

भारत के पत्तन क्षेत्र का अद्यतन
UPDATE ON INDIAN PORT SECTOR
(31.03.2017)



परिवहन अनुसंधान प्रभाग
TRANSPORT RESEARCH WING
पोत परिवहन मंत्रालय
MINISTRY OF SHIPPING
भारत सरकार
GOVERNMENT OF INDIA
नई दिल्ली
NEW DELHI



PREFACE

As per the decision of the Maritime State Development Council (MSDC), the Transport Research Wing in the Ministry of Shipping has been bringing out the biannual publication "**Update on Indian Port Sector**". Present issue (**upto March, 2017**) is twenty-ninth in the series of this publication. The last issue contained data up to September, 2016.

The current issue of the "**Update on Indian Port Sector**" includes the information on the performance of Major and Non-Major Ports for the period up to end of March, 2017. The list of private sector/ captive/ joint sector port projects under implementation/ consideration at Major Ports and Non-Major Ports have also been included. The cooperation extended by the concerned source authorities is gratefully acknowledged.


(Ravikant)

New Delhi
August, 2017

UPDATE ON INDIAN PORT SECTOR

(UP TO 31.03.2017)

C O N T E N T S

Section No.	Subject	Page No.
1	India's position in World Economy and Recent Trends in Cargo Traffic and Policy Initiatives	1-30
2	Policy and Performance of Maritime States	31-41
3	Performance Indicators of Major Ports	42-47
4	Private Sector/Captive/Joint Sector Port Projects	48-64
ANNEXURES		
I	Plan Outlay and Expenditure – Port Sector (Central Sector)	65
II	Commodity-wise Traffic Handled at Major Ports	66
III	Commodity Composition of Traffic Handled at Non-Major Ports	67
IV	Commodity-wise Capacity of Major Ports	68

Officers associated with this publication

Mr. M.M. Hasija
Adviser (Statistics)

Mr. Santosh Kumar Gupta
Deputy Director

Mr. Jagdish Chand
Senior Statistical Officer

Mrs. Savita Mittal
Economic Officer

Mr. Gopal Yadav
Junior Statistical Officer

1. RECENT TRENDS IN CARGO TRAFFIC AND POLICY INITIATIVES

1.1 INDIA AND WORLD ECONOMY

1.1.1 Global economic activity is picking up with a long awaited cyclical recovery in investment, manufacturing, and trade. World growth is expected to rise from 3.1 percent in 2016 to 3.5 percent in 2017 and 3.6 percent in 2018, slightly above the October 2016 World Economic Outlook (WEO) forecast. Stronger activity and expectations of more robust global demand, coupled with agreed restrictions on oil supply, have helped commodity prices recover from their troughs in early 2016. Higher commodity prices have provided some relief to commodity exporters and helped lift global headline inflation and reduce deflationary pressures. Financial markets are buoyant and expect continued policy support in China and fiscal expansion and deregulation in the United States.

1.1.2 In the medium term, however these are structural impediments to a stronger recovery and a balance of risks that remains tilted to the downside. Structural problems – such as low productivity growth and high income inequality – are likely to persist. Inward-looking policies threaten global economic integration and the cooperative global economic order, which have served the world economy, especially emerging market and developing economies, well. A faster-than-expected pace of interest rate hikes in the United States could tighten financial conditions elsewhere, with potential further U.S. dollar appreciation straining emerging market economies with exchange rate pegs to the dollar or with material balance sheet mismatches. More generally, a reversal in market sentiment and confidence could tighten financial conditions and exacerbate existing vulnerabilities in a number of emerging market economies, including China – which faces the daunting challenge of reducing its reliance on credit growth. A dilution of financial regulation may lead to stronger near-term growth but may imperil global financial stability and raise the risk of costly financial crisis down the road. In addition, the threat of deepening geopolitical tensions persists, especially in the Middle East and North Africa.

1.1.3 Economic activity gained some momentum in the second half of 2016, especially in advanced economies. Growth picked up in the United States as firms grew more confident about future demand, and inventories started contributing positively to growth (after five quarters of drag). Growth also remained solid in the United Kingdom, where spending proved resilient in the aftermath of the June 2016 referendum in favor of leaving the European Union (Brexit). Activity surprised on the upside in Japan thanks to strong net exports, as well as in euro area countries, such as Germany and Spain, as a result of strong domestic demand.

