encouraging direct port calls where the efficiency of the ports permits.

Globalization of production has led to the creation of demand for competitive global shipping services. Shippers have become increasingly conscious of the benefits from logistics management on a global scale.

Shippers now require a service that would ensure the right product in the right place at the right time and at the right price, with one operator assuming responsibility for the delivery of goods from door-to-door. Shippers have thus begun to build partnerships with reliable carriers who can provide global transport networks. Leading carriers have had no option but to develop operating philosophies that would enable them to cope with the intense competition and expand their service networks to meet these changing needs of the market place and offer fixed day/weekly services at a global level. The necessity to consolidate the number of containers required to fill large container ships and provide the frequency of service required by shippers has led liner shipping companies to form alliances and mergers which have increased the concentration of control in the liner container sector.

While such vertical and horizontal cooperation may bring benefits in meeting consumer needs, they may also have anti-competitive effects in the provision of shipping services, whose regulation lies outside the jurisdiction of individual countries. Consequently, there is a need, perhaps within the context of the WTO working group on interaction between trade and competition policy, to monitor developments in the international liner shipping market.

The principal change in operating philosophies for the liner sector relates to the emergence and consolidation of the mainline-feeder system. The fleets of China, Republic of Korea, Singapore, Taiwan Province of China and to a lesser extent Malaysia participate in the mainline operations. However, most developing country fleets cannot match the economies of scale or investments of the major alliances. Inability to invest in capital intensive container shipping or to provide extensive market networks required to fill large container ships has meant that several developing countries' shipping lines face a reduced presence or volume share in all but niche markets.

### **3. The maritime-land transport interface**

The concentration and competition witnessed in maritime shipping is, to some extent, being reflected in the ports sector. The massive investments being made by international shipping operators in new larger container ships and the tight scheduling of services demands consistently high levels of port productivity and substantial concentrations of traffic. In turn, this requires

major new investment in infrastructure not only at the hub and major ports but also at smaller ports, which provide the only linkage for many developing economies to feeders with the trunk line shipping services. For many regional ports and related agencies, considerable improvements in logistics and management capabilities are essential if they are to meet the expectations and demands of shippers. Most countries in the region do not have adequate resources to address these issues. The lack of modern port facilities and cargo handling equipment, lengthy and complicated procedures, inadequate integration of electronic processing capabilities have all led to extended dwell-time of cargoes,<sup>67</sup> resulting in increased costs and reduced competitiveness in international trade markets. This frustrates further effective participation in the multilateral trading system.

One approach taken by many countries, which appears to have been successful in overcoming some of these problems, has been to involve the private sector in the management and ownership of port facilities. Several international terminal operators, including Hutchinson Port Holdings (Hong Kong, China), International Container Services, Inc. (the Philippines), P&O Ports (Australia) and PSA Corp. (Singapore) as well as international shipping lines and domestic private sector companies, have already invested and started operating regional terminals in Australia; Brunei Darussalam; China; Hong Kong, China; India; Indonesia; Malaysia; Myanmar; New Zealand; Pakistan; the Philippines; the Republic of Korea; Singapore; Sri Lanka and Thailand. However, despite the declared political commitment of many countries in the region, including some of the countries and areas mentioned, most have so far failed to increase the level of uptake for projects by the private sector. There is thus a need for these countries to review and address outstanding issues.

#### **4. Developments in land transport**

A striking feature of transport systems in countries of Asia and the Pacific is the dominant focus of the network to serve economic and industrial development in the vicinity of international seaports. While this has led to

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<sup>67</sup> While international container ships can discharge and load in a matter of hours, it is common for cargo to remain in some regional ports for two weeks.



considerable growth in these areas and migration from rural areas to coastal cities, the vast majority of the population in these countries still lives in rural areas. If these people are to fully participate in the globalization process, and if problems associated with the development of megacities are to be avoided, there is a need to rehabilitate and develop transport links from inland origins to seaports.

