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Chapter VII

REVIEW OF REGIONAL DEVELOPMENTS: EAST ASIA

This chapter focuses on developments in developing and socialist countries of East Asia, in particular global and intraregional trades, transport network development and performance and transport problems of landlocked LDCs

A. SHIPPING MARKETS

Economic growth and trends in imports and exports

205. The economic performance of countries in East Asia during 2000 showed that the recovery from the financial crisis has endured. As shown in table 44 the growth of output for all countries exceeded that of the previous year. The recovery was based on greater export performance helped by strong demand from the United States but also by solid domestic demand and investment in most of these countries.

Table 44

Growth of output of East Asian countries (percentage change)

Countries and groups of countries	Growth rate		
	1998	1999	2000
Republic of Korea	-6.7	10.7	9.3
China	7.8	7.1	8.0
Hong Kong, China	-5.1	3.1	10.4
Taiwan Province of China	4.7	5.7	6.0
Singapore	0.4	5.4	10.1
ASEAN 4	-9.4	2.8	5.3
<i>of which:</i>			
- Indonesia	-13.0	0.3	5.2
- Malaysia	-7.4	5.4	8.7
- Philippines	-0.6	3.2	3.5
- Thailand	-10.2	4.2	4.2
Japan	-2.5	0.2	1.3
Developing Asia and China	1.1	4.9	6.6
South Asia ^a	5.6	5.7	5.5
West Asia ^b	3.3	-0.5	4.3

Source: *Trade and Development Reports, 2001*. UNCTAD secretariat calculations, based on data in 1995 dollars. Percentages for 2000 are estimates.

^a Bangladesh, India, Nepal, Pakistan and Sri Lanka.

^b Oil exporting countries.

206. East Asian trade experienced an unprecedented boom in 2000 as demand in America continued to grow. Furniture from China, kitchen appliances from the Republic of Korea, motor parts from Japan and computers from Thailand are examples of export cargoes that contributed to another bumper year for ocean carriers. Recovery of South-East Asian developing countries was underway in 1999 and gathered speed during 2000. Of the other two trading regions, China and North East Asia (Japan and Republic of Korea), the former maintained its high export rate, and optimistic expectations for the future due to the forthcoming accession to WTO. Japan rebounded during the first half of 2000, but prospects became less encouraging by the end of the year. Consolidation of the Republic of Korea's recovery was pending the completion of the restructuring of national conglomerates (chaebols).

207. The growth of volume of imports and exports for selected countries of East Africa is given in table 45. The highest growth of imports was in Indonesia, followed by China and Malaysia while the highest growth of exports were in China, Indonesia and Thailand. These results confirm the recovery of South East Asia and the sustainability of the trade performance in China. The performance in North East Asia (Japan and Republic of Korea) was also remarkable, reaching double digits on imports.

Table 45

Growth in the volume of merchandise trade by selected countries, 1998–2000
(annual percentage change)

Exports			Country	Imports		
1998	1999	2000		1998	1999	2000
-1.3	2.1	9.2	Japan	-5.3	9.5	10.9
16.9	12.0	18.7	Republic of Korea	-21.0	26.1	18.5
4.5	9.6	28.3	China	2.5	15.2	33.1
-4.3	3.6	17.1	Hong Kong, China	-7.1	0.2	18.1
1.1	4.9	12.4	Taiwan Province of China	4.1	1.4	11.2
-0.3	5.4	16.8	Singapore	-12.9	9.5	14.8
17.2	-1.4	24.0	Indonesia	-30.8	-11.3	37.1
3.9	19.9	19.5	Malaysia	-21.2	13.5	24.6
24.8	24.2	13.8	Philippines	-13.9	3.3	2.0
7.8	12.0	21.0	Thailand	-27.2	23.6	14.9

Source: WTO Merchandise Section, Statistics Division, May 2001.

208. Total fleets of East Asian countries (Japan, Democratic People's Republic of Korea and the Republic of Korea in North East Asia; China, Hong Kong, China and Taiwan Province of China; and the 10 ASEAN countries), including vessels beneficially owned in open registries, reached 298.9 million dwt at the beginning of 2001. This was 37.0 per cent of the total world fleet. The average age of the fleet owned by developing countries of East Asia is 12.22 years which is younger than the average age of the world fleet (13.9 years) (see table 46). With the exception of the category of general cargo vessels, the average ages of the fleets of these countries are younger than the world average.

Table 46

**Average distribution of the merchant fleet of countries in East Asia by types of vessel,
as at 1 January 2001**
(percentage of total dwt)

Country grouping	Types of vessel	0–4 years	5–9 years	10–14 years	15–19 years	20 years and over	Average age (years) 2001 ^a
World total	All ships	18.8	18.4	12.7	16.3	33.8	13.9
	Tankers	16.6	23.5	12.1	8.8	39.0	14.1
	Bulk carriers	20.4	16.7	14.3	23.9	24.7	13.2
	General cargo	11.1	10.0	10.4	19.8	48.7	17.0
	Container ships	33.4	22.9	12.2	11.0	20.5	10.4
	All others	18.1	12.7	12.4	16.1	40.7	15.0
Developing countries in East Asia	All ships	24.8	20.9	13.8	14.0	26.5	12.2
	Tankers	23.0	22.4	19.2	5.6	29.8	12.3
	Bulk carriers	30.1	24.5	14.1	15.7	15.6	10.3
	General cargo	6.1	7.8	8.5	21.4	56.3	18.5
	Container ships	37.3	24.8	7.2	10.9	19.9	9.9
	All others	20.3	13.3	10.4	23.7	32.3	14.2

Source: UNCTAD secretariat on the basis of data supplied by Lloyd's Maritime Information Services (London).

