

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Geneva

# **REVIEW OF MARITIME TRANSPORT, 2001**

## **Chapter V**

United Nations

New York and Geneva, 2001

## Chapter V

### PORT DEVELOPMENT

*This chapter covers container port throughput for developing countries, improving port performance, institutional changes in ports and special needs of small ports.*

#### A. CONTAINER PORT TRAFFIC

124. Table 41 gives the latest available figures on reported world container port traffic in developing countries and territories for the period 1997 to 1999. The world growth rate for container port throughput (number of movements measured in TEUs) increased by 7.3 per cent in 1999 following a substantial increase of 10.1 per cent in 1998. This reflects the trade slowdown due to the 1998 financial crisis in South-East Asia. The world throughput for 1999 reached 195.3 million TEU, an annual increase of 13.3 million TEU, from the level reached in 1998 of 182.0 million TEU.

Table 41

#### Container port traffic of 48 developing countries and territories in 1999, 1998 and 1997 (in TEUs)

Country or territory	TEUs 1999	TEUs 1998	TEUs 1997	% change 1999/1998	% change 1998/1997
Hong Kong, China	16 210 792	14 582 000	14 567 231	11.2	0.1
Singapore	15 944 793	15 135 557	14 135 300	5.3	7.1
Republic of Korea	7 014 245	6 460 461	5 636 876	8.6	14.6
United Arab Emirates	4 930 299	4 531 625	4 191 421	8.8	8.1
Malaysia	3 941 777	3 026 447	2 841 003	30.2	6.5
Thailand	2 892 216	2 638 906	2 204 500	9.6	19.7
Philippines	2 813 099	2 442 158	2 510 849	15.2	-2.7
Indonesia	2 660 439	2 203 274	2 402 207	20.7	-8.3
Brazil	2 022 842	1 743 639	1 419 950	16.0	22.8
India	1 954 025	1 745 669	1 460 871	11.9	19.5
Sri Lanka	1 704 389	1 714 077	1 687 184	-0.6	1.6
Panama	1 649 512	1 425 788	1 269 270	15.7	12.3
Egypt	1 473 149	1 095 549	1 409 248	34.5	-22.3
Saudi Arabia	1 448 338	1 366 746	1 296 941	6.0	5.4
Malta	1 091 364	1 118 741	704 427	-2.4	58.8
Mexico	1 083 887	945 087	832 475	14.7	13.5
Argentina	1 021 973	806 674	720 247	26.7	12.0
Oman	773 806	139 090	109 187	456.3	27.4
Chile	743 364	758 992	711 112	-2.1	6.7
Pakistan	696 649	701 213	608 065	-0.6	15.3
Jamaica	689 677	671 130	496 682	2.8	35.1

Country or territory	TEUs 1999	TEUs 1998	TEUs 1997	% change 1999/1998	% change 1998/1997
Venezuela	654 148	830 109	606 035	-21.2	37.0
Costa Rica	590 000	450 000	226 960	31.1	98.3
Bahamas	543 993	470 047	n.a.	15.7	-
Colombia	413 935	88 130	75 169	369.7	17.2
Bangladesh	392 137	345 327	300 476	13.6	14.9
Ecuador	378 000	407 434	375 894	-7.2	8.4
Peru	376 045	378 013	321 568	-0.5	17.5
Côte d'Ivoire	354 389	468 727	416 111	-24.4	12.6
Iran, Islamic Republic of	320 622	325 904	254 454	-1.6	28.1
Trinidad and Tobago	298 553	270 204	239 952	10.5	12.6
Morocco	296 223	260 513	210 687	13.7	23.6
Lebanon	271 409	290 409	309 719	-6.5	-6.2
Uruguay	250 227	265 892	201 964	-5.9	31.6
Cyprus	239 077	214 030	402 700	11.7	-46.8
Kuwait	174 383	n.a.	n.a.	-	-
Guatemala	151 493	144 085	n.a.	5.1	-
Senegal	148 740	115 039	110 836	29.3	3.8
Reunion	146 172	n.a.	123 734	-	-
Guam	145 191	163 855	164 469	-11.4	-0.4
Mauritius	144 269	136 417	116 956	5.8	16.6
Martinique	141 700	135 700	141 650	4.4	-4.2
Papua New Guinea	138 110	144 630	149 869	-4.5	-3.5
Bahrain	122 000	76 431	109 840	59.6	-30.4
Cameroon	121 563	118 238	116 578	2.8	1.4
Yemen	121 563	57 537	13 456	111.3	327.6
United Republic of Tanzania	106 304	108 362	103 432	-1.9	4.8
Guadeloupe	104 000	103 473	99 643	0.5	3.8
<b>Total</b>	<b>79 904 881</b>	<b>71 621 329</b>	<b>66 407 198</b>	<b>11.6</b>	<b>7.8</b>
<b>Other reported<sup>a</sup></b>	<b>962 004</b>	<b>1 259 355</b>	<b>1 387 549</b>	<b>-23.6</b>	<b>-9.2</b>
<b>Total reported<sup>b</sup></b>	<b>80 866 885</b>	<b>72 880 684</b>	<b>67 794 747</b>	<b>11.0</b>	<b>7.5</b>
<b>World total</b>	<b>195 261 458</b>	<b>181 982 976</b>	<b>165 234 028</b>	<b>7.3</b>	<b>10.1</b>

