

CHAPTER 22

SHIPPING

22.1 The Maritime Sector in India comprises Ports, Shipping, Shipbuilding and Ship repair and Inland Water Transport Systems and the Ministry of Shipping is the nodal central agency administering the issues related to them.

22.2 India has a coastline of 7517 km with 13 Major Ports and about 200 minor ports along the coastline and Island. Major Ports are the ports which are administered by the Union Government, while Non-major Ports are administered by the State Governments. Major Ports in the country are – Kolkata (including Haldia Dock Complex), Paradip, Visakhapatnam, Ennore, Chennai, Tuticorin on the East Coast and Cochin, New Mangalore, Mormugao, Nhava Sheva (Jawaharlal Nehru Port), Mumbai and Kandla on the West Coast. Port Blair was declared as India's 13th Major Port with effect from June 1, 2010. The major ports carry bulk of the total traffic. Out of the 200 Non major ports, only some ports are well developed and provide all weather berthing facilities for cargo handling. In 2013-14, only 61 Non major ports were reported to have handled cargo traffic.

22.3 Traditionally, most ports in the world are owned by the Public Sectors. In the recent years privatization of ports facilities and services are gaining momentum. In India an enabling policy framework has been put in place by the Government as a step towards this direction and more and more Public Private partnership (PPP) ventures are coming up. Depending on the nature of the facilities/service, private operators can enter into the service contract, the management contract a concession agreement to operate port services. Areas that have been opened up to the private sectors on BOT basis include construction of CARGO handling berths and dry docks, container terminals and warehousing facilities and ship repair facilities.

22.4 The shipping services in India are patterned similar to the global shipping services, namely, tramps and liners. About 95 % of the country's EXIM merchandise trade by volume (70 % in terms of value) is moved by sea. The types of ships engaged in India's overseas trade include dry cargo liners, cellular container ships, dry cargo bulk carriers, ore/oil/bulk carriers, oil tankers (product carriers), passenger cum-cargo vessels, acid carriers, timer carriers, LPG carriers, etc. The shipping industry also caters to the requirements of coastal trade and offshore supply vessels (OSVs) for ONGC and GAIL. India has one of the largest merchant shipping fleet among the developing countries and is ranked 20th in the world. India's shipping industry is globally competitive in terms of financing and operating cost. If it has failed to grow commensurate to opportunity, it is mainly because competitors operate from tax free or low tax jurisdictions, while in India the opening up of the sector by rationalization of fiscal and regulatory policy is still an ongoing process.

22.5 Coastal Shipping : The development of coastal shipping assumes greater significance as the other land based modes of transport like rail and road transport are at their saturation point. Besides coastal shipping is also eco friendly , cost effective and energy efficient mode of transport.

22.6 Inland Waterways Authority of India (IWAI) : It was set up under IWAI Act, 1985 to optimally develop and harness the potential of Inland Waterways in the country . Presently, IWAI is operating three waterways (i) Allahabad Haldia stretch (1620 km) (ii) Sadiya Dhubri stretch (891 km) and (iii) Kollam Kottappuram stretch (168 km).

22.7 Shipping Corporation of India : The Shipping Corporation of India was established on October 2nd, 1961, by the amalgamation of Eastern Shipping corporation and Western Shipping Corporation. The status of the SCI changed from Private Limited Company to Public Limited Company with effect from 18th September, 1992.

22.8 Starting out as a marginal Liner shipping Company with just 19 vessels, the SCI has today evolved into the largest Indian shipping Company. SCI's owned fleet includes Bulk carriers, Crude oil tankers, Product tankers, Container vessels, Passenger-cum-Cargo vessels, Phosphoric Acid / Chemical carriers, LPG / Ammonia carriers and Offshore Supply Vessels. Sailing through for nearly five decades, the SCI today has a significant presence on the global maritime map. As the country's premier shipping line, the SCI owns and operates around one-third of the Indian tonnage, and has operating interests in practically all areas of the shipping business; servicing both national and international trades.