^a To calculate the average age, it has been assumed that the ages of vessels are distributed evenly between the lower and the upper limit of each age group. For the 20-years-and-over age group, the mid-point has been assumed to be 23.5 years.

Tanker trades

209. Developments in tanker trades are influenced by the expansion of refineries across Asia. The steady commissioning of major refineries in the region continued: in 1999 India expanded its refining capacity by 19.2 per cent. The refining capacity in the region reached 19.9 million barrels per day (mbpd) in 1999, about 24.3 per cent of world capacity. This is 2.8 mbpd more than in 1995 when refining capacity of the region was 22.2 per cent of that of the world. In terms of countrywide refining capacity the two major countries are Japan and China with more than 5.0 mbpd of capacity each.

210. Long haul demand for VLCCs and Suezmax tankers could increase substantially in the coming years as Asian refineries import more low sulphur crude oil from West Africa. There is an environmental reason for these trades. Some Asian Governments have decreased tolerance levels for sulphur and other pollutants in refined products — India and Thailand have lowered sulphur pollution limits from 0.25 per cent to 0.05 per cent. The Republic of Korea has already implemented the 0.05 per cent limit, which is still high compared with the European Union level of 0.035 per cent.

211. The Asian crisis of 1997 forced many Asian refineries to shelve plans for secondary refining capacity (e.g. adding catalytic cracking and hydrogen treating), that would have produced low-sulphur petroleum products. Installing such capacity would take a number of years and refineries without secondary refining capacity have to deal with the problem by including a higher proportion of West African, low-sulphur light crude, in their crude oil mix.

212. The quantity of West African crude moving eastward has approximately doubled over the past four years to the present level of 0.7–0.8 million barrels per day in 2000. Nearly half of West Africa's

incremental production of 0.8 million barrels per day through to 2003 could go to Asia. The Middle East Gulf exports to Asia are also expected to increase by 2003 to a massive 2.5 million barrels per day. Therefore, increased demand for VLCC and Suezmax is foreseeable due to increased shipments from West Africa and the Middle East Gulf.

213. Five of the top ten petroleum product routes in the world involve shipments to or within Asia. Among these, the inter-Southeast Asia accounts for spot movements of about 14 million tons per annum. With strong economies, limited oil reserves and long voyage distances, Asia now accounts for the biggest share of the world petroleum product tanker fleet. Tanker operators are now recovering from the two difficult years of 1998 and 1999. Seaborne movements will continue to grow in the years ahead as oil consumption expands throughout the region. However, important changes taking place in terms of national oil refining and product import policies, which are already having an impact on regional flows of petroleum products throughout the region.

214. An import ban on gasoline and gas oil over the past 22 months has helped to transform China from being a net importer of petroleum products to become a net exporter. Greater refinery productivity and upgrades will result in increased crude oil imports into China and reduced demand from refineries of Singapore, Republic of Korea and Japan. At present fuel oil accounts for 75 per cent of China's petroleum products imports, with most of these shipments arriving at southern ports. The ban on gasoline and gas oil imports may have to be lifted when China joins WTO but China may control petroleum product trade through import licenses.

215. During the year the massive 2.3 mbpd refining capacity of Republic of Korea, the third largest refiner in the region, led to an expansion of trade in petroleum products and heralded the country as a main distribution centre in the future.

216. The export-oriented oil refining business in Singapore is being challenged. Throughput of crude oil and petroleum products declined by 4 per cent in 1999, and the downward trend continued in 2000. During the first half of 2000 trade of petroleum products reached an average of just over 1.6 million barrels per day with diesel and fuel oil registering the heftiest declines. However, business was helped in August 2000 by the Indonesian decision to temporarily process 0.1 million barrels per day of crude oil in Singapore to meet domestic demand as a result of a fire that badly damaged the largest refinery of the country in West Java.

217. After a dismal spell of three years, the seaborne transport of chemical products from Asia rebounded in 2000 due to the shutdown for maintenance of the ethylene cracker at Stenungsund (Sweden) in December 1999. Competitively priced shipments of ethylene and propylene from East Asia to Europe partially covered the shortfall. The crisis of 1997 hit the market badly: Asian chemical imports slumped from over 1 million tons in 1996 to less than 100,000 tons in 1999. The recovery of demand would probably be reflected in an expansion of intra-Asian trade, perhaps not as buoyant as before, as new refineries may limit the need for imports from outside the region. Japan and the Republic of Korea, the primary exporters, could tap the Chinese market that is a major buyer of ethylene.

Bulk trades

218. The decline in freight rates in the bulk trades at the end of 2000 mentioned in Chapter IV may have a smaller impact for East Asian owners. This results from the stronger trade flows within Asia fuelled by China, which has its own momentum fed by strong domestic demand. Time charter rates for Capesize vessels that are favoured by the majority of Hong Kong, China bulk vessel owners, are expected to fall from the \$18,500 level to about \$14,000 a day by the end of 2001. Daily rates for Handymax tonnage have remained flat at \$8,000 a day. However, Asian owners may also face the prospect of shorter time charters, a common occurrence in falling markets.