Sources: Derived from information contained in *Containerisation International Yearbook, 2001*, and from information obtained by the UNCTAD secretariat directly from terminal operators or port authorities.

<sup>a</sup> Comprising developing countries and territories where less than 95,000 TEU per year were reported or where a substantial lack of data was noted.

<sup>b</sup> Certain ports did not respond to the background survey. While they were not amongst the largest ports, total omissions may be estimated at 5 to 10 per cent.

125. The rate of growth for developing countries and territories was 11.0 per cent with a throughput of 80.9 million TEU, which accounts for about 41.0 per cent of world total throughput. Again there was a slowdown from the 7.5 per cent growth rate reached in 1998 where throughput of developing countries reached 72.9 million TEU. Countries with double-digit growth in 1998 and 1999 were Hong Kong (China), Malaysia, the Philippines, India, Brazil, Indonesia, India, Egypt, Panama, Mexico, Argentina, Oman, Costa Rica, the Bahamas, Colombia, Bangladesh, Trinidad and Tobago, Morocco, Cyprus,

Senegal, Bahrain and Yemen. The growth rate in developing countries is uneven from year to year, owing sometimes to strong fluctuations in trade and sometimes to improved reporting of data or lack of data for some years.

126. Initial figures for 2000 are available for the leading 20 ports of the world handling containers and the results are indicated in table 42. There were 8 ports of developing countries and territories and socialist countries of Asia in the list with the remaining 12 located in developed market-economy countries. Of the latter there were 6 in Europe, 4 in the United States and 2 in Japan. Hong Kong, China maintained its leadership by reporting another double-digit growth rate. Most of the 10 leading ports maintained their position with the exception of Busan and Shanghai, which jumped ahead of Kaohsiung and Los Angeles respectively. Among the rest, the most remarkable change was that of Port Klang that jumped from the 15th to the 11th position. Almost half of the ports reported double-digit growth rates in 2000 and 1999.