The most significant developments in the land transport sector in the ESCAP-member countries and areas are the Asian Highway and the Trans-Asian Railway (TAR), which together provide a web of domestic transport networks across the region. The Asian Highway network extends over 90,000 km of roads spanning 25 countries. The network is composed of five international routes (40,000 km) and 37 subregional routes (50,000 km). The formulation of the Asian Highway involved the identification and survey of major roads, road classifications, and design standards. It required the consent of national governments to first identify and then agree that the identified roads would be international highways linked to road networks in other countries.

The TAR network cuts across the entire Asian continent and offers a land transport alternative to connect Asian markets with markets of the Europe and the EU. In addition, the TAR network offers connections allowing intraregional and interregional movements within the various subregional and/or economic groupings on the Asian continent (for example, the South Asian subcontinent, the region comprised mostly ECO-member countries and Central Asia).

Furthermore, the TAR network also connects landlocked countries to the nearest ports. Thus, countries of Central Asia have access to ports in the Islamic Republic of Iran, Pakistan and Turkey, while Mongolia can have access to ports in China. The Asian Highway plays a similar vital economic role for such countries as Bhutan, Lao People's Democratic Republic or Nepal where rail transport is not extensively developed. The Asian Highway network gives Bhutan and Nepal access to ports in Bangladesh and India, while the Lao People's Democratic Republic can have access to ports in Thailand, Viet Nam and China and possibly, Myanmar at a later stage.

In addition to ESCAP, a number of organizations and bodies are making efforts to develop Europe to Asia land bridges. The International Union of Railways has set up a number of working groups headed by the railways concerned to develop land bridges between, Japan/Republic of Korea – China – Central Asia – Europe; China – Middle East – Europe, South Asia – Central Asia (via Middle East), among others. At the same time, a Special Working Group has been established with a view to developing efficient container movements along the route of China-Kazakhstan-Russian Federation-Belarus-Poland-Germany. The Coordination Council for the Trans-Siberian Railway is developing similar efforts for the route connecting Russian Federation ports on the Pacific to Europe.

### **5. Bottlenecks in the land transport system**

Although the TAR is already defined, operationalization over the entire system still needs to take place. Containerization has largely overcome the problems caused by break of gauge, although some missing links in the network still remain. Within the Asian Highway network, less well-developed sections still constrain transport movement. In the coming years operationalization and integration of the entire domestic and international transport network will be a priority if it is to effectively compliment and extend maritime shipping.

The development of domestic and inter-country land transport linkages provides the opportunity for countries to promote their integration into the multilateral trading system through the development of economic corridors and growth poles which are located away from the traditional coastal cities. However, compared with the enormous potential, there is relatively little cross border road and rail transport in Asia. There are several reasons for this, including lack of infrastructure, uncoordinated planning, bureaucratic procedures and lack of familiarity with integrated logistics practices. At the domestic level there are delays, imbalances in transport capacity and a lack of cooperation/coordination between the transport modes. This prevents shippers from exploring the benefits of intermodal systems, which focus on just-in-time delivery, competitive pricing and the smooth, efficient flow of transport.

Improvement of the transport infrastructure and provision of services is a necessary, but very evidently, not sufficient condition for the smooth movement of vehicles and their cargoes. There is now a fast-growing awareness of the equally important need for facilitation measures to minimize unnecessary delays and increase efficiency at transfer points, border crossings and ports. Within this process, formalization of the Asian Highway and TAR networks would be an important contribution to ensure unhindered access to the routes and promote coordinated development.

## **6. Through transport**

It is difficult to estimate through transport costs of goods from origin to destination due to the variability of land transport costs. However, box 8 provides an example of the cost contribution of various modes of transport to the international movement of goods between Lao People's Democratic Republic to Europe at the port of Rotterdam).

This illustration clearly demonstrates the comparative disadvantage faced by shippers in a landlocked country and the obstacles they face with respect to price and time competitiveness in the international market. The identification of the contributing costs of the various modes of transport and other contributing factors, as illustrated in box 8, could be applied by other countries to identify critical areas to be addressed in the transport process.

