

## Ports

9.64 Ports are a crucial part of the transportation infrastructure of the country. Transportation by ship is highly energy efficient, can be increasingly used for intra-India traffic, and for international trade. Inland water transport today accounts for only 0.15 per cent of domestic transportation, and there are opportunities for considerable growth. Intra-India shipping on the coastline and along rivers can become important alternatives in the Indian transportation scenario.

9.65 In 2003-04, cargo handled by major ports registered a 9.9 per cent increase, from 9.0 per cent in 2002-03. About 80 per cent of total volume of port traffic handled was in the form of dry and liquid bulk, while the remaining 20 per cent consisted of general cargo including containers. There has been an impressive growth of container traffic of over 15 per cent per annum over the last five years. The highest growth during 2003-04 was observed in respect of vegetable oil followed by iron ore, and containerized cargo (Table 9.16).

9.66 While container traffic has grown well in India, there is still a considerable lag when compared with the largest international ports. The largest port in the world in 2002, Hong Kong, processed 19.1 million Twenty-foot-equivalent units (TEUs). The 10<sup>th</sup> largest port, Antwerp, processed 4.8 million TEUs. In contrast, JNPT handled roughly 2 million TEUs in 2002-03.

9.67 At an administrative level, ports are divided into "major ports" (where the central government plays policy and regulatory functions) and "minor ports" (which are guided by state governments). As of today, the 12 major ports handle about 76 per cent of the traffic. They are Chennai, Cochin, Ennore, Jawaharlal Nehru, Kandla, Kolkata, Marmagao, Mumbai, New Mangalore, Paradip, Tuticorin and Visakhapatnam. There are 185 minor and intermediate ports. The minor ports are located in Gujarat (40), Maharashtra (53), Goa (5), Daman & Diu (2), Karnataka (9), Kerala (13), Lakshadweep (10), Tamil Nadu (14), Pondicherry (1), Andhra Pradesh (12), Orissa (2), West Bengal (1) and Andaman & Nicobar (23).

9.68 Minor ports constitute an important competitive alternative to the centrally regulated 'major ports'. A small subset of the 185 'minor ports' is well developed, with all-weather berthing facilities. Cargo handling operations are undertaken in about 61 ports while the remaining are restricted to fishing and passenger traffic. States with a coastline are increasingly emphasising modernisation of these minor ports. Gujarat, Maharashtra, Andhra Pradesh and Tamil Nadu have constituted Maritime Boards, which are autonomous regulatory bodies. This has given a certain degree of competition within the country between various styles of regulation (Central and State). The latter half of the 90's has witnessed the emergence of these minor ports as major players in cargo handling as is

**Table 9.16 : Trends in traffic at major ports**

	2001-02	2002-03	2003-04*	Change over previous year	
				2002-03	2003-04*
1	2	3	4	6	7
	(Million Tonnes)			Per cent	
1 P.O.L.	103.2	109.6	122.3	6.2	11.6
2 Iron ore	45.8	50.6	59.4	10.5	17.4
3 Fertiliser & raw materials	9.6	8.6	7.5	-10.4	-12.8
4 Food grains	3.9	8.5	6.8	117.9	-20.0
5 Coal	45.6	48.4	48.9	6.1	1.0
6 Vegetable oil	3.4	3.3	3.7	-2.9	21.1
7 Other liquids	8.1	8.7	8.7	7.4	0.0
8 Containerised cargo	37.2	43.7	51.0	17.5	16.0
9 Others	30.8	32.1	36.2	4.2	12.8
<b>Total</b>	<b>287.6</b>	<b>313.5</b>	<b>344.5</b>	<b>9.0</b>	<b>9.9</b>
* Provisional					
Source : Ministry of Shipping					

**Table 9.17 : Average turnaround time for major ports**

Sl. Name of the Port	Average pre-berthing time (hours) – on Port A/c			Average turnaround time (days) – on Port A/c		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
	1(a) Kolkata (Kolkata Dock Systems)	0.24	0.07	0.07	4.71	4.47
(b) Kolkata (Haldia Dock Complex)	3.84	3.60	3.43	4.01	3.02	2.84
2 Mumbai	7.68	3.60	4.64	5.47	5.06	4.07
3 Jawaharlal Nehru	10.08	11.76	8.24	4.34	2.28	1.85
4 Chennai	26.00	4.30	0.91	5.30	3.70	4.85
5 Cochin	4.20	1.67	4.02	2.37	2.19	2.22
6 Vizag	5.76	3.12	1.18	3.51	3.72	3.33
7 Kandla	21.36	16.80	11.06	6.55	5.94	5.06
8 Mormugao	32.16	19.92	26.71	2.04	1.94	4.47
9 Paradip	11.04	10.32	5.14	3.99	3.37	3.43
10 New Mangalore	5.99	4.41	3.07	2.73	2.37	2.35
11 Tuticorin	10.56	7.20	1.60	4.11	3.59	2.52
12 Ennore	9.98	1.56	1.66	3.62	2.22	2.11

Source: Ministry of Shipping.

