## Ports

9.74 Ports are a crucial part of the transportation infrastructure of the country. The international experience with economic development has emphasized the development that has taken place near the coast through "gains from trade".

9.75 India has around 6,000 km of natural peninsular coastline. There are 12 major ports and 185 minor ports. Ports in India are divided into "major ports" (a list of named 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 of the country handle about 75 per cent of the traffic. They are Chennai, Cochin, Ennore, Jawaharlal Nehru (Mumbai), Kandla, Kolkata, Mormugao, Mumbai, New Mangalore, Paradip, Tuticorin and Visakhapatnam. There are 185 minor ports, with a pronounced accent on the west coast. 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 and Nicobar Islands (23).

9.76 Ports are focal points of convergence for several contending and competing business interests namely, shipping lines, port authorities, individual terminal operators to freight forwarders, inland logistics agencies and shippers whose cargo is being transported. Transportation by ship is highly energy - efficient. It can be increasingly used for intra-India traffic, and it is obviously essential for international trade. There can be a further expansion of transportation by ship to include inland water transport (IWT). These alternatives - intra-India shipping on the coastline and along rivers - can become important new alternatives in the Indian transportation scenario. IWT today only accounts for 0.15 per cent of domestic transportation, and there are opportunities for considerable growth.

9.77 In 2004-05 (upto December, 2004), cargo handled by major ports registered a 10.9 per cent growth, compared with the 9.9 per cent growth seen in 2003-04. (Table 9.19).

			April-December		Change over previous year	
	2002-03	2003-04*	2003	2004	2003-04	2004-05@
		(Millio	on Tonnes)		(Per cen	t)
POL	109.6	122.2	88.1	90.9	11.5	3.2
Iron Ore	50.6	58.8	39.9	47.4	16.2	18.8
Fertiliser & raw materials	8.6	7.5	5.6	7.2	-12.8	28.6
Foodgrains	8.5	6.8	5.2	3.1	-20.0	-40.4
Coal	48.2	48.8	36.5	39.5	1.2	8.2
Vegetable oil	3.3	3.8	2.9	2.8	15.2	-3.4
Other liquids	8.7	8.9	6.7	7.6	2.3	13.4
Containerised cargo	43.7	51.0	37.4	40.9	16.7	9.4
Others	32.4	37.0	26.6	36.6	14.2	37.6
Total	313.6	344.8	248.9	276.0	9.9	10.9

Infrastructure

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 in the last few years with growth of over 15 per cent per annum during the five years up to 2003-04.

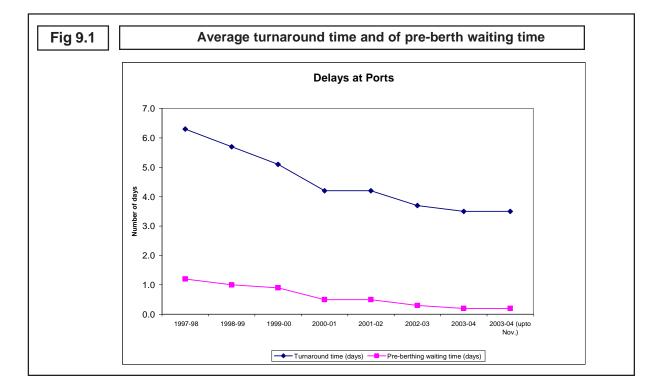
9.78 While container traffic has grown well in India, there is still a considerable lag when compared with the larger international ports. The largest port in the world in 2003, Hong Kong, processed 20.1 million TEUs (20-foot equivalent units). The 10<sup>th</sup> largest port, Antwerp, processed 5.4 million TEUs. In contrast, Jawaharlal Nehru Port (JNPT), India's largest container port, handled roughly 2 million TEUs in 2002-03 and 2.3 million TEUs in 2003-04.

9.79 The annual aggregate cargo handling capacity of major ports increased from 363.75 MMT to 389.50 MMT during 2003-04, and the average turnaround time came down further from 3.7 days in 2002-03 to 3.5 days in 2003-04 (Figure 9.1). The average output per shipberth-day went up from 8,455 tonnes in 2002-03 to 9,080 tonnes in 2003-04. The preberthing time at major ports on port account

dropped from 6.9 hours in 2002-03 to 4.9 hours in 2003-04. But wide variation in preberthing and turnaround times continue to persist (Table 9.20 and 9.21). A worrisome aspect of this data is the decline in performance of JNPT, India's most important container terminal. JNPT has experienced a worsening of both the average pre-berthing time and the average turnaround time.