Liner trades

219. In the liner trades, in addition to the intra-Asian trades, East Asia is at the centre of two of the three main East–West routes namely transpacific and Asia-Europe. The transpacific route has greater traffic than the Asia-Europe or transatlantic routes and accounts for nearly 60 per cent of carrier income on these routes. Drewry estimated total income generated across the Pacific last year at close to \$15 billion, up from just over \$11 billion in each of the previous three years. This compares with the \$6.7 billion generated on the Europe-Asia route and just under \$4 billion on the transatlantic route. It is the transpacific eastbound leg that is powering the boom, with income from ocean freight and ancillary charges put at \$11.7 billion, compared with \$7.0 billion in 1999 and less than \$8.4 billion in 1998.

220. During 2000, cargo flows across the Pacific increased impressively in both directions. Table 47 gives for an estimate of deployed capacity. Shipments from two loading ranges, China (including Hong Kong, China and Taiwan Province of China) and North East Asia (Japan and Republic of Korea) to the United States were expected to reach almost 5.5 million TEU, with this figure expected to climb further to 5.8 million TEU in 2001. Shipments from South East Asia, including the ASEAN-4 and Singapore, to the same destination grew by some 6 per cent to almost 1.1 million TEU, with further growth to 1.15 million TEU expected in 2001.

221. China is one of the main trading partners of the United States, accounting for about 2.6 million TEU of eastbound shipments in 2000. Westbound shipments from United States are very much smaller at 0.5 million TEU. But as China's huge domestic market is further opened to foreign goods as a result of the future membership to the WTO, this figure is poised to soar.

Table 47

Estimated annualized slot capacity in million of TEU ^a for transpacific trades

Operators/services	1998	1999	2000	1998	1999	2000
	Eastbound	Eastbound	Eastbound	Westbound	Westbound	Westbound
Global Alliance	1.38	-	-	1.25	-	-
Hyundai	0.60	-	-	0.60	-	-
New World	-	1.68	1.73	-	1.60	1.65
Former Grand Alliance	0.80	-	-	0.78	-	-
Grand Alliance	-	1.05	1.23	-	1.05	1.23
Maersk-Sealand	1.04	0.92	1.02	0.94	0.82	0.93
Tricon	0.13	-	-	0.12	-	-
Hanjin/Senator/ Cho Yang	0.89	1.05	1.05	0.90	1.04	1.05
Hanjin/Yangming	0.20	0.20	0.20	0.20	0.20	0.20
K Line	0.45	0.44	0.48	0.45	0.44	0.48
Yangming	0.17	0.17	0.17	0.17	0.17	0.17
Cosco	0.48	0.50	0.59	0.52	0.52	0.62
Evergreen	0.53	0.54	0.99	0.56	0.55	0.99

Operators/services	1998	1999	2000	1998	1999	2000
	Eastbound	Eastbound	Eastbound	Westbound	Westbound	Westbound
Evergreen/ Lloyd Triestino	0.15	0.15	-	0.13	0.15	-
Zim	0.15	0.15	0.24	0.15	0.15	0.24
Westwood	0.10	0.10	0.10	0.10	0.10	0.10
MSC	-	-	0.15	-	-	0.15
Norasia	-	-	0.13	-	-	0.13
China Shipping	-	-	0.12	-	-	0.12
CMA-CGM	-	-	0.09	-	-	0.10
Fesco	0.01	0.01	0.07	0.01	0.01	0.07
Others	0.07	0.07	0.23	0.02	0.01	0.16
Total	7.15	7.03	8.59	6.90	6.81	8.39

Source: Compiled by the UNCTAD secretariat from the LSE/Boxfile Containership Database.

^a As at 1 January 2000. The figures, which are rounded, give estimated physical slot capacity between North American and East Asian ports adjusted for slots utilized for intermediate legs, whether directly or by transshipment. They are not adjusted for temporary gaps or vessel substitutions. The figures are for the respective operations, and do not take into account slot charters between groupings.

222. The regulation of liner shipping in the trades to/from the United States according to the Ocean Shipping Reform Act (OSRA) of 1998 took effect on 1 May 1999. The Act enables carriers and shippers to negotiate individual and confidential service contracts rather than through the published terms and conditions of conferences. It hastened the demise of the two long established transpacific conferences, the Asia North America Eastbound Rate Agreement and the Transpacific Westbound Rate Agreement. However, two carrier syndicates, the 13-member TSA and 12-member WTSA, provide important forums for intelligence gathering and legal requirement monitoring, which are essential for carrier profitability.

223. Imbalance of cargo flows across the Pacific required repositioning of empties. In 1999, up to 21 per cent of container throughput of Hong Kong, China was empty containers while a slightly lower percentage, 17.7 per cent, was found in Port Klang. The problem spilled over to intra-regional routes and repositioning surcharges were applied by some carriers. Equipment repositioning is still the big issue for carriers and with most trade lanes picking up empties, their availability was a major factor in accepting cargo, even on weaker legs.

224. Cargo imbalances were not so pronounced in the Asia-Europe trade, two thirds of which is dominated by the Far Eastern Freight Conference (FEFC). The reason for this was a low exchange rate for the Euro and the possibility of lifting cargoes along the route from South Asia, Middle East and Mediterranean. Trade grew about 8.6 per cent but conference members added more than 11 per cent capacity on this route on the basis of increased trade with China. Although individual contracts were arranged between shippers and carriers there were common elements such as THC, and CAF and BAF surcharges.