22.9 The government of India has conferred "Navratna" status to SCI on 01.08.2008 – enhanced autonomy and delegation of powers to the company towards capital expenditure, formation of joint ventures, mergers, etc. The numbers of ships owned by Shipping Corporation of India as on 31st December, 2013 were 85 with total GRT of 3459 thousand tonnes. Out of the 85 vessels, 15 were engaged in coastal trade and 70 were engaged in overseas trade. During the year 1999, the company had 101 vessels for overseas trade with a tonnage 2953 thousand tonnes. Over the last 14 years, the number of vessels has fallen by 31 but the tonnage has picked up from 2953 thousand tonnes in 1999 to 3358 thousand tonnes in 2013.

Distribution of Indian Tonnage as on 31.12.2012

Sr.No.	Name of the Company	Ships	G.T.	% of G.T.
1	The Shipping Corporation of India Ltd.	86	3395439	32.59
2	M/s Great Eastern Shipping Company Ltd.	35	1475509	14.16
3	M/s Essar Shipping & Logistics Ltd.	22	270268	2.59
4	M/s Mercator Lines Ltd.	18	566873	5.44
5	M/s Tolani Shipping Ltd.	10	382209	3.67
6	M/s Varun Shipping Company Ltd.	8	327111	3.14
7	M/s Sanmar Shipping Ltd.	6	190122	1.83

8	M/s Radiant Shipping Ltd.	4	90551	0.87
9	M/s Five Stars Bulk Carriers Ltd.	4	205881	1.98
10	M/s Chowgle Steamships Ltd.	3	67870	0.65
11	M/s West Asia Maritime Ltd.	3	70332	0.68
12	Others	955	3375303	32.40
Total		1154	10417468	100.00

Performance of Indian Shipping:

22.10 As on 31st December 2013, India had a fleet strength of 1199 vessels with gross registered tonnage (GRT) of 10.38 million, compared with fleet strength of 1154 vessels with 10.42 million GRT at the end of December, 2012. This reflects a net addition of 45 vessels with a decrease of 0.04 million GRT.

22.11 Out of the 1199 vessels registered as on 31st December, 2013, 835 vessels (69.6%) with 1.14 million GRT were engaged in coastal trade and the remaining 364 vessels (30.4%) with 9.25 million GRT were deployed for overseas trade. Thus the tonnage deployed for overseas trade was 89.1% of Total GRT in contrast to 10.9% of the tonnage deployed for coastal trade.

22.12 The age profile of Indian merchant shipping vessels indicates that 39.1% of the fleet was above 20 years of age, 25.7% of the fleet was between 0-5 years, and the remaining were spread almost equally across the age groups of 6-10 years, 11-15 years and 16-20 years.