9.80 The pre-berthing waiting time at JNPT is a particularly important problem, given the fact that JNPT accounts for over half of India's container traffic. The recent difficulties appear to have been primarily caused by the poor road and rail container evacuation infrastructure from the port to its hinterland.

9.81 In order to help strengthen its capacity, JNPT, has signed an agreement on August 10, 2004 with Gateway Terminals India Pvt. Ltd. for the development of the third container terminal which will result in addition of 1.3 million TEUs container handling capacity of the port. JNPT is also taking preparatory action for setting up a fourth container terminal. While increasing the throughput of JNPT by 1.3 million TEUs per year is useful, it will still not place JNPT in the ranks of the top 10 ports of the world.



SI.	Name of the Port	20 : Selected performance indicator Average pre-berthing time (hours) – on Port A/c			Average turnaround time (days) – on Port A/c		
		2002-03	2003-04	2004-05 (upto Dec.)	2002-03	2003-04	2004-05 upto Dec.)
1(a)	) Kolkata						
	(Kolkata Dock Systems)	0.07	0.07	0.00	4.47	4.29	2.69
(b)	Kolkata						
	(Haldia Dock Complex)	3.51	3.36	6.05	3.02	2.87	3.02
2	Mumbai	3.60	3.60	5.73	5.06	4.10	4.37
3	Jawaharlal Nehru	11.45	9.36	10.56	2.28	2.04	2.32
4	Chennai	1.30	0.90	0.90	3.70	4.60	3.90
5	Cochin	1.67	4 .04	4.69	2.19	2.22	2.54
6	Vizag	3.16	1.18	0.96	3.72	3.33	3.25
7	Kandla	16.80	10.80	15.60	5.94	5.06	4.65
8	Mormugao	19.92	26.64	30.23	3.86	4.47	4.71
9	Paradip	10.32	5.14	1.68	3.37	3.42	3.46
10	New Mangalore	4.32	3.12	3.12	1.90	2.35	2.90
11	Tuticorin	7.20	1.64	1.68	3.59	2.59	2.69
12	Ennore	1.56	1.66	0.24	2.24	1.94	1.60

Table 9.21 : Performance indicators of ports in India: for containers (2003-04) (Provisional)							
	JNPT	Chennai	Kandla	Kolkata			
Average pre-berthing time on port account (hours)	9.36	0.70	0.48	0.07			
Average turnaround (days)	1.84	1.40	1.11	3.04			
Source: Department of Shipping.							

9.82 Given JNPT's experience with bringing in specialized firms to operate port services, a series of similar contracts are either under negotiation or under implementation at many ports across the country (Box 9.7). This includes the award of contract for the third container terminal at Jawaharlal Nehru Port. The Government has also approved the award of contract for development, management and operation of the International Container Transhipment Terminal (ICTT), Vallarpadam at Cochin to Dubai Ports International, Dubai,

## Box 9.7 : 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 the schedule and
  commenced operations in April 1999. The total investment on this project was about Rs.900 crore.
  The new terminal was named as Nhava Sheva International Container Terminal (NSICT).
- The private terminal was expected to handle a minimum of 0.175 million twenty feet equivalent units (TEUs) of containers in the first year of operations, reaching a minimum of 0.5 million TEUs in the sixth year of operations. However, NSICT surpassed this figure and handled 0.342 million TEUs of containers during the first year of operations (April 1999 to March 2000). The container Traffic handled by NSICT during the last financial year (2003-04) was 1.23 million TEUs compared to 1.2 million TEUs in 2002-03.

Infrastructure

UAE on BOT basis and the License Agreement between Cochin Port Trust and the BOT operator has been signed.

9.83 Investments in the ports sector, which continue to take place on a substantial scale, will be further spurred by institutional reforms in the coming years. In the recent period, 13 private or captive projects with a annual capacity addition of about 47.40 MMT and an investment of about Rs.2,597 crore have been completed/operationalised, while 23 others with a annual capacity addition of around 89.29 MMT and an investment of Rs.7,108 crore are at various stages of evaluation and implementation.

9.84 The central focus of policy in the ports area must remain maximization of intra-port and inter-port competition. An increasing shift towards a model where the port is a landlord, and multiple port operators in place to compete within the port, may be the way forward. The ports sector already has significant heterogeneity in institutional mechanisms. There is Ennore (a major port under the Companies Act) operating in tandem with other major ports (under the Major Port Trusts Act). There are minor ports complementing major ports, within which there are further differences across States. There are multiple berths run by various port operators. There are private ports. 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 the varied experience that are continually in operation. At the same time, the recent experience with JNPT has highlighted the importance of modernising the rail and road connectivity between the port and the hinterland. Weaknesses in these aspects can significantly negate the benefits to the economy of investments in port infrastructure.