Table 42

**Top 20 container terminals and their throughput, 2000 and 1999**  
(in TEUs)

Ranking 2000	Ranking 1999	Port	2000 TEU	1999 TEU	Change 2000	Change 1999
1	1	Hong Kong, China	18 100 000	16 210 792	11.7	11.2
2	2	Singapore	17 040 000	15 944 793	6.9	5.4
3	4	Busan	7 540 387	6 439 589	17.1	22.7
4	3	Kaohsiung	7 425 832	6 985 361	6.3	23.0
5	5	Rotterdam	6 275 000	6 343 242	-1.1	15.4
6	7	Shanghai	5 613 000	4 210 000	33.3	25.8
7	8	Los Angeles	4 879 429	3 828 852	27.4	67.1
8	6	Long Beach	4 600 787	4 408 480	4.4	29.4
9	9	Hamburg	4 248 000	3 738 307	13.6	12.0
10	10	Antwerp	4 082 334	3 614 246	13.0	21.7
11	15	Port Klang	3 206 428	2 550 419	25.7	16.5
12	12	Dubai	3 058 886	2 844 634	7.5	9.4
13	11	New York	3 006 493	2 863 342	5.0	21.3
14	14	Tokyo	2 960 000	2 695 589	9.8	16.1
15	13	Felixstowe	2 800 000	2 696 659	3.8	51.4
16	18	Bremerhaven	2 712 420	2 180 955	24.4	8.7
17	17	Gioia Tauro	2 652 701	2 253 401	17.7	55.6
18	16	Tanjung Priok	2 476 152	2 273 300	8.9	27.8
19	22	San Juan	2 392 749	2 084 711	14.8	11.9
20	20	Yokohama	2 317 393	2 172 919	6.6	-7.4

Source: *Containerisation International*, March 2001 and *Port Development International*, April 2001.

## B. IMPROVING PORT PERFORMANCE

127. During the year, the port of Singapore twice announced ship handling rates of over 200 container per hour working vessels at Brani terminal. In March, the terminal achieved 210 containers per hour, then in October realized a turnover of 2,129 container in just over 10 hours. A terminal operator from Hong Kong, China claimed a record after handling 15,660 containers (28,623 TEUs) in a 7-day period or 168 hours. These outputs represent annual throughputs of over 1 million TEU per berth. While these are remarkable achievements, productivity level in other ports must also reach satisfactory levels to assure the smooth functioning of the worldwide transport network. This is true for all ports whether they are located in developing countries or in other groupings.

128. Poor port performance results in weak nodes in the international transport network and, sometimes, calls for remedial actions by the highest decision-makers. The President of the Russian Federation quoted losses of \$1.5 billion per year due to poor port services<sup>3</sup> and noted that 70 million tons of national cargo are now being transited via Finnish and Baltic ports.

129. Labour unrest hampered performance in a few ports notably where the aim was to further the privatization process and to overcome restrictive practices. Earlier in the year there were strikes in several Indian ports and the armed forces were called in to handle some consignments. The port of Chittagong (Bangladesh) was also affected by strikes. In South America there were disruptions of service in some Chilean ports and in Santos (Brazil). The participation of trade unions in the reform and privatization process is being advocated by the ITF<sup>4</sup> as a means to avoid conflict and to share the benefits of productivity gains.

130. Fresh investment to cope with increased traffic or to upgrade services is another way to improve performance. During the year a number of ports announced plans to this end. The port of Shanghai, China plans to invest about \$220 million to build five 15-metre draft berths able to serve 6,000 TEU vessels from 2005. In this scheme over 38 square kilometres of port land would be added. Mexican ports announced an investment budget for 2001 of \$129 million.

131. In most ports, however, investment was a combined effort of the public and private sectors and was an important component of the privatization process. In February 2000, South Asia Gateway, an international investor with P&O Ports as a shareholder, started the \$240 million scheme in Colombo, Sri Lanka that will multiply terminal capacity fourfold to 1 million TEU by 2002. The \$10 million oil tanker development for the port of Shihanoukville, Cambodia was made jointly with the Government and Marubeni, Japan. Private sector development agencies are also involved. For example, the International Finance Corporation, part of the World Bank, participated in the \$50 million investment by the local port operator Wilson & Sons in Rio Grande, Brazil.

132. Pooling of resources was also common to undertake these investments. The \$130 million development in Port Said involved A.P. Moller (Denmark) and ECT (The Netherlands) in addition to local participation. The Port Development Consortium in charge of expanding the port of Maputo, Mozambique, with the exception of the container terminal, was composed of a construction company (Skanska - Sweden), a port operator (Liscont - Portugal), and local investors (Mozambique Gestores). The Consortium entered into a joint venture with the port authority whereby the latter supplied 49 per cent of the capital.

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<sup>3</sup> [www.informare.it/news/review/2000/b070800.asp](http://www.informare.it/news/review/2000/b070800.asp) quoting Journal of Commerce, edition 7 August 2000.