225. New shipping services from Europe of existing carriers and newcomers to the Asian trade have focused on China. Republic of Korea and Southeast Asia also enjoyed better coverage as existing service loops were adjusted to provide more slots for these booming areas. Increased calls at Chinese ports took

place in two waves. During the first half of 2000 new services were started while late in the year carriers adjusted existing services to cover peak seasonal traffic.

226. The strength and good prospects for intra-Asian trades triggered expansion of East Asian carriers. APL, part of NOL,⁸ plans to double the size of its intra-Asian business by expanding dedicated intra-Asian services and feeder ones, linking into main services to Europe and North America. Accordingly, in January 2000 five new services were started: the Gulf Asia Line Express between the Gulf and Singapore; the West Asia Express linking the Middle East to West Asia; the Nhava Sheva Express; the Red Sea Express from Red Sea ports to Singapore; and the Jeddah Feeder Service. The West Asia Express was upgraded later in the year with the delivery of three newbuildings from Republic of Korea — 4,000 TEU ships on long term charter. Additional newbuilding, ten 5,500 TEU vessels, will be deployed in a new Asia-Europe service in 2001 as part of the New World Alliance with Mitsui OSK and Hyundai Merchant Marine. Moreover, as the Singapore-China trade boomed in 2000, Samudera Shipping Line, a partner with APL in other intra-Asia regional trades, started a new Singapore-Shanghai service.

227. The three main Japanese container carriers also enjoyed a good year and realised profits in their container businesses for the first time in 15 years. Optimistic cargo prospects encouraged them to invest about \$1.5 billion, not counting containers, in new vessels. K Line, having the smallest container fleet of the three, leads the way with an order for 12 post-Panamax containerships. Next is Mitsui OSK with 8 ships, followed by Nippon Yusen, the largest one, with 5. These carriers pursue aggressive rationalization of their businesses, including ordering new vessels from foreign shipyards and expanding services to other regions instead of the traditional reliance on East Asia trades.

228. The large containership order of K Line is its first since 1993 and signals a departure from planned expansion in the bulk sector, which was derailed by the Asian financial crisis. The vessels will replace smaller ones and container carrying capacity will be raised by at least 50 per cent. K Line's strategy is also to strengthen the loose alliance with Yangming and Cosco to increase transpacific and Asia-Europe presence and to decentralize management to overseas locations in London and Richmond. Mitsui OSK has likewise shifted responsibility for decision-making on liner matters to Hong Kong, China. This carrier is the only one to have placed all orders for its 6,000 TEU capacity ships in Japan for delivery during the first and third quarters of 2002. These vessels will replace ships of about 3,000 TEU and thus the line's capacity will be increased by around 24,000 TEU.

B. DEVELOPMENT OF TRANSPORT NETWORK

229. The development of the transport network in East Asia is the basis for efficient, rapid, and reliable transport and logistics services. The transport network embraces all transport modes and its functioning implies streamlined procedures and enabling legislation to accompany the efficient physical movement of goods. Providers of transport and logistics services operating over the network constantly re-evaluate their strategies as different combinations of modes and routes can give competitive advantage. Transit time, cost, as well as frequency, are some of the factors considered by users when judging the combined efficiency of the network and its transport and logistics services.

230. In South East Asia, the transport network is anchored by hub-centres of varying capacity such as Singapore; Port Klang, Malaysia; or Bangkok, Thailand. Destinations are reached through maritime links

⁸ Neptune Orient Line listed in the Singapore Stock Exchange.

with road, rail and inland waterways. These inland links are being progressively developed and are loosely coordinated through ASEAN.⁹

231. In China, the transport network is anchored by the largest container port in the world – Hong Kong — and a host of mainland and modernizing ports, notably Shanghai. Maritime and extensive inland waterway links are complemented by road links.

South East Asia

232. Singapore is considered the central location of the transport network of this area. The port is a major hub in the region¹⁰ with most container carriers making it the only direct call in the region. Non-stop vessels from Europe, North America and elsewhere tranship their cargoes at Singapore to feeder ships capable of getting into the physically restricted ports in other Asian countries (see table 48). It also acts as a logistics centre for South East Asia.

Table 48

Major sailing destinations at PSA

Country/region	No. of shipping lines	Average no. of daily sailings
Europe	59	5
West Asia	45	3
South Asia	66	5
Africa	58	3
Central and South America	27	2
Australasia	62	2
United States	42	3
China	62	4
Hong Kong, China	67	8
Japan	55	4
Republic of Korea	56	4
Taiwan Province of China	57	6
Indonesia	146	8
Malaysia	99	10
Philippines	31	1
Thailand	62	3

Source: Compiled by the UNCTAD secretariat from www.psa.com.sg.

233. The national load-centre policy favoured by Malaysia is leading to the establishment of another important anchor of the transport network — Port Klang. Under this policy containers are brought in from other local ports, especially Penang, Johor and Kuching. In 2000, about 30 per cent of the growth in transshipment traffic was generated in this way. Fostering the start of feeder carriers to ports of neighbouring countries, such as Belawan, Indonesia also generated additional traffic. Moreover, the

⁹ Member States are: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore and Thailand.