1.1.4 Economic performance across emerging market and developing economies has remained mixed. Whereas China's growth remained strong, reflecting continued policy support, activity has slowed in India because of the impact of the currency exchange initiative, as well as in Brazil, which has been mired in a deep recession. Activity remained weak in fuel and nonfuel commodity exporters more generally, while geopolitical factors held back growth in parts of the Middle East and Turkey.

1.1.5 The world economy gained speed in the fourth quarter of 2016 and the momentum is expected to persist. Global growth is projected to increase from an estimated 3.1 percent in 2016 to 3.5 percent in 2017 and 3.6 percent in 2018. Activity is projected to pick up markedly in emerging market and developing economies because conditions in commodity exporters experiencing macroeconomic strains are gradually expected to improve, supported by the partial recovery in commodity prices, while growth is projected to remain strong in China and many other commodity importers. In advanced economies, the pickup is primarily driven by higher projected growth in the United States, where activity was held back in 2016 by inventory adjustment and weak investment.

1.1.6 **Table 1** gives the growth of cargo at Indian ports and related parameters of Indian and world trade.

Table 1: Growth in Cargo handled at Indian Ports and related parameters (in %)							
Parameters	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Trends in India's Select : Macro Parameters							
I. Total Cargo	4.2	3.2	2.2	4.1	8.2	1.9	5.7
(a) Major Ports	1.6	-1.7	-2.6	1.8	4.7	4.3	6.8
(b) Non Major Ports	9.1	12.2	9.7	7.5	12.9	-1.0	4.2
II.GVA overall	n.a	n.a	n.a	6.6	6.0	7.9	6.6
(a) Agriculture	n.a	n.a	n.a	3.7	1.7	0.7	4.9
(b) Industry	n.a	n.a	n.a	4.5	4.5	8.8	5.6
(c) Services	n.a	n.a	n.a	9.1	8.4	9.7	7.7
III. Foreign Trade							
(a) Export in \$ value	40.5	21.8	-1.8	4.7	-1.2	-15.9	4.7
(b) Import in \$ value	28.2	32.3	0.3	-8.3	-0.6	-15.3	-0.2
Trends in Select : Global Indicators							
IV. World Output	5.4	4.2	3.5	3.3	3.4	3.1	3.5
(a) Advanced Economies	3.1	1.7	1.2	1.2	2.1	1.7	2.0
(b) Developing Economies	7.4	6.3	5.3	4.9	4.2	4.1	4.5
V. World Economic Growth	4.1	2.8	2.2	2.2	2.5	2.5	2.3
(a) Advanced Economies	2.6	1.4	1.1	1.1	1.7	2.0	1.6
(b) Developing Economies	7.9	6.0	4.7	4.6	4.4	3.9	3.8
(c) Transition Economies	4.5	4.7	3.3	2.0	0.9	-2.8	0.0
VI. World Trade Volume (Goods)	14.3	6.9	2.5	3.1	2.7	2.2	3.8
VII. Export Volume growth (Goods)							
(a) Advanced Economies	14.7	6.0	1.9	2.6	3.7	2.1	3.5
(b) Developing Economies	14.8	8.1	4.2	4.3	1.4	2.5	3.6
VIII. Import Volume (Goods)							
(a) Advanced Economies	13.1	5.3	0.3	1.8	4.4	2.4	4.0
(b) Developing Economies	15.3	10.5	5.4	4.8	-0.8	1.9	4.5
IX. World Seaborne Trade*	7.4	4.3	4.6	3.4	3.5	2.0	N. A.
(a) Goods Loaded	7.0	4.5	4.7	3.4	3.4	2.1	N. A.
(b) Goods Unloaded	7.8	4.2	4.4	3.4	3.5	2.0	N. A.
I. Based on data from Major Ports and Non Major Ports							
II. Figures - 2014-15 onwards based on Press Release of Gross Value Added (GVA) at Factor Cost (2011-12 Prices), Central Statistical Office, dated 31.05.2017. Comparable figures for the back series are not available.							
III. Based on Department of Commerce, DGCI&S and RBI Bulletin							
IV, VI, VII & VIII Based on World Economic Outlook, April, 2017, IMF;							
V & IX. Based on Review of Maritime Transport, 2016 (November), UNCTAD							
Note : MT: Million Tonnes; For item Nos IV, VI, VII & VIII year 2009-10 refers to calendar year 2009 and so on; F refers to forecast for 2016 and f refers to forecast for the year 2017;							
* growth in total goods loaded plus unloaded; NA ; Not Available (P) Provisional							