<sup>4</sup> Presentation of K. Marges, ITF Dockers' Section Secretary in Conference on Privatization (Lisbon, Portugal, 22–23 February 2000).

133. The involvement of international cargo handling operators is deemed crucial for strengthening existing ports in the worldwide transport network. Two agreements reached during the first half of 2000 illustrate this point. ICTSI International Holdings Corporation from Philippines is one of the partners in the company winning the concession for the container terminal of Dar es Salaam, United Republic of Tanzania. Dubai Port International was awarded the concession of the port of Djibouti with the aim of developing it as a regional hub.

134. The participation of these international cargo-handling operators or shipping lines in these investments can result in totally new ports that add new nodes to the worldwide transport network and may challenge existing ports. During the year the green light was given to proceed with the \$300 million container terminal of Tangiers, Morocco in which Hesseantie, the largest Belgian container port operator, is involved. This development may challenge the transshipment business of Algeciras, Spain and brings to mind examples of recent years — Freeport, Bahamas undertaken by Hutchison Port Holdings and Salalah (Oman) with the backing of Maersk Sealand, one of the largest container carriers.

135. Investments in facilities linked to ports may bring considerable benefits to port performance. During the year construction of the 32-kilometre Alameda Corridor linking the ports of Los Angeles and Long Beach, on the West Coast of the United States, with the transcontinental rail networks of Union Pacific Railroad and Burlington Northern Santa Fe Railway continued as planned. This complex project segregates and upgrades road and rail transport by eliminating over 200 street-level crossings, consolidating four railway lines and widening road expressways which will reduce pollution, noise and accidents. Port authorities financing, a federal loan and transportation grants are funding the project with loans being repaid through user fees. When completed, delays to and from the port will be greatly reduced.

136. Poor port performance may stem from problems external to the port. Stoppages by truck drivers due to increases in petrol prices, increased insurance costs and slow turnaround time while within port premises disrupted container operations in some ports in Florida, United States during the first quarter of 2000. During the second half of the year customs clearance procedures in Spanish ports started to speed up following enactment of a law restricting cargo clearance on behalf of third parties to licensed customs agents.

137. Finally, complaints about high port charges indicate the need to take steps to improve port performance. In Santos, Brazil the average \$350 handling charge per container was excessive compared to neighbouring ports and is helping to implement port reforms. In Durban, South Africa, the port authority agreed, under certain conditions, to compensate container shipping lines for berthing delays in excess of 16 hours and simultaneously brought in ad-hoc expertise to address the problems faced in operating the container terminal.

### **C. INSTITUTIONAL CHANGE**

138. The role of international cargo-handling operators is now a well-established feature of container trades. These firms have substantial container throughputs and aim to provide standard services to global liner shipping companies. In 2000, the operators handling more than 5million TEUs were: PSA Corporation, Hutchison Port Holdings (HPH), P&O Ports and Stevedoring Services of America (SSA).

139. HPH handled around 22 million TEU through 136 berths located in 18 ports. These are Hong Kong, Shanghai, Yantian, Guanzou, Shenzhen, Pearl River Delta, Shauntou and Xiamen in China; Yangon, Myanmar; Port Klang, Malaysia; Tanjung Priok, Indonesia; Felixstowe, Thamesport and Harwich in the United Kingdom; Rotterdam, the Netherlands; Freeport, Bahamas; and Cristobal and Balboa in Panama. PSA Corporation handled about 20 million TEU through its facilities in Singapore; Dalian and Fuzhou in China; Tuticorin and Pipavav in India; Inchon, Republic of Korea; Genoa and Venice in Italy; Aden, Yemen; Sines, Portugal and Muara, Brunei. P&O Ports handled 8.3 million TEU through terminals located in 24 ports. These are: Sydney, Melbourne, Brisbane and Freemantle in

Australia; Buenos Aires, Argentina; Antwerp, Belgium; Shekou, Tianjin and Qingdao in China; Nhava Sheva, Kandla, Chennai and Cochin in India; Tanjung Perak, Indonesia; Cagliari, Italy; Maputo, Mozambique; Port Qasim, Pakistan; Manila, the Philippines; Vostochny, Russian Federation; Colombo, Sri Lanka; Laem Chabang, Thailand; Southampton and Tilbury in the United Kingdom and Newark, United States. Finally, SSA reached 5 million TEU in 60 facilities concentrated in the United States and 12 international locations such as Colon, Panama and Manzanillo, Mexico.