## **D. Issues and challenges in the transport sector**

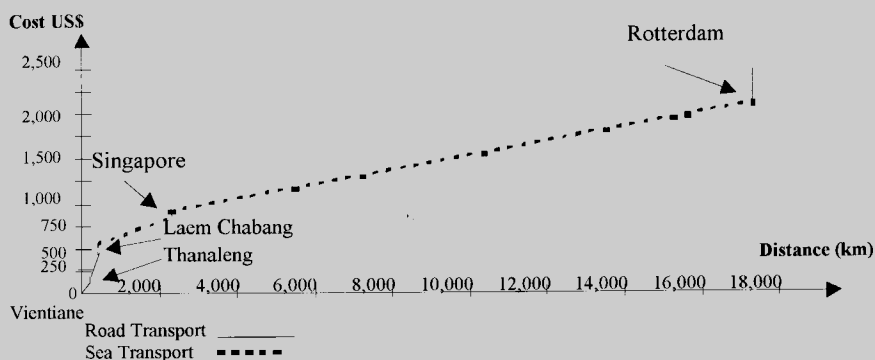
In order that the transport sector can fulfil its role of supporting integration of Asian and Pacific economies into the multilateral trading system, several urgent issues need to be addressed:

- (1) Removal of non-physical barriers along sea-cum-land routes including at border crossings;
- (2) Improving logistics capabilities and multimodal transport;
- (3) Undertaking preparatory reforms to set the stage for the liberalization of trade in transport services; and
- (4) Upgrading human resource capabilities and institutional capacities.

### Box 8. Transport costs and distance for movement of one loaded twenty-foot equivalent container unit from Lao People's Democratic Republic to Rotterdam, the Netherlands

The transport costs in this example are based on offers that were obtained from transport service providers, that operate on export routes of Lao People's Democratic Republic. Prices quoted relate to the shipment of one twenty-foot container at a Freight All Kind (FAK) rate. It is also assumed that the shipment is leaving Vientiane, the capital of Lao People's Democratic Republic on a Monday (day 1).

For containers that are transported by road through Thailand and loaded on board ship at Laem Chabang port, (the lowest cost route passing through Thailand) the total price is US\$ 2,435 per TEU, and the total transit time to Rotterdam is 31 Days.



Road transport represents 17 per cent of the total transport cost, while road transport distance represents only 4 per cent of the total journey. The port charges at Laem Chabang are 12 per cent of the total inland transport cost from Vientiane. The transit charge, including customs and document charges, at Thanaleng/Nongkhai, the transit locations on the border represent about 17 per cent of the total inland transport cost.

*Source:* PhD Thesis being prepared by Mr Ruth Banomyong, University of Wales, Cardiff College.

## **1. Improving transport infrastructure and facilities**

The issue that needs to be addressed is the ways in which inadequate transport infrastructure capacity constrains the flow of goods and vehicles, increases delays and costs and inhibits the integration of developing economies into the multilateral trading system.

The theme topic study for the fiftieth session of ESCAP provided estimates of the financial resource requirements for infrastructure development in the developing countries of the region (ESCAP, 1994). According to these estimates, lending by World Bank and the Asian Development Bank amounted to less than 10 per cent of requirements. Given other competing demands, it was found that government funds were grossly inadequate to fill the gap.

In order to overcome this constraint, two other ways of addressing the issue of providing additional infrastructure capacity were proposed: (a) using existing assets more efficiently, and (b) encouraging a greater involvement of the private sector. Experience has already shown that the private sector can successfully finance, develop, manage and operate infrastructure that would traditionally have been within the domain of the public sector. However, countries in the region which have been most successful in establishing public-private sector partnerships to develop infrastructure have been the countries where considerable ground work had been undertaken prior to initiating the privatization process. This included clear identification of objectives, legislative and institutional changes, selection and prioritizing specific project opportunities, parallel public sector investment in supporting infrastructure, upgrading of existing in-house management, demonstration of political commitment and importantly, support of the population at large for change as expressed by public opinion. Where an existing operating entity has been privatized, the preparatory work has also sometimes involved reducing the number of people working in the sector prior to the privatization process and not as a result of it.