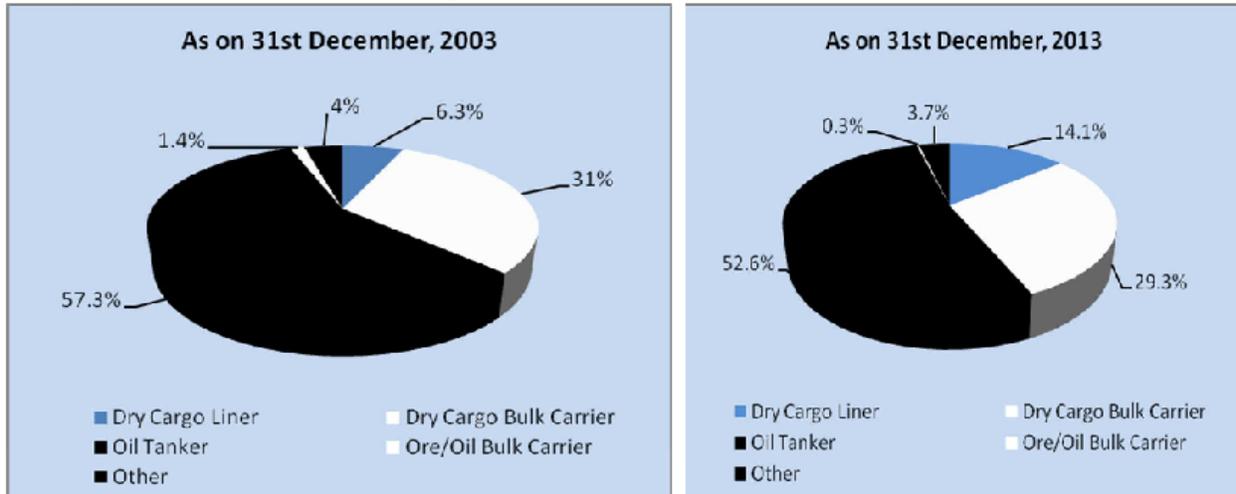
Age Composition of Indian Shipping Fleet as on 31.12.2013						
Category	0-5 years	6-10 years	11-15 years	16-20 years	Above 20 years	Total
Coastal	184 (22.0)	98 (11.7)	103 (12.3)	94 (11.3)	356 (42.7)	835(100.0)
Overseas	124 (34.1)	54 (14.8)	36 (9.9)	37 (10.2)	113 (31.0)	364 (100.0)
Total	308 (25.7)	152 (12.7)	139 (11.6)	131 (10.9)	469 (39.1)	1199 (100.0)
Figures within parenthesis represent percent share of fleet to the total fleet given row wise.						

Fleet Composition

22.13 An analysis of the fleet classified by the type of vessels in 2013 indicates that the maximum number of vessels (679) were Dry Cargo Liners followed by Oil tankers (137). In terms of GRT, the fleet composition reveals that the maximum tonnage 5457 thousand tonnes (52.6% of the total tonnage) was in the category of Oil Tankers whereas Dry Cargo Liners (which accounted for highest number of vessels (679))

contributed a mere 14.1% (1468 thousand tonnes) to India's total tonnage. The change in the composition of Indian tonnage in terms of type of vessels in the last decade (2003 through 2013) is presented below

Composition of Indian Tonnage



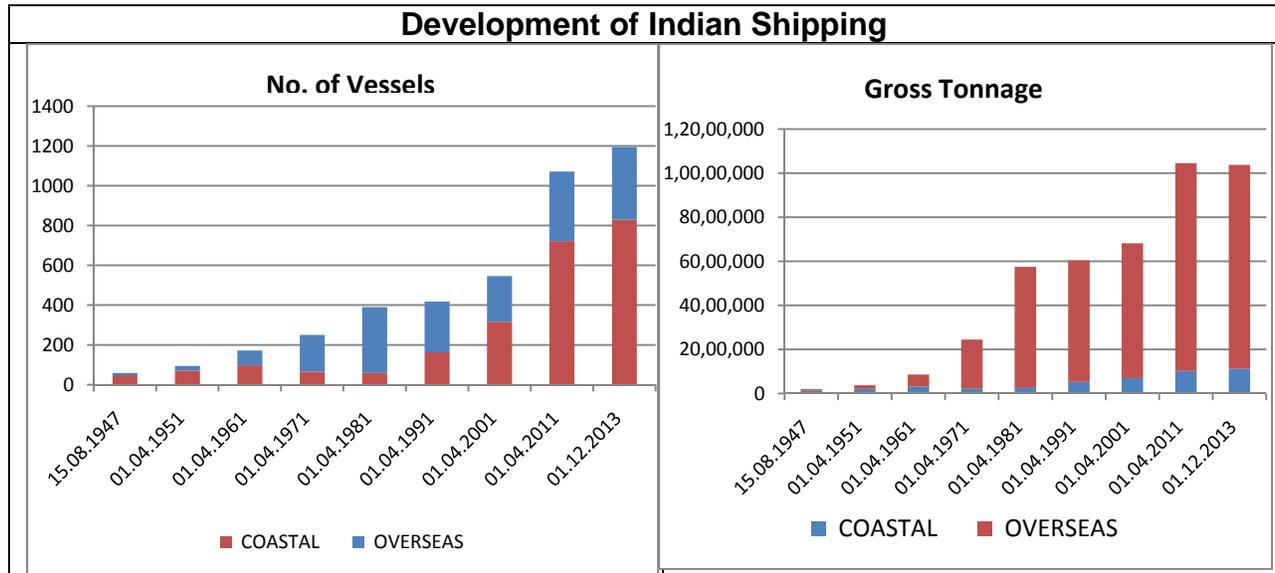
22.14 The composition of India's tonnage reveals that tonnage share of oil tanker has decreased from 57.3% in 2003 to 52.6 % in 2013. Also, the tonnage share of dry cargo Bulk carriers has dropped from 31% in 2003 to 29.3% in 2013. Similarly, over the same period of time the tonnage share of Dry cargo Liner has increased from 6.3% to 14.1%.