1.1.7 Compared to most other major developing countries, India is well positioned to withstand near-term headwinds and volatility in global financial markets due to reduced external vulnerabilities, a strengthening domestic business cycle, and a supportive policy environment. The Economic Survey, 2016 has projected a wide band of 7 - 7.75 per cent growth in 2016-17, boosted by normal monsoon projection. It had, however, cautioned that with the global slowdown likely to persist, chances of India's growth rate in 2016-17 increasing significantly beyond 2015-16 levels were not very high.

Selected Emerging Trends Affecting Seaborne Trade

1.1.8 Maritime transport is the backbone of globalization and lies at the heart of cross-border transport networks that support supply chains and enable international trade. An economic sector in its own right that generates employment, income and revenue, transport – including maritime transport – is cross-cutting and permeates other sectors and activities. Maritime transport enables industrial development by supporting manufacturing growth; bringing together consumers and intermediate and capital goods industries; and promoting regional economic and trade integration. From shipbuilding to cargo routes to the future of seafaring, the maritime sector continues to evolve in response to economic, political, demographic, and technological trends. Understanding these trends is critical to improving the performance of the industry's capital investment as well as operational efficiency, and provides the backdrop for successful long-term maritime trade strategy.

1.1.9 In 2015, the World Seaborne Trade volumes are estimated to have accounted for over 80 per cent of total world merchandise trade. In 2015 – for the first time in UNCTAD records, the World Seaborne Trade volumes were estimated to have exceeded 10 billion tonnes. However, shipments expanded by 2.1 per cent, a pace notably slower than the historical average and below rates recorded over the last decade, when volumes were lifted by strong import demand from China. Individual performances varied by country and across market segments, with tanker trade performing relatively better than any other sector.

Table 2 : Developments in International Seaborne Trade				
(Million Tonnes Loaded)				
Year	Oil	Main Bulk#	Other Dry Cargo	Total
2000	2163	1295	2526	5984
2006	2698	1814	3188	7700
2007	2747	1953	3334	8034
2008	2742	2065	3422	8229
2009	2642	2085	3131	7858
2010	2772	2335	3302	8409
2011	2794	2486	3505	8784
2012	2841	2742	3614	9197
2013	2829	2923	3762	9514
2014	2825	2985	4033	9843
2015	2947	2951	4150	10047
# iron ore, grain, coal, bauxite/alumina and phosphate rock				
Source: Review of Maritime Transport, 2016, UNCTAD				

1.1.10 In 2015, dry cargo shipments accounted for 70.7 per cent of total seaborne trade volumes, while the remaining share was made up of tanker trade, including crude oil, petroleum products and gas (**tables 2**). Also in 2015, volumes increased by 1.6 per cent, down from 4.1 per cent in 2014. Growth in world seaborne trade by tonne–miles – providing a more accurate measure of demand for ship-carrying capacity, as it takes into account distances travelled – also decelerated; world seaborne trade totaled an estimated 53.6 billion ton–miles, up from an estimated 52.7 billion tonne–miles in 2014.

1.1.11 Developing countries continued to contribute larger shares to the total volumes of international seaborne trade. Their contribution with regard to global goods loaded is estimated at 60 per cent, and their import demand as measured by the volume of goods unloaded increased, reaching 62 per cent. Developing countries remained key world importers and exporters in 2015 and have consolidated their position as suppliers of raw materials, while also strengthening their position as large sources of consumer demand and main players in globalized manufacturing processes.

1.1.12 While, a slowdown in China is bad news for shipping, other countries have the potential to drive further growth. South–South trade is gaining momentum, and planned initiatives

such as the One Belt, One Road Initiative and the Partnership for Quality Infrastructure, as well as the expanded Panama Canal and Suez Canal, all have the potential to affect seaborne trade, reshape world shipping networks and generate business opportunities. In parallel, trends such as the fourth industrial revolution, big data and electronic commerce are unfolding, and entail both challenges and opportunities for countries and maritime transport.