Although there is a mix views on private sector involvement in infrastructure development, regional examples are witness to the significant progress that would either not have been achieved without the private sector, or alternatively, could have been achieved only at the expense of other

competing investments. In addition to the projects for developing new infrastructure, governments have encouraged the private sector to take over the operation of existing public sector infrastructure and facilities. The aim has been to increase capacity through efficiency gains while ensuring a future stream of private sector investment for expansion and modernization (ESCAP, 1999a).

With few exceptions, even in countries that have succeeded in attracting private sector funding, the progress has been much slower than originally anticipated. In hindsight, this is perhaps not surprising, considering the scale and complexity of the projects and major changes in philosophy that governments are required to institutionalize in the privatization process. Similarly, the learning curve for the private sector when implementing commercial infrastructure projects has been steep in terms of understanding the pressure that governments and the public sector have to accommodate in their national decision-making processes.

In addition, it has now become clear that there is a substantial ongoing role for government in safeguarding the interests of all stakeholders, including investors, users and labour.

The challenges related to a number of issues that need to be addressed by developing countries if they are to encourage infrastructure development and operations by the private sector as an approach to promoting integration into the multilateral trading system. One major obstacle identified by the private sector as inhibiting their involvement in regional projects relates to the need for an appropriate legal framework that would encompass:

- ❑ Ownership and the establishment of legal ownership which may include retained domestic or government ownership if foreign investors are involved;
- ❑ Corporate law and a review of the definition of juristic persons to encompass foreign-owned companies within the national law and to specify the formation of such companies;
- ❑ Arbitration and the role of national courts of law in arbitration arrangements;

- ❑ Status of foreigners, including the provision of work and stay permits for employees and representatives of overseas private sector investors;
- ❑ Repatriation of funds and the ability to convert profits and cash flows into hard currencies and their transfer out of the country;
- ❑ Accounting practices, including adoption of international accounting practices, for example, in the area of depreciation which can have a significant effect on project returns;
- ❑ Pricing to provide the private sector with adequate freedom and flexibility in setting prices; and
- ❑ Taxation by setting relevant taxes (corporate, value-added and personal tax levels), including details of tax holidays at internationally competitive levels.

In addition to the need for an appropriate legal framework, considerations of equitable risk sharing between public sector project sponsors and the private sector require careful consideration if projects are to be attractive to potential investors.

A number of countries have already implemented measures to address some of these issues in ways which have thus far found greatest success in the ports sector (ESCAP, 1999b). However, the Asian economic crisis has combined with issues related to governance and transparency and may have frustrated many efforts to attract private sector participation.

A number of actions can be taken. Private sector participation may only be a partial solution to problems in the infrastructure sector. This may also involve, for example, introducing funds external to the government budget, changes to improve efficiency and transferring technology and management. However, beyond project viability, a prerequisite to such participation is a favourable investment climate composed of many elements. When inviting private sector participation, governments would be required to address those elements and make clear what type of regulatory body would oversee the ongoing performance of the project.

## **2. Removal of non-physical barriers along sea-cum-land routes including at border crossings**

In this case, the issue involves increasing the efficiency of existing infrastructure and equipment through facilitation measures, because this will continue to be a critical issue if transport is to support the integration of economies into the multilateral trading system.

The provision of adequate transport facilities is one of the necessary conditions for supporting a country's trade. Of equal importance, however, is the requirement that goods and transport vehicles are able to utilize the facilities efficiently in order to meet the demands of price-conscious and time-sensitive markets.