22.15 Traffic Carried : Though total overseas traffic cargo handled at Indian ports increased about threefold from 278 million tonnes in 2001-02 to 772 million tonnes in 2012-13 , share of Indian lines was decreased from about 17% to 9 % during the period.

22.16 Overseas Trade : As on 31st December, 2013, 364 Indian registered vessels of 9.25 million GRT were deployed on overseas trade. Among the 364 vessels for overseas trade, the maximum number of vessels (124) was of the age upto 5 years with GRT of 2.85 million tonnes. The size of maximum number of vessels (96) was between 1000 and 4999 GRT. The total GRT of these 96 vessels was 0.24 million tonnes. About 36.8% of the vessels (134) undertaking overseas trade were in the category of Dry Cargo Liner whose carrying capacity was 0.97 million tonnes. It has been observed that there are 71 companies with single ship deployed on overseas route with a total GRT of 0.69 million tonnes. In Overseas trade, the Shipping Corporation of India was the largest Indian shipping company which had 70 vessels comprising of around 3.4 million GRT followed by Great Eastern Shipping Co Ltd which had 32 vessels with 1.4 million GRT.

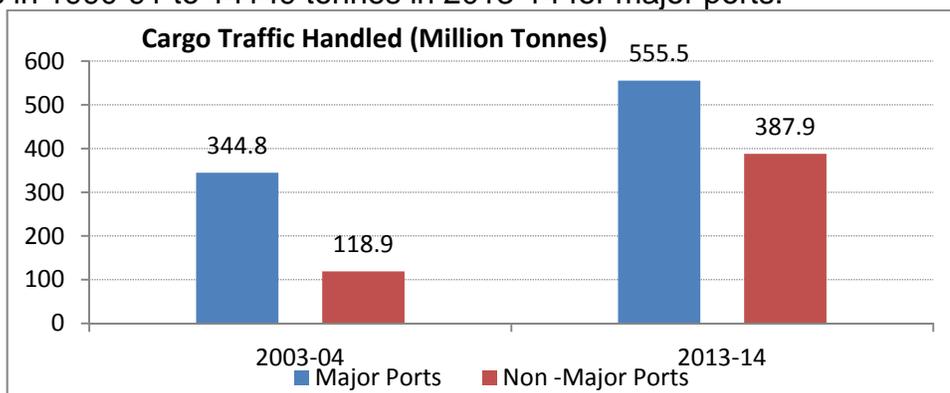
22.17 Coastal Trade : Out of the 1199 vessels as on 31st December, 2013, 835 vessels(69.6 %) were engaged in coastal trade with a GRT of 1.14 million tonnes (1135 thousand tonnes). The modal age of Coastal vessels (356) was above 20 years

representing a tonnage of 665 thousand tonnes. There are 149 companies with single ship deployed on coastal routes representing a total GRT of about 0.28 million tonnes.