140. Lesser international cargo-handling operators such as ICTSI from Philippines, which handled 2.7 million TEU in 2000 can have sizable turnovers — more than \$300 million. There are a number of national operators that are progressively expanding activities or merging with other operators across borders. Ceres and Holt from the United States were expanding into Europe and Caribbean respectively. Eurokai of Hamburg merged with BSL from Bremen to establish Eurogate. A domestic operator, Urbaser, with annual revenues of \$86 million came into being with activities in several Spanish ports.

141. Maersk-Sealand, a major sea carrier in container shipping, is also an international cargo-handling operator that runs dedicated terminals to support its worldwide shipping network. This line pursues a policy of dedicated terminals and after protracted negotiations with PSA Corp. failed to obtain dedicated facilities in Singapore. By the end of the year, it had moved operations to a new neighbouring Malaysian port, Tanjung Pelepas, where it took a 30 per cent share.

142. The acquisition and merger activities of international port operators have started to come to the attention of regulators. Late in the year, Directorate IV of the European Commission in charge of enforcing competition rules gave notice to ECT of Rotterdam to report on its current shareholders in three weeks. ECT was originally to be sold in 1999 to HPH and a Dutch consortium, each having 50 per cent of shares. The Directorate had considered that the purchase gave dominance to HPH of the North European container market and, subsequently, both shareholders reduced their stakes to 35 per cent. As the remaining 30 per cent was deemed to be owned only temporarily by a third party, the Directorate sought clarification on this point and has now approved the arrangement.

143. Concerns for vertical and horizontal integration were also voiced at the time of tendering for Chilean terminals, in August 1999. The regulators decided that the concessionaire of a terminal could not own more than 15 per cent in a neighbouring terminal or port. Furthermore over 40 per cent of a terminal could not be owned by a relevant party. This was defined as an individual, shipping line or shipper, who was responsible for more than 25 per cent of the throughput in the terminal or 15 per cent of throughput in neighbouring ports during the past year.

144. During 2000, the Government of Argentina allowed merging of operators in the port of Buenos Aires and concerns were voiced by shippers about this concentration of services in a few hands. TRP, partially owned by P&O Ports, purchased TPA thus enlarging the group's capacity fourfold to almost 2 million TEU. Maersk-Sealand took majority shareholding in T4, owned by a group of local operators, and is said to be planning to invest \$40 million to expand capacity. As a result the five operators in the port have now been reduced to three. However, there are also operators available outside the port: Exolgan continued operations in Dock Sud and a new terminal was being developed at Zarate.

145. The considerable financial clout of international cargo-handling operators allows them to tap the financial markets for port development. By the end of the year PSA successfully raised close to \$900 million through two bond issues. ICTSI sold about 30 per cent of its shares to American institutional investors.

146. The establishment of port authorities closely modeled along commercial lines continued. The State of Bremen, Germany decided to establish its port authority as a limited company with shares fully-owned by the State. This follows similar moves in Antwerp and Ghent in recent years. Moreover, to gain full flexibility to act commercially, the port authority for Rotterdam, RMPM, was authorized to set up a holding company Mainport Holding Rotterdam (MHR). MHR will be able to participate in logistics and

industrial businesses that support the port and its region without having to ask for approval from the Municipal Council.

147. However, the full exposure to the financial markets could be a mixed blessing. In the first quarter of 2000 the performance of ABP, the port authority for 23 British ports (listed in the London Stock Exchange), was deemed unsatisfactory for financial analysts relevant to the results achieved by smaller and more dynamic companies. For example, Mersey, the authority for the port of Liverpool, achieved returns on assets of 17 per cent. ABP, after writing off losses of about \$120 million for an ill-fated purchase in the United States, had only an 11 per cent return on assets.