In the case of landlocked regions and countries, transport equipment and cargoes may have to cross several national boundaries to reach an ocean port. Facilitating the movement of transport through international transit agreements thus forms an important aspect in the development and integration of transport in the region. In order to facilitate the smooth movement of goods and the development of intraregional trade, the international community has worked for over 50 years to put a series of international instruments relating to land transport in place. These conventions have been ratified and are widely used in Europe to facilitate efficient land transport movement between countries. Since these agreements have their origin in Europe, there is a tendency to believe that they may not be suitable for adoption by countries in Asia and the Pacific. However, a close examination would reveal that this is not the case as most of the conventions have been developed within the framework of the United Nations for wider application.

Transport facilitation and transit agreements have been a subject considered by some subregional groupings within the region.<sup>68</sup> These agreements could make a significant contribution to the process of removing non-physical barriers to the movement of vehicles and goods across borders within the subregional groupings. There is, however, a danger that inconsistencies in wording and definitions between the individual agreements may cause confusion and conflict in interpretation when transport is provided

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<sup>68</sup> ASEAN Framework Agreement on the Facilitation of Goods in Transit, 16 December 1998, Hanoi, Viet Nam and the ASEAN Framework Agreement on the Facilitation of Inter-state Transport.



between countries of adjacent groupings. This problem also arises in cases where the same countries are signatories to two different agreements through their membership in overlapping groupings, for example, in ASEAN and the Greater Mekong subregion (Yunnan Province of China, Cambodia, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam).

The challenge is to smooth the flow of transport and goods over intermodal transfer points and across borders through the implementation facilitation measures.

The possibility of seamless transport movement, similar to that between member countries of the EU is still only a vision in the Asian region. Until all countries are in a position to accede to the international facilitation conventions, bottlenecks at border crossings will remain and add to transport costs and reduce the competitiveness of delivered products in international markets. Unfortunately, many governments have not been able to quantify the costs that can be attributed to the various elements of the transport chain or the losses due to unnecessary delays on each of the main corridors. Such an approach would provide a focus on the most cost-effective action for smoothing the flow of transport and goods.

An intermediate alternative prior to ratification and implementation of the international conventions can be considered. A strategy for groups of neighbouring countries could be to enter into specific agreements and adopt uniform procedures among the members. Any regional or subregional transit transport facilitation agreement (TTFA) could provide workable solutions only as long as transport operations are confined to countries that are members of such agreements.

Among actions to be taken are corridor studies at both the domestic and international level to identify physical and non-physical barriers and suggest remedies. This is an essential step in smoothing the flow of transport and goods. Countries that have not already done so may want to consider acceding to the IMO Maritime Facilitation Convention (the FAL Convention, 1995 as amended) and the seven land transport conventions identified in ESCAP resolution 48/11 on "Road and rail transport modes in relation to facilitation measures". In addition to these conventions, the Committee on Transport, Communications, Tourism and Infrastructure Development at its second session held in Bangkok from 24 to 26 November 1999 recommended

that further conventions dealing with work of vehicle crews, the temporary importation of private vehicles, the transport of perishable goods and dangerous goods, and conventions related to railways be considered for inclusion in an expanded version of resolution 48/11.

### **3. Improving logistics capabilities and multimodal transport**

The issue concerning logistics and multimodal transport focuses on the availability of efficient, reliable and cost effective door-to-door transport services as an essential factor in today's multilateral trading system. A comprehensive, integrated and ideally global approach to the planning and delivery of transport services is required.

Containerization is a technological advance, which can increase the efficiency of the transport sector. However, in many countries the full intermodal potential of containerization has not been incorporated into the logistics of international production and distribution. In the same way that transport infrastructure and services continue to undergo a technology-driven revolution, the management of the transport sector is confronting a parallel revolution driven by user demands for improved, integrated services and the opportunities provided by newly-developing information technology.

The expansion of geographical markets has forced manufacturers to focus on integrated production and transport logistic strategies in order to reduce costs and, at the same time, provide higher service standards. The need to control transport costs has become as important as the need to keep down other production costs. The emergence of reliable, competitive and time definite door-to-door freight forwarding and multimodal transport services can contribute to and foster new trading opportunities as well as increase competitiveness.