22.18 Major & Non Major Ports : India's major ports handled 57 % of the cargo handled at Indian Ports during 2013-14 though the share has declined from about three fourth over a decade ago. The traffic handled by the major ports has recorded nearly threefold increase from 195.9 million tonnes in 1994-95 to 555.5 in 2013-14 . Cargo handling capacity at major ports has also risen with traffic , from 174 million tonnes at end of 1994-95 to 800.52 million tonnes at the end of 2013-14 .

22.19 The average overall pre berthing detention time for all major ports had declined from 2.2 days in 1990-91 to 1.63 days in 2008-09 and the same dropped to 1.79 days in 2012-13 after having risen over 2 during 2009-10 & 2010-11. Average Turn Round Time (TRT) has improved significantly during the past one and half decade for all major ports. Average TRT for all major ports improved from 8.10 days in 1990-91 to 3.63 days in 2005-06 . Thereafter the TRT has steadily increased to 5.29 days in 2010-11. In 2012-13, the average TRT declined to 4.29 days and further to 3.87 days in 2013-14. Average Output per Ship Berth- day has increased more than four times from 3,372 tonnes in 1990-91 to 14149 tonnes in 2013-14 for major ports.



Traffic Handled at Major Ports since 2006-07 is as under:

PORT	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
KOLKATA	12.60	13.74	12.43	13.05	12.54	12.23	11.84
HALDIA	42.46	43.59	41.79	33.38	35.01	31.01	28.08
PARADIP	38.52	42.44	46.41	57.01	56.03	54.25	56.55
VIZAG	56.39	64.60	63.91	65.50	68.04	67.42	59.04
ENNORE	10.71	11.56	11.50	10.70	11.01	14.96	17.89
CHENNAI	53.41	57.15	57.49	61.06	61.46	55.71	53.40
TUTICORIN	18.00	21.48	22.01	23.79	25.72	28.11	28.26
COCHIN	15.26	15.81	15.23	17.43	17.87	20.09	19.85
NMPT	32.04	36.02	36.69	35.53	31.55	32.94	37.04
MORMUGAO	34.24	35.13	41.68	48.85	50.02	39.00	17.69
MUMBAI	52.36	57.04	51.88	54.54	54.58	56.18	58.04
JNPT	44.82	55.84	57.29	60.76	64.31	65.75	64.49
KANDLA	52.98	64.92	72.23	79.50	81.88	82.50	93.62
TOTAL	463.78	519.31	530.53	561.09	570.03	560.15	545.79

22.20 The total cargo moved on three National waterways has shown four-fold increase over the period 2001-02 to 2012-13 , from 16.2 lakh tonnes in 2001-02 to 63.8 lakh tonnes in 2012-13.

22.21 Data Source :

- **Transport Research Wing (TRW), Ministry of Shipping**, is the nodal agency inter-alia for collection, compilation and publication of data on Indian Ports. The data is disseminated through the annual publication titled 'Basic Port Statistics (BPS)'. The publication contains port-wise data on commodity-wise cargo traffic, container traffic, performance indicators, port capacity and utilization, passenger traffic, employment, financial performance, plan expenditure for Major Ports, etc. Besides the BPS , the TRW also brings out bi-annual update on Indian Port Sector , which provides data/information on the latest developments in the Indian Port Sector .
- **Indian Ports Association (IPA)** disseminates Major Port-wise data on cargo traffic and performance indicators on a monthly basis. IPA also publishes data on

cargo traffic, vessel traffic, physical and financial performance indicators in their annual publication namely 'Major Ports of India - A Profile'.