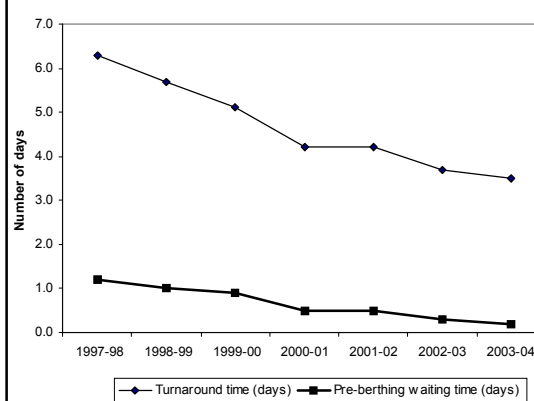
evidenced from their increasing share in cargo handled. Compared to traffic of 27.83 million tonnes in 1996-97 which accounted for about 10 per cent of total maritime traffic handled in the country's ports, it has increased phenomenally to about 108 million tonnes in 2003-04 accounting for about 24 per cent of the total maritime traffic in the country.

9.69 Through a series of path-breaking institutional innovations, India has obtained substantial progress in the major ports sector. The turnaround time came down further from 3.7 days in 2002-03 to 3.5 days in 2003-04. The average output per ship-berth-day went up from 8,455 tonnes in 2002-03 to 8,978 tonnes in 2003-04. The pre-berthing time at major ports dropped from 6.9 hours in 2002-03 to 5 hours in 2003-04 (Figure 9.2).

9.70 At the same time, there continues to be a high degree of cross-sectional

**Fig 9.2**

**Delays at ports**



heterogeneity between the performance characteristics of various ports (Table 9.18). The pre-berth waiting time at JNPT is a particularly important problem, given the fact

**Table 9.18 : Performance indicators of ports in India: for containers (2003-04) (Provisional)**

	JNPT	Chennai	Kandla	Kolkata
Average pre-berthing time on port account (hours)	8.44	0.68	1.98	0.08
Average turnaround (days)	1.62	1.36	2.18	3.03

Source: Ministry of Shipping

that JNPT accounts for over half of India's container traffic.

9.71 Box 9.3 shows the JNPT experience with bringing in specialised firms which operate port services. A series of similar contracts are either under negotiation or under implementation at many ports across the country. There is also a new phenomenon of private ports, such as Pipavav and Mundra.

9.72 Investments in the ports sector which continue to take place at a substantial scale will be further spurred by institutional reforms in coming years. As at present, 11 private or captive projects, with a capacity addition of about 38.2 MTPA and an investment of about Rs.2,053 crore have been completed/operationalised while 25 others with a capacity addition of around 85.3 MTPA and an investment of Rs. 5,479 crore are at various stages of evaluation and implementation.

**Box 9.3 : Jawaharlal Nehru Port Trust – P&O Australia Experience**

- Jawaharlal Nehru Port Trust, Navi Mumbai, signed an agreement with P&O Australia, for development of a two berth container terminal of 600 meter quay length on "Build, operate and transfer" (BOT) basis for a period of 30 years in July 1997. M/s P&O completed the project ahead of schedule and commenced operations in April 1999. the total investment on this project was about Rs. 900 crores. The new terminal was named as Nhava Sheva international Container Terminal (NSICT).
- The private terminal was expected to handle a minimum of 1.75 lakh (TEUs) of containers in the first year of operations, reaching a minimum of 5 lakh TEUs in the sixth year. However, NSICT surpassed this figure and handled 3.43 lakh TEUs of containers during the first year of operations (April 1999 to March 2000). The container traffic handled by NSICT during 2003-04 was 12.3 lakh TEUs compared to 12.01 TEUs in 2002-03.

9.73 A key area of future reform is the corporatisation of major ports in a phased manner, starting with JNPT. Their functioning today, which takes place under the Major Ports Trust Act (1963), has been inhibited by inflexibility in decision making. A pioneering effort in this area is the Ennore port, which has been registered under the Companies Act (1956).

9.74 The central focus of policy in the ports area must remain maximisation of intra-port and inter-port competition. We may be increasingly shifting towards a model where the port is a landlord, with multiple competing port operators in place within the port. As highlighted above, the ports sector already has significant heterogeneity in institutional mechanisms. Ennore is a major port under the Companies Act that operates in tandem with other major ports under the Major Ports Trust Act. Minor ports complement major ports, within which there are many differences between states. Multiple berths are run by various port operators. Some ports are private. This heterogeneity is a major strength of India's ports sector. It improves the extent to which policy innovations are attempted, and the learning that comes from varied experience.

9.75 In terms of technical parameters, the rate of progress in India's ports sector appears to be impressive. The All-India average turnaround time has dropped from 5.7 days in 1998-99 to 3.5 days in 2003-04. However, considerable effort is still needed in order to get up to world standards. Going beyond technical parameters is the question of cost. There is a need to continually benchmark Indian ports against the best ports worldwide, such as Colombo, Singapore or Hong Kong, and continue to engage in policy efforts so as to attain prices per container of port services which are the lowest in the world.