148. Nevertheless, public finance is needed for major development schemes. About a 50-50 split is planned for the \$444 million Euromax Terminal being proposed by ECT and Nedlloyd in Rotterdam. The terminal will cover 125 hectares with a 2.3-kilometre quay length and be ready by 2004. Also the proposed deepwater container port to be built in Wilhemshaven will probably receive grants from the Government of Germany.

149. The involvement of the public sector requires a balanced approach, notably during the privatization process. The Government of India published a model concession document for allowing a smooth bidding process. The process would be divided in two stages. The first stage would qualify bidders based on their experience and financial strength. Bidders must have experience in managing terminals with at least 50 per cent of the capacity of the terminal being tendered for and 20 per cent of bidder's net worth must be equal to at least 50 per cent of project cost. In the second stage the bidders will present the technical proposal and the financial conditions. The Institut des Sciences et des Techniques de l'Équipement et de l'Environnement pour le Développement (ISTED)<sup>5</sup> proposes a risk management approach to reach a balanced mix of public and private funds devoted to ports concessions. The identified risks for construction and operation of port concessions should be distributed with the help of the financial agencies participating in the scheme.

150. In undeveloped areas port investments could bring substantial increases in living standards. During the year South Africa unveiled plans with European capital for a 6000 ha deepwater industrial port initially containing a zinc refinery. The construction phase would create about 10,000 jobs.

#### **D. SPECIAL NEEDS OF SMALL PORTS**

151. There are a number of ports along the shores of the Indian Ocean that cater for modern and traditional trades. The latter is based on dhows, small sailing and motor vessels, transporting small consignments of merchandise for retailers and individuals, including goods for construction or small manufacturing ventures.

152. Large dhows carry about 200–300 tons and call at ports of the Gulf and Aden, along the Horn and the East Coast of Africa to Pakistan and India — Gujarat and along the Coasts of Malabar and Coromandel. It is seasonal traffic peaking in the Horn and East Coast of Africa between December and June. Smaller dhows such as those found in East Africa<sup>6</sup> may have capacity of 30 tons (sailing dhows) and 100 tons (motor dhows).

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<sup>5</sup> Report "Public-private port partnerships in developing countries: analysis, sharing and management of risks". Available in English and French from ISTED. See website: [www.isted.com](http://www.isted.com).

<sup>6</sup> Preliminary Study of the East African Informal Maritime Sector by Geoffrey Boerne, Seafarers International Research Centre, Department of Maritime Studies and International Transport, Cardiff University, Wales, United Kingdom, (January 1999).

153. The major source of cargo is Dubai, United Arab Emirates, a cargo entrepot in the Gulf and where dhows are also built. This trade requires modest port facilities: a shallow-draft quay wall with, preferably, a wide apron to accommodate vehicles for direct discharge of cargo for onward delivery. The port authority responsible for the facilities is always of the landlord type. All cargo-handling operations are arranged for and carried-out for cargo owners or their agents who normally take delivery of their goods in person. In many cases an old, shallow-draft section of the port, is assigned to this trade. This is the case in the two modern container ports of Aden and Salalah.

154. The dhow trade often maintains a minimum of economic activity in areas affected by man-made disasters. For example, the economic activity in the port of Bosaso, Somalia is flourishing with imports from the dhow trade and has attracted people from the surrounding area resulting in a quadrupling of the population. Even livestock (e.g. camels and goats) are occasionally exported in dhows. During 2000, a total of 567 vessels called at this port and throughput reached 0.27 million tons. Enforcing international economic sanctions to countries may be difficult when dhows are involved in trade. Also the trade is prone to illegal activities such as smuggling.

155. Ports serving this trade often neglect providing the facilities and services required by it. Better sanitary facilities and increased security measures for the large numbers involved in the handling and clearance of cargo would improve operations and reduce losses to cargo. Some degree of port state control could also improve working conditions of seamen serving on the dhows.