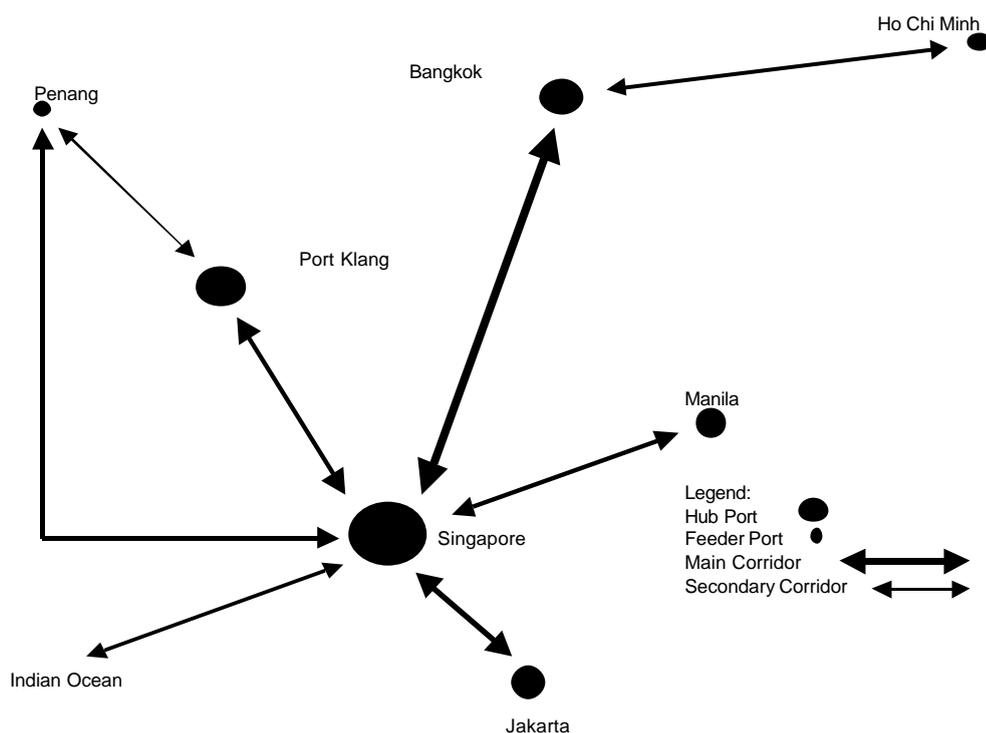
¹⁰ Singapore is a major port of call for 320 shipping lines from more than 738 ports worldwide.

merger of three terminal operators into two, North and West, have provided economies of scale while still maintaining competition within the port.

234. The following figure provides a schematic representation of the transport network in the region and table 49 illustrates containerised intra-ASEAN trade.

Figure 1

Transport network in South-East Asia



Source: UNCTAD secretariat

Table 49

Intra-ASEAN containerized traffic (1996–2000)

Year	Intra-ASEAN Trade (in thousand TEU)	Percentage change
1996	989	8.8
1997	1 096	10.82
1998 ^a	1 103	0.64
1999 ^a	1 126	2.09
2000 ^a	1 191	5.77

Source: Compiled by the UNCTAD secretariat from Containerisation International, various issues.

^a Estimate.

235. Shipping services provide crucial links of the transport network in this area since three of the five major trading partners in ASEAN are island countries (Indonesia, the Philippines and Singapore) while the other two have extensive coastlines. The crisis of 1997 and the still weak freight rates that prevailed in 2000 have tested the ability of several regional carriers to meet financial obligations and creditors' consent has been crucial to continue operations. Any delay in capital restructuring initiatives would affect credit quality adversely. Of 10 carriers¹¹ only 2 are deemed to have a fair overall credit profile. The key factors, which have resulted in deterioration in credit quality, are:

- ?? Limited geographic diversity. This has exposed several companies concentrating primarily on Asian trade routes to the adverse effect of the region's economic crisis;
- ?? Intense price-based competition. Led by lower cargo traffic in certain trade routes and excess capacity within several shipping segments, this has caused freight rates to drop significantly, and particularly has heightened the risk of single-segment operations for many Southeast Asian shipping companies;
- ?? Credit availability has worsened significantly. This has resulted from weaker earnings, rising operating costs, large foreign exchange losses as a result of the depreciation of regional currencies against the dollar, and a heavy reliance on debt to finance aggressive capital expenditure programmes;
- ?? A further limiting of financial flexibility. This reflects acute systemic problems plaguing regional domestic banking sectors, a lack of diversity in funding sources, weak asset values and depressed vessel resale conditions.

236. These carriers set-up shipping services to link individual ports in intricate patterns of dependency: hub/feeder or direct calls. Accordingly, individual ports aiming to become permanent and important anchors of the transport network rely on cargo volumes to attract these services (e.g. Jakarta, Manila, Bangkok) or modern facilities with enough spare capacity to become a purely transshipment port (e.g. Tanjung Pelepas).

237. Improved rail and inland waterway connections can also provide needed links to individual ports. At Penang about 13 per cent of its total throughput came from rail-bound trade generated from southern Thailand. A rail link for containerised cargo between Bangkok, Thailand and Port Klang, Malaysia has been operating since mid-1999. Twenty services per week with capacity of 50 to 60 TEU each are covering 1,323 kilometres in 50–55 hours. There is no customs examination nor reloading at the border. The six operators currently in business expect to have transported 36,000 TEUs by the end of 2000.¹²

238. Inland waterways in the region largely serve domestic traffic and several industrial areas have emerged or are emerging along major rivers, such as the Chao Phaya, Thailand and the Mekong. Transport services along the latter is still subject to navigational constraints (e.g. rapids, shoals, sharp bends in certain places, insufficient navigation aids, lack of recent hydrographic surveys), limited port facilities and operations, and finally an ageing river transport fleet. Improvements are underway with the Mekong River Commission¹³ creating awareness of the waterway's potential for international sea

¹¹ Neptune Orient Lines (NOL); Malaysia International Shipping Corp. (MISC); Regional Container Lines; Osprey Maritime; Samudera Shipping; William, Gothong & Aboitiz; Precious Shipping; PT Berlian Laju Tanker; Thoresen Thai agencies; and Negros Navigation.