Crude Oil and Petroleum products

Crude Oil

1.1.13 In 2015, oil remained the leading fuel, accounting for one third of global energy consumption. Global oil consumption was supported by demand among members of the Organization for Economic Cooperation and Development, in particular the United States and the European Union, and also partly sustained by China and India, where oil consumption expanded by 6.3 per cent and 8.1 per cent, respectively (British Petroleum, 2016). Global oil production expanded at a faster pace, resulting in continued downward pressure on oil prices. Underpinned by these developments, global crude oil trade reversed the 2014 trend and expanded by 3.8 per cent in 2015, with total volumes reaching an estimated 1.77 billion tonnes.

Global seaborne oil trade expanded faster than underlying oil demand, suggesting that end-user oil demand was not the only factor at play. Ample oil supply, low oil price levels, additions to refinery capacity, improved refinery margins and stock-building activity all contributed to the rise in crude oil volumes, which in turn led to infrastructure bottlenecks, delays and greater demand for oil storage. Lower oil prices and improved refinery margins supported imports into Europe, as well as shipments within the region and from both Western Africa and Western Asia. Crude oil imports into China accounted for about half the growth, as volumes increased by an estimated 9.3 percent (Clarksons Research, 2016). Together, growing refinery throughput in China, the need to fill the country's strategic petroleum reserve and liberalization of the market, allowing a number of independent refineries to either import crude oil or refine imported volumes, boosted China's oil demand and crude oil imports. India – the third largest importer of crude oil after the United States and China – increased its imports, while increasingly diversifying sources of supply, including Latin America and Western Africa (Tusiani, 2016).

Refined Petroleum products

1.1.14 Trade in petroleum products and gas increased by 5.1 per cent in 2015, reaching a total volume of 1.17 billion tonnes. However, estimates, for example by Clarksons Research, indicate that trade increased in petroleum products by 6.2 per cent, to above 1 billion tonnes, and in gas by 3.5 per cent, to 328 million tonnes. Import demand in Asia, as well as strong demand in Australia resulting from the closure of some refineries in 2014 and 2015, helped support trade. Import growth was also fuelled by strong import demand in India, driven largely by the removal of diesel subsidies in late 2014. Imports in Europe also increased on the back of lower oil price levels, which supported growth in refinery throughputs and intra- European trade. In parallel, and in addition to end-user demand, lower oil price levels triggered greater trading activity and generated arbitrage opportunities, further supporting trade in petroleum products. With regard to cargo types, strong demand for gas and transportation fuels, as well as storage activity with regard to diesel, supported demand for petroleum products. With regard to supply, increased refinery throughput resulting from the availability of domestic crude oil boosted export volumes from the United States, while growing refinery capacity in Western Asia, in particular in Saudi Arabia, supported export volumes from the region.