Freight forwarding and multimodal transport take advantage of developments in container-based transport logistics to offer better and more cost-effective services for shippers and consignees. For example, new and more competitive sea-rail-road multimodal alternatives to traditional unimodal sea options, and the level of efficiency of both conventional and block-train services have enabled ocean carriers to achieve better utilization of their fleets.

By managing these potential improvements within an integrated transport approach, synergy can be created and result in sometimes unexpected trading opportunities for both local traders and transport service providers to the benefit of the national economy. Such a coherent integrated transport approach can bring short-term benefits to local traders and transport operators, as well as long-term structural changes in transporting the country's international trade.

Unfortunately, many developing countries in the region have outdated legislation that fails to encourage or, in some cases, even recognize freight forwarders or multimodal transport operators and the important role they can play in the transport process. Leading multinational transport operators are making large investments in technically advanced; streamlined and more accessible communications systems to increase their market share and reduce the challenge from smaller operators. The exploitation of information technology has increased their market power and in the not too distant future will make it very difficult for transport services providers from developing economies to compete unless they can offer comparable services.

The challenges, therefore, is for developing economies to integrate into the multilateral trading system and effectively participate in the provision of global transport and logistics services. Partnership may be the best option available when confronted with strong global competition and the need for a global network.

Transport and distribution-related activities, which were originally considered subordinate to production, are now being integrated in a process that starts with the collection of raw materials and ends with distribution and delivery of the manufactured product to the final consumer anywhere in the world.

For the majority of countries in Asia and the Pacific there is an urgent need to update legislation in order to ensure appropriate recognition of freight forwarders, multimodal transport operators and the role of e-commerce within the transport sector. In the case of multimodal transport, the ASEAN Framework Agreement on Multimodal Transport,<sup>69</sup> as the basis for the

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<sup>69</sup> The First Official Draft was developed at the Fifth Meeting of the ASEAN Working Group on the Development of Multimodal Transport and Trade Facilitation, 12-14 March 1998, Phuket, Thailand.

harmonized upgrading of legislation in each of the ASEAN-member countries provides a useful and constructive starting point for other subregions.

With respect to e-commerce and the relatively small share that developing economies have of the world's transactions, there is a need to review the way limited access is constrained by lack of infrastructure, especially Internet connections and the relatively high user charges for telephones. In the majority of countries there is also a need to review existing legislation to ensure that e-commerce can play its full role in the transport process.

Action to be taken can start with the idea that freight forwarders and multimodal transport operators are the architects of transport, as has been described in Europe. In order for them to fulfil their role in the Asian region and contribute to streamlining the transport process, governments need to ensure that facilitating legislation is in place to enable them to fulfil their functions efficiently and to provide the platform for effective partnership with international players. Similarly, urgent review of potential capacities and legislative hurdles needs to be undertaken for countries to enable them to explore the benefits of e-commerce.

#### **4. Preparatory work for the liberalization of trade in transport services**

Transport services have traditionally been protected from foreign competition. Liberalization in the maritime sector has already resulted in developing economies having to face intense competition in the carriage of their country's foreign trade, however. Anticipated liberalization of road and rail services as well as postal services (a potential transport competitor and service user) will expose them more to competition from foreign operators offering fast, door-to-door services.

Maritime transport services have a long history of protectionism and in the past countries have adopted direct and indirect measures to establish, develop and sustain their national shipping industry. With some exceptions, the most obvious and directly protectionist measures have been adopted by the developing countries.

The drafting of the United Nations Liner Code in 1974 appears to have encouraged interventionist policies in developing countries. Ironically, the coming into force of the United Nations Liner Code in 1983 saw a

marked change of climate towards protectionism. The developed countries of Western Europe whose ratification brought the Convention into force expressed clear reservations or made declarations that the code should only apply to liner conferences and not to all liner cargo. They also stated that measures taken by developing countries to restrain access to cargo, and which were not in conformity with the convention, would give rise to retaliatory action.