¹² "Two more rail landbridge operators", *The Star Maritime*, 23 March 2000, Internet Edition.

¹³ Created in 1995 by Cambodia, Lao People's Democratic Republic, Thailand and Viet Nam to promote sustainable development of the Basin.

transport and conducting engineering studies for improving navigation. Investments of \$22 million with Japanese finance have been made at the port of Phnom Penh, Cambodia. Moreover, the transport ministers of China, Lao People's Democratic Republic, Myanmar and Thailand signed a navigation agreement in April 2000 for the opening of the Upper Mekong River to trading ships. This will largely benefit traders from Thailand and Yunnan, China, the two largest markets in the Upper Mekong.

The ASEAN framework for trade facilitation

239. The economic integration of ASEAN countries includes a package of commitments to progressively eliminate restrictions to trade in services. With the signing of the Protocol of 1998 in Hanoi, Viet Nam, a new round of negotiations covering air and sea transport, business services, telecommunications and tourism industry is expected to take place soon.

240. Moreover, the key objectives of the Framework Agreement on the Facilitation of Goods in Transit also agreed within ASEAN are:

1. To facilitate transportation of goods in transit, to support the implementation of the ASEAN Free Trade Area (AFTA), and to further integrate the region's economies;
2. To simplify and harmonize transport, trade and customs regulations and requirements for the purpose of facilitation of goods in transit;
3. To establish an effective, efficient, integrated and harmonized transit transport system in ASEAN.

241. Multimodal transport within ASEAN will also be made more effective through the Framework Agreement on Multimodal Transport, which will lay down the broad principles on minimum standards of registration and liability limits for ASEAN multimodal transport operators. The Agreement was to be adopted at the end of 2000 but some issues are still being negotiated and agreement may come in a ministerial meeting scheduled for October 2001.

China

242. In 2000, Hong Kong, China re-staked its claim to the title of being the busiest container port in the world. Container throughput grew by 11.7 per cent to reach 18.1 million TEU, compared with 16.2 million TEU in 1999. Hong Kong, China prosperity is based on continuing economic growth in southern China, which was mildly affected by the 1997 financial crisis. The permanence of Hong Kong, China as a major shipping hub and anchor of the transport network serving China seems to be assured by the positive results achieved on a number of initiatives.

243. Lower ship registration and mortgage fees for ship owners has resulted in the Hong Kong, China Register being close to the 10 million grt mark in 2000. Mutual recognition of arbitration awards with the mainland judiciary has now been agreed. An association of container operators was set up during the year to address the persistent problem of high handling costs. Moreover, the Port and Maritime Board set up a Logistics Committee in charge of drafting measures to assure that the port is a preferred regional and international logistics hub at the forefront of applied IT technology in distribution parks and logistics services.

244. Also during the year financing was secured for the expansion of the port. Container terminal 9 (CT9) will add over 2.6 million TEU of annual capacity through six berths (2 kilometres of quay), to the existing 18-berth Kwai Chung port. Some 80 hectares of the 150-hectare site will be given over to logistics and other port services. The new terminal will open in 2002 and be fully operational by 2004.

The project will also include dredging the entire Kwai Chung port to 15.5 metres to accommodate the latest generation of container vessels.

245. In 2000, container box throughput of port in mainland China rose by 37 per cent to a record 22.68 million TEU. Of that total, 20.5 million TEU was handled at sea ports, and 2.1 million TEU at river ports — an increase of 35 per cent and 87.8 per cent, respectively. Table 50 lists China's top five container ports, with Shanghai, Shenzhen and Qingdao accounting for about 78 per cent of the total throughput.

Table 50

China top five container ports, 2000
(millions of TEU)

Port	TEU throughput	TEU increase over 1999 (in per cent)
Shanghai	5.61	+33
Shenzhen	3.96	+55
Qingdao	2.12	+45
Tianjin	1.71	+40
Guangzhou	1.43	+26

Source: UNCTAD secretariat compiled from information from the Ministry of Communication of the People's Republic of China.

246. The total cargo throughput of Chinese ports exceeded 1,150 million tons in 1998 of which 890 million tons were handled in the top 20 ports (see table 51). International traffic reached 360.0 million tons of which 330 million tons were moved through the main coastal ports, 20 million tons through ports along the Yangtze River and 10 million tons through other ports. The policy of encouraging direct calls of mainline containerships with the aim to reduce transshipment in foreign ports¹⁴ started to show results in 1998. Transshipment of containers in foreign ports was reduced by 9.7 per cent while the volume of those transhipped in China went up by 60 per cent reaching 0.16 million TEU.

247. International cargoes move to and from the ports primarily by road. In Shanghai, road transport accounts for 84 per cent of imports and 74 per cent of exports with the balance being taken care of by river and coastal transport. Shanghai is without doubt the leading port and the investment plans mentioned in chapter IV aims to reinforce that role. The Techno-Super-Liner¹⁵ made sailing trials to this port in February 2000. This Japanese ship can carry 1,000 tons at 50 knots and will reduce the trip time between Shanghai and Japan from 60 to 22 hours. It is estimated that up to 40 per cent of priority cargo (e.g. perishables) may be amenable to use it.