- Major Port's statistics are being published by Major Ports in their Administrative Reports. These reports, as per statutory requirement, are placed in the Parliament.
- The source for the statistics of cargo movements in the foreign trade and coastal trade are from the Central Customs and Excise authorities at the Indian Sea ports. For the purpose of registration of shipping in foreign trade, the Indian sea ports were grouped originally into five Custom Zones namely West Bengal, Madras, Cochin, Bombay and Baroda. The registration of movements in shipping in the foreign trade relates to entrances and clearance with cargo i.e. vessels which arrive at ports in India for the purpose of discharging cargo from abroad or which depart from a port in India after loading cargo for discharge at a destination abroad. Vessels bringing cargo from more than one foreign port are recorded as entering from the most distant port at which cargo for India was embarked. Vessels with cargo departing from India for more than one foreign port are recorded as clearing for the most distant port at which cargo from India was disembarked. The Shipping Statistics in foreign trade relate to number and tonnage of vessels which entered and cleared with cargoes classified by custom zones, nationalities and port of call.

22.22 Compilation of Index of Port Services : In view of the requirement for short term indicators, Government had decided to compile Service Sector Indices. Ports services were one of the sectors for which indices were proposed to be developed. To measure the dynamics of production and cost of services, it was desirable to have **Index of Service Production (ISP)** whereas change in the price of services for consumer can be measured by **Consumer Service Prices Index (CSPI)** and change in cost of producing the service by major ports can be measured by **Producers Price Index (PPI)**.

22.23 Parameters and Indicators for Inter-Port Comparison: Following parameters are usually considered while making inter port comparisons ;

Physical Parameters/Indicators

- (ii) Average Pre-Berthing Waiting Time
- (ii) Average Ship Berth-Day Output
- (iii) Average Turn Round Time excluding Navigation Time
- (iv) Percentage of Non-Working time to Stay at Working Berth. Etc.

Financial indicators

- (i) Return on Capital Employed
 - a. Operating Surplus to Net Operating Assets
 - b. Net Income to Total Capital Employed
- (ii) Current Ratio
- (iii) Asset Turnover Ratio
- (iv) Management & General Administration Expenditure to Operating Expenditure
- (v) Percentage of Salaries and Wages to total Operating Expenditure. Etc

22.24 Concepts & Definitions :

- **Turn Round Time (TRT)** : TRT is the total time spent by a vessel at the port from its arrival at reporting station till its departure from the reporting station. It thus includes preberthing waiting time, navigation time (inward movement and outward movement time), stay at working and non-working berths and shifting time. However, the detention/idle time due to litigation, fire, repair/dry docking, delay in the decision regarding dismantling, etc. is not to be included.
- **Pre-Berthing Waiting Time:** This is the time taken by a ship from its arrival at the anchorage and report to the reporting station till it arrives at the operational berth excluding time taken for inward movement.
- **Dwell Time:** Dwell Time of cargo/ container is the time for which cargo / container remains in a terminal's in-transit storage area while awaiting shipment to vessels in case of export or evacuation by rail/road in case of import. Dwell time for import cargo is time between time and date of discharge of last tonnage of vessel till last tonnage of cargo is loaded from the port. For Export cargo, it is time and date of first arrival of cargo till the first tonne of loading on the vessel.

22.25 Challenges before Indian ports : Despite advances in recent years and despite adequate capacity and handling facilities at Indian ports , the average turnaround time dwell time etc in case of Indian ports is much higher. Viz TRT in case of India is 3.87 days compared to the average turnaround time of about 10 hrs in Hong Kong. Similar is the case with some other performance indicators like Crane Productivity , Container Evacuation Rate etc when compared to world class port like Singapore , Rotterdam etc.

22.26 This undermines the competitiveness of Indian ports. Since the ports are not adequately linked to the hinterland, the evacuation of CARGO is slow leading to congestion. To this end, all ports trust have set up groups with representatives from the National Highway Authority of India(NHAI), Railways and State Governments to prepare comprehensive plans aimed at improving road-rail connectivity of ports. The NHAI has taken up port connectivity as major component of the National Highways Development Project (NHDP).

References :

- Indian Shipping Statistics 2013, Ministry of Shipping
- Report of Working Group , Ministry of Shipping
- Website of Ministry of Shipping.