In parallel with the international diplomatic pressure on developing countries to abandon restrictive regulations, several domestic factors within developing countries have accelerated the pace of shipping liberalization. There has been a recognition that:

- ❑ Cargo reservation schemes were restricting the shipping opportunities available to exporters and importers and hampering the expansion of exports.
- ❑ Relatively high freight rates charged by national shipping lines operating in a protected market were adding to the cost of exports and imports.
- ❑ National lines were not being subject to forces of outside competition and technological change and thus gradually became operationally inefficient.
- ❑ In many cases government-owned national shipping lines were running at a loss and required subsidies instead of being a revenue earner for the state.

As countries in the region move into the twenty-first century, there will be a renewed commitment to the liberalization of maritime services. Commitments on the presence of natural persons (mode 4 of GATS) is one area which could have a direct benefit to developing countries that supply maritime manpower to the world fleets and have the potential to provide human resources to the shore-based maritime industries (ESCAP, 1999c). Projections of a global shortage of seafarers to work on the world's merchant fleet are a matter of grave concern. Insufficient maritime manpower has already seriously affected developed countries outside the Asian and Pacific region. It is now also an issue for some of the countries in the region,

including Japan, the Republic of Korea and Singapore. Developing countries in the region are the largest providers of seafarers to the world's fleet, with the top five ranked in order of importance being the Philippines, Indonesia, Turkey, China and India. In the Pacific island subregion, Kiribati is the largest provider of seafarers to the international fleets. However, even in Tuvalu with a population of only 10,000, remittances from seafarers make an important contribution to the economy.

In the port sector, extension of GATS negotiations could result in the further dismantling of market access restrictions in cargo handling and terminal operations. It is likely to propel governments further down the path of privatization for all port-related services. The extension of GATS coverage to multimodal transport and the onward intermodal transport and delivery of international goods is a matter to be resolved in the years to come. However, governments concerned that progressive liberalization could lead to the entire inland transport sector being exposed to GATS coverage may resist this extension.

The challenges for developing economies are to be adequately prepared for the negotiations and liberalization of trade in transport services. Liberalization of transport services and the intense competition among maritime service providers have resulted in exporters and importers enjoying unprecedented low freight rates for much of the past decade. Market forces alone, however, cannot ensure the long-term stability of freight rates or the scope of the transport services required by exporters seeking new markets. An increasing trend towards concentration of market power in the maritime transport sector and the recent upward trend of freight rates on some routes along with the imposition of special charges by shipping lines have alerted the trade and transport industry about the need to monitor the behaviour of national and foreign transport providers.

In this context, consideration should also be given to whether any anti-competitive behaviour or abuse of market power could be effectively dealt with by anti-trust or competition policy at a national level. Two schools of thought have emerged on this matter. One view is that competition is within the purview of domestic policy and should be dealt with by national governments and not multilateral organizations. Cross-border disputes could be dealt with bilaterally or under bilateral cooperation agreements. These

bilateral agreements could take the form of those concluded between the United States and Canada and the voluntary bilateral cooperative action of the member countries of the Organization of Economic Cooperation for Development (UNCTAD, 1997b). A second view is that a multilateral agreement on minimum competition standards should be negotiated. In the case of WTO, this could be achieved by strengthening GATS article IX or by including competition rules in each sectoral annex of GATS (UNCTAD, 1999c).

Action to be taken is premised on the reluctance of major maritime nations to make commitments in the area of maritime transport services. This demonstrates the need for careful consideration and reciprocity in the negotiation process and in the final outcome of the GATS negotiations. To optimize the opportunities that will come from liberalization, developing countries will need to prepare and may require assistance in bringing together not only the views of government policy makers but industry participants as well.

## **5. The need to upgrade human resource capabilities**

The issue that needs to be addressed is how to optimize the new opportunities brought about by liberalization of the global market place. Developing countries in Asia and the Pacific will need to upgrade their skill base and develop institutional capacities in order to take advantage of new opportunities.