Natural Gas and liquefied gases

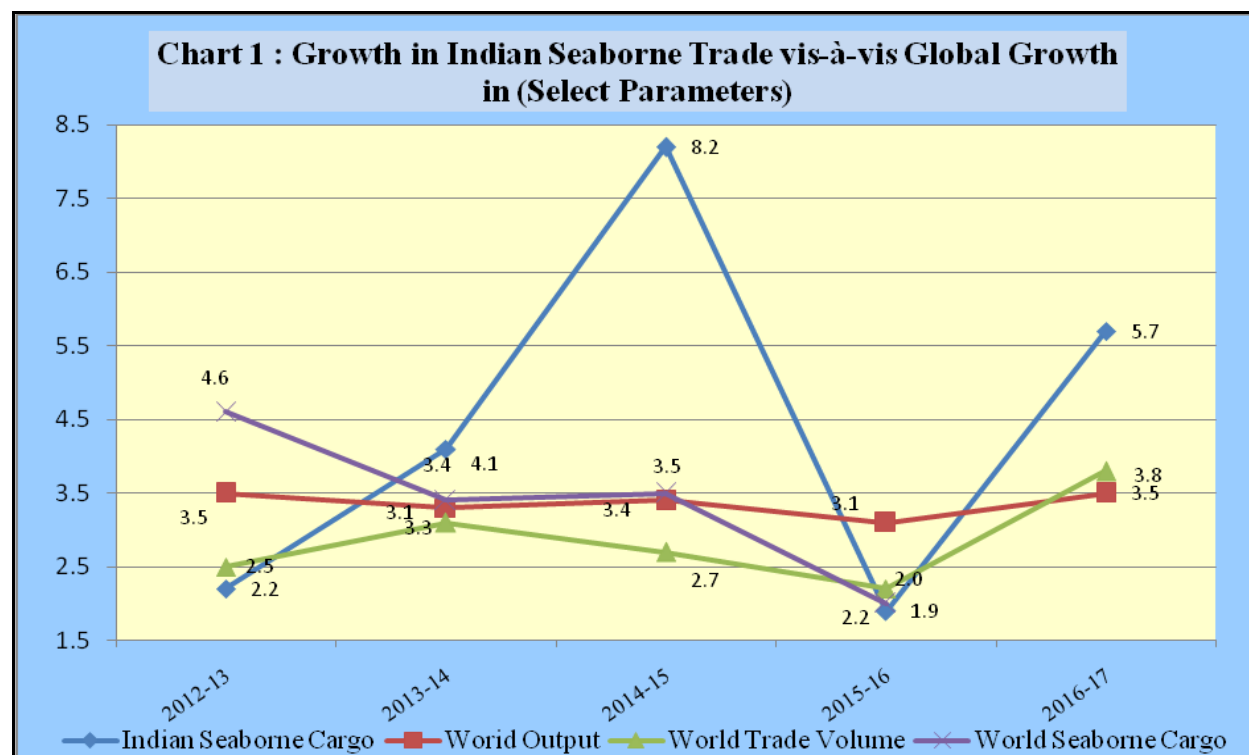
1.1.15 Global natural gas trade carried by sea in liquefied form, which accounted for nearly one third of world natural gas trade in 2015, expanded by 1.6 per cent, down from 2.5 per cent in 2014. Total volumes reached 338.3 billion cubic metres (British Petroleum, 2016). Export growth was driven by growing shipments from Australia, Indonesia, Malaysia, Papua New Guinea and Qatar, among others. Rising import demand in Europe and Western Asia helped partly offset volume declines in some key liquid natural gas importing countries such as Japan. The largest importer, Japan reduced its imports, possibly owing to a mild winter, reduced coal prices and the restart of two nuclear reactors in 2015 (World Nuclear Association, 2016).

The Republic of Korea, the second largest importer, also reduced its imports by 15 per cent (British Petroleum, 2016). Imports into China fell by 3.3 per cent due to the economic slowdown, a mild winter and expansion of the country's domestic gas production. In addition, although starting from a low base, liquefied natural gas imports to the United States increased by over 50 per cent, while exports increased eightfold (British Petroleum, 2016). In 2015, the high cost of onshore import facilities resulted in the use of alternative and new solutions, including the use of re-gasification

equipment on board ships, liquid natural gas re-gasification carriers as mobile import terminals and floating storage and re-gasification units (Clarksons Research, 2016). In July 2015, 19 countries were reported to be exporting liquid natural gas, and 16 countries are reported to have started importing liquid natural gas over the past 10 years (Clarksons Research, 2015). Trade in liquefied petroleum gas, which competes with naphtha for use as a feedstock in the petrochemical sector, is estimated to have expanded by 8.3 per cent in 2015, owing to continued export growth in the United States and rising demand in the petrochemical and household sectors in Asia, notably in China and India.

1.2 India: Seaborne Cargo Traffic

The growth in India's Port traffic and growth in World output, export volume and seaborne trade (loadings and unloading) since 2012-13 is given in **Chart I**. The growth of Indian seaborne cargo reached to 8.2% in 2014-15 but afterwards the growth was down to 1.9% in 2015-16 and again it recrded to positive growth to 5.7% in 2016-17.



1.3 Cargo Traffic at Indian Ports

1.3.1 During 2016-17, Major and Non-major Ports in India have accomplished a total cargo throughput of 1133.09 million tonnes reflecting an increase of 5.7% over the corresponding period of the previous year 2015-16 (Table 3). The growth in cargo handled at Major and Non-major ports in 2016-17, were 6.8 and 4.2% respectively. The share of Major Port in the total traffic handled at Indian Port increased from 56.5% in 2015-16 to 57.2% in 2016-17. Trend in traffic handled at Major and Non-major Ports is given below in **Table 3**.

Table 3- Traffic Handled at Indian Ports						
	(Million Tonnes)					
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17(P)
Major Ports	560.19	545.84	555.49	581.34	606.47	647.76
	-0.2	-2.6	1.8	4.7	4.3	6.8
Non-Major Ports	353.74	387.93	416.97	470.89	465.99	485.33
	22.4	9.7	7.5	12.9	-1.0	4.2
All Ports	913.93	933.77	972.46	1052.23	1072.46	1133.09
	7.5	2.2	4.1	8.2	1.9	5.7

Note: Figures in brackets indicate growth over previous year.