¹⁴ A surcharge of 20 per cent of port charges was applied to vessels engaged in short-sea services.

¹⁵ The Challenge for Maritime Transport at the Dawn of the 21st Century. Ports and Harbors, December 2000, pages 12 to 15.

Table 51

Top 20 ports in handling capacity in China
(million tons)

Serial number	Port	Cargo throughput in 1998 (in million tons)	Growth rate on 1997 (in per cent)
1	Shanghai	163.5	0.3
2	Ningbo	87.0	5.9
3	Guangzhou	78.6	4.6
4	Qinhuangdao	77.9	-0.9
5	Dalian	75.1	6.6
6	Qingdao	70.2	1.5
7	Tianjin	68.2	0.4
8	Nanjing	52.8	-3.9
9	Shenzhen	33.7	0.5
10	Nantong	20.2	6.3
11	Zhanjiang	18.4	-10.6
12	Lianyungang	17.8	7.5
13	Yingkou	17.7	10.6
14	Rizhaogang	17.2	4.4
15	Zhenjiang	16.8	-1.8
16	Xiamen	16.4	-8.9
17	Zhoushan	15.6	9.8
18	Yantai	15.1	-3.1
19	Zhangjianggang	13.9	22.9
20	Wuhan	13.8	-16.6

Source: China Shipping Development Annual Report, 1998, Department of Water Transport, Ministry of Communications of the People's Republic of China.

248. Shenzhen port is complementary to Hong Kong, China with the advantage of considerably lower handling costs: handling a container is estimated to cost \$30–\$40 in this port while in Hong Kong, China it can cost up to \$200. Cargo volumes along the Pearl River Delta are expected to continue to grow at a high rate and be handled through river ports, notably Guangzhou. Chinese ports need to address some productivity challenges if they are to cope with an anticipated flood of imported goods once China joins the WTO. In terms of crane moves per hour most mainland China wharves average between 22 and 25 compared with about 30 to 35 in Hong Kong, China. Some berths in Shanghai, Shenzhen and Yantian operated at near capacity during 2000, and could not handle the larger containerships. Most ports in China were also hampered by rigid pricing and payment systems.

Figure 2

Major ports in China



249. Maritime links with China are provided mainly by COSCO, which is the third largest shipping company in the world, after NYK and MOL of Japan. COSCO own and operates 23 million dwt in over 540 vessels of different types: tankers, dry bulk carriers, containerships, multipurpose and passenger vessels. It moved over 150 million tons of cargoes in 1999. Current policy aims to continue the expansion of the shipping business and tankers and dry bulk carriers were ordered during the first quarter of 2001. Also COSCO fostered the development of logistics businesses to undertake warehousing, processing, distribution and even basic elements of manufacturing. The starting of shore-based businesses to counteract the cycles of the shipping business is also being considered.

250. A major container carrier, Evergreen Marine Corporation from Taiwan Province of China, is also based in this trading region. Evergreen is an independent carrier with 134 ships moving containerized cargo in more than 80 countries and its success is based on adherence to a strict quality control system that assures cargo owners reliable and on-time delivery and smooth service.

C. TRANSPORT PROBLEMS IN ASIAN LANDLOCKED COUNTRIES

251. Table 52 provides estimates of total freight payments for imports and freight costs as a percentage of total import value by Asian developing country groups. South Asia recorded a substantially higher freight costs ratio at 11.07 per cent. This is mainly attributable to Nepal, one of the landlocked countries in the subregion registering freight cost at 15.03 per cent. The ASEAN countries have benefited from lower freight cost at 6.94 per cent for 1999 while the Republic of Korea was subject to the lowest freight costs ratios of 5.22 per cent.

Table 52

Estimates of total freight costs on imports of Asian developing countries, 1999^a (millions of US dollars)

Country group	Estimate of total freight costs imports	Value of imports (c.i.f.)	Freight costs as a percentage of import value
Asia	60 782	779 686	7.80
South Asia	7 812	70 566	11.07
ASEAN	20 515	295 472	6.94
Republic of Korea	6 255	119 740	5.22

Source: UNCTAD secretariat on the basis of data supplied by IMF

^a The estimates are not complete, since data for countries that are not members of the IMF, are not included for lack of information or other reasons.

252. Landlocked countries in Asia continue to suffer from excessive transport costs. High import transport costs inflate consumer prices of imported goods, and high transport costs for exports undermine their competitiveness in foreign markets. International transport costs are defined as the direct and indirect costs which are incidental to the transportation of goods from their point of origin to their point of destination. The major elements accounting for the high freight costs for landlocked developing countries include inadequate infrastructure, poor management of transport facilities, imbalance of trade, and cumbersome administrative procedures (see table 53).

Table 53

Estimates of total freight costs of total import value in world trade by selected Asian landlocked countries, 1999
(millions of US dollars)

	Estimate of total freight costs of imports	Total import value	Freight costs as a percentage of import value
Nepal	225	1 499	15.03
Lao PDR	78	626	12.47

Source: UNCTAD secretariat on the basis of data supplied by the IMF.

253. The competitiveness of internationally traded products is greatly influenced by various factors, one of which is overall transportation costs. The cost associated with the physical transfer of goods is an essential piece of information in the negotiation of a contract. Transit time is also an important element as goods are required at a specific time and goods-in-transit tie up capital. Uncertainty in quantifying both direct as well as indirect costs is another issue that can disadvantage local traders.