Successful development of infrastructure facilities through private sector funding requires that those involved in national planning and implementation are in a position to bring about the change in ideology and deal with the complex range of issues to be resolved. It is unrealistic to expect that senior officials in the public sector and private sector of developing economies in the region would automatically develop these skills.

The need to improve the efficiency of the existing infrastructure and new infrastructure is well documented. Such improved efficiency can only be brought about through skills development, however. To achieve a high degree of operational efficiency, workers at all levels need to be aware of developments taking place outside national boundaries, because this would

enable them to understand the meaning of being internationally competitive and what is their contribution to the development process. In order to motivate the operational staff and meet new service demands, all levels of supervisory staff need training in basic management skills and services marketing.

Countries and areas in the region are at different stages of development in the provision of multimodal transport and logistics services. In some countries shippers only have access to basic freight forwarding services while in other countries national and foreign operators provide sophisticated logistics services to international standard. The development of multimodal and logistics services requires knowledge and information at both the policy and operational level.

The challenge is to enable developing countries in the region to have access to a sustainable and cost-effective programme of training for the transport sector. Effective human resources development strategies and programmes to upgrade skills need to be fully integrated into the whole infrastructure development process. The planning, design, operation and maintenance of infrastructure facilities all rely equally on the appropriate skills being available. Investment in human resources development is recognized as one of the most fundamental and cost-effective factors contributing to economic growth. Countries could consider concentrating resources on improving educational and training opportunities to enhance capability in the infrastructure sector and provide opportunities for mobility of labour, thereby harnessing the strength of often-abundant human resources.

Action to be taken should be based on the fact that the region has many national institutions active in education, training, research and policy formulation in the area of transport infrastructure, facilities and services. International agencies have also contributed to skills development. In spite of these activities, many of the countries in the region still lack access to a sustainable and affordable programme of human resources development in the transport sector. To help overcome these critical problems collaboration among training and education institutions, with the assistance of international agencies, should be further promoted.



## **E. Conclusions and recommendations**

In the transport sector, the changing nature of cargo handling, in particular containerization and technological advances in shipbuilding, has led to several unique developments such as the hub port, feeder services, global carriers and multimodal transport. These developments have all facilitated the integration of Asian and Pacific economies into the multilateral trading system. However, international sea routes and ports alone cannot facilitate the development of the hinterlands, which provides a great potential for future growth in most developing countries. Growth will only be achieved when adequate road and rail transport infrastructure is developed, the process of intermodal (sea-land) transport is fully integrated and institutional bottlenecks are removed.

Under the prevailing circumstances where significant global developments are shaping the transport sector, a number of issues need to be addressed urgently if the developing economies are to become further integrated into the multilateral trading system. The following recommendations can help address the issues and resolve some of the problems faced by ESCAP-member countries and areas:

- ❑ integrating land and sea transportation to provide the potential to open-up wider hinterlands and more effectively integrate economies into the multilateral trading system.
- ❑ establishing a favourable investment climate to encourage private sector participation in transport financing and operation through the provision of an appropriate legal framework, the implementation of trade facilitation measures, defining equitable risk sharing strategies and clarifying the role of any regulatory body.
- ❑ undertaking corridor studies, at both the domestic and international level, to identify physical and non-physical barriers and suggest remedies as an essential step in smoothing the flow of transport and goods.
- ❑ formalizing the Asian Highway and Trans-Asian Railway to ensure unhindered access and operationalization of major land bridges.

- ❑ acceding to the IMO Maritime Facilitation Convention (the FAL Convention 1995 as amended), the land transport conventions contained in ESCAP resolution 48/11 and other conventions of direct relevance.
- ❑ enacting facilitating legislation, which will recognize and encourage freight forwarders, multimodal transport operators and the use of e-commerce.
- ❑ encouraging the development of logistics services and supply chain management for the benefit of trade.
- ❑ optimizing opportunities that will come from liberalization by involving government policy makers and industry participants in establishing negotiating positions.