Transit and ocean freight costs for Lao People's Democratic Republic exports

254. Establishing door-to-door container-load costs on any given trade can be a potential nightmare for exporters. Invariably the process is highly time consuming, confusing and complex to calculate. Table 54 illustrates the differences in transit and ocean freight costs for Lao People's Democratic Republic exports to Rotterdam of alternative routes. Freight rates quoted are for the shipment of one TEU based on Freight All Kind (FAK) tariff. Of all the possible alternative routes between Vientiane (Lao People's Democratic Republic) and Rotterdam, the option via Port Klang in Malaysia in terms of cost was the best. The transit time for this route was also shorter, between 27–28 days, instead of 30–32 days for the other routes. It should be recalled that freight charges are not constant and are adjusted for seasonal peaks, or other types of surcharges which increases the freight rates compared to those obtained in this table.

255. When comparing the costs involved, sea transport was, as expected, the cheapest per kilometre, rail was intermediate, and road transport was the most expensive. Road transport averaged \$0.55–0.70 per kilometre depending on the routes, rail freight was between \$0.20–0.30 per kilometre, and sea transport was around \$0.11–0.14 per kilometre. For Laotian exporters, on average, the total transport costs to Rotterdam was shared by road transport (16.2 per cent), rail transport (3.2 per cent), sea transport (55.2 per cent), and other charges (25.4 per cent). On certain routes, such as via Bangkok, Thailand, transit and local charges represented up to 10 per cent of the total transport costs. Thus Laotian exporters' transport costs are roughly 30 per cent higher than those for Thai or Malaysian exporters.

256. Lao People's Democratic Republic infrastructure limitations is a major constraint to the economic development of the country, and as a bottleneck for trade expansion and transport facilitation. Road quality is poor as only 43 per cent of roads are paved. The "wet season" renders some roads unusable thus diverting traffic to poorly developed inland waterways. The country is also dependent on the quality of infrastructure available in neighbouring countries. The road infrastructure of Viet Nam is considered poor, while Thailand's infrastructure is deemed adequate, though transport is affected by traffic congestion and poorly maintained sections of road.

Table 54

Comparison of transit and freight costs for export from Lao PDR to Rotterdam (Netherlands), 2000
(US dollars per TEU)

From	Mode	Freight rates	Km	To	Mode	Freight rates	Km	To	Mode	Freight rates	Other charges	Total Costs
Vientiane	Road	750	1 060	Danang Port (Viet Nam)	Sea	1 670	17 269	Rotterdam	-	-	1 000	3 420
Vientiane	Road	362	650	Bangkok Port (Thailand)	Sea	1 500	16 899	Rotterdam	-	-	622	2 484
Vientiane	Road	1 572	2 190	Singapore Port	Sea	1 270	15 359	Rotterdam	-	-	867	3 709
Vientiane	Road	409	731	Laem Chabang Port (Thailand)	Sea	1 500	16 850	Rotterdam	-	-	602	2 511
Vientiane	Road	362	612	Lad Krabang ICD (Thailand)	Rail	23	113	Laem Chabang Port to Rotterdam	Sea	1 500	641	2 526
Vientiane	Road	362	612	Lad Krabang ICD (Thailand)	Rail	380	1 323	Port Klang, Malaysia to Rotterdam (14 970 km)	Sea	1 200	533	2 475
Vientiane	Road	47	17	Nongkhai (Thailand)	Rail	800	2 168	Singapore Port to Rotterdam (15 359 km)	Sea	1 270	943	3 060

Source: UNCTAD secretariat compiled from specialised sources

Note: Other charges represents handling charges, THC, document charges, port charges, customs charges and miscellaneous charges paid for transit process.

257. As well, transit procedures are cumbersome. For Laotian imports, the Vietnamese Ministry of Trade must issue transit documents upon the request of the Lao People's Democratic Republic Ministry of Commerce, which may take up to 15 days. For shipments through Thailand, transit documents and certificates of final destination issued by the Laotian Embassy in Bangkok are sufficient to release transit cargo from Thai customs and to allow them to continue their journey into Lao People's Democratic Republic. Also Laotian importers face difficulties when opening letters of credit as many Government agencies are involved (e.g. Ministry of Finance, Ministry of Commerce, Ministry of Justice, Bank of Lao People's Democratic Republic, local councils, etc.). The import procedures are also very complicated and an import license is needed from the Ministry of Commerce each time goods are imported.

258. Cumbersome Laotian rules and regulations are partly due to the overlapping authority of the various ministries and partly to the discrepancy between practical interpretation of policies. This has resulted in increased paperwork and complicated procedures for import, export and transit of goods to and from the Lao People's Democratic Republic.

259. Another issue related with Laotian transit cargo is the transit of other countries' cargo through Lao People's Democratic Republic. Lao People's Democratic Republic provinces have set up "transit fees" depending on the commodity.¹⁶ The fee is set at 10 per cent, 7 per cent and 5 per cent of the c.i.f. price. Savannakhet, one of the four largest cities in the country managed to collect over \$2.5 million in 1999. Goods transiting through Laos People's Democratic Republic are significant: from Thailand to Viet Nam the value of transit goods was over \$76 million while in the opposite direction it was only about \$8.5 million. Savannakhet Province is now financially self-sufficient.

¹⁶ "Savannakhet's success in transit goods service", *Vientiane Times*, 7 July 2000, Internet Edition.