1.4 Cargo Traffic at Major Ports

1.4.1 The volume of seaborne cargo traffic handled by ports is mainly shaped by the levels and changes in both the global and domestic activity. Cargo traffic at India's 12 major ports during 2016-17 was 647.76 million tonnes achieving growth of 6.8% over the previous year.

1.4.2 During 2016-17, Mormugao recorded highest growth in traffic 59.7% followed by Paradip Port (16.5%), Cochin port (13.2%), New Mangalore port (12.3%), Visakhapatnam port (7.0%), Kandla port (5.4%), Chidambaranar port (4.4%), Mumbai port (3.2%), Haldia dock complex (1.9%) and Chennai (0.3%). Major ports which recorded **negative growth** in traffic during 2016-17 were: Kamarajar port (6.8%), Kolkata Dock System (KDS) (3.6%) and Jawaharlal Nehru Port Trust (JNPT) (2.9%).

1.4.3 Amongst the Major Ports, Kandla Port handled the maximum Cargo of 105.44 million tonnes with a share of 16.3% in total cargo handled at major ports followed by Paradip (13.7%), Mumbai (9.7%), JNPT (9.6%), Vishakhapatnam (9.4%), Chennai (7.8%), NMPT (6.2%), Chidambaranar (5.9%), Haldia Dock Complex (5.3%), Mormugao (5.1%), Kamarajar (4.6%), Cochin (3.9%) and Kolkata Dock System (KDS) (2.5%) during 2016-17 (**Table 4**).

Table 4 : Traffic Handled at Major Ports						
(Thousand Tonnes)						
Ports	2012-13	2013-14	2014-15	2015-16	2016-17(P)	% change 16-17/ 15- 16
1	2	3	4	5	6	7
Kolkata	39928	41386	46293	50289	50314	0.0
Kolkata DS	11844	12875	15283	16782	16173	-3.6
Haldia DC	28084	28511	31010	33507	34141	1.9
Paradip	56552	68003	71011	76386	88955	16.5
Vizag	59038	58504	58004	57033	61020	7.0
Kamarajar	17885	27337	30251	32206	30020	-6.8
Chennai	53404	51105	52541	50058	50214	0.3
Chidambaranar	28260	28642	32414	36849	38463	4.4
Cochin	19845	20886	21595	22098	25007	13.2
New Mangalore	37036	39365	36566	35582	39945	12.3
Mormugao	17738	11739	14711	20776	33179	59.7
Mumbai	58038	59184	61660	61110	63049	3.2
JNPT	64488	62333	63801	64027	62151	-2.9
Kandla	93619	87005	92497	100051	105442	5.4
All Ports	545831	555489	581344	606465	647759	6.8
Source: IPA, (P): Provisional						

Commodity-wise growth of cargo traffic at Major Ports

1.4.4 At a broad commodity level, 2016-17, Iron ore posted growth rate of 177.1% followed by food grains (163.0%). The other commodities such as POL, Other Commodities and

Container posted growth of 8.4%, 2.0% and 1.2% respectively. Cargo traffic in Fertilizer and Coal posted negative growth of 11.9% and 6.6% respectively in 2016-17.

1.4.5 In terms of composition of cargo traffic handled during 2016-17 at major ports, the largest commodity group (with share in percent in total cargo handled) was POL (32.8%), Others cargo (20.1%), Container traffic (19.2%), Coal (18.2%), Iron ore (6.6%) and Fertilizer & FRM (2.2%) and food grains (1.0%) in **Table 5**.

Table 5 : Commodity wise Traffic Handled at Major Ports						
(Thousand Tonnes)						
Commodities	2012-13	2013-14	2014-15	2015-16	2016-17	% change 2016-17/ 2015-16
1	2	3	4	5	6	7
POL	180725	181055	181020	195941	212356	8.4
Iron Ore	27289	24616	18002	15354	42540	177.1
Fertiliser	14797	13784	16291	15898	14004	-11.9
1. Finished	7469	6149	7926	8419	7003	-16.8
2. Raw (DRY)	7328	7635	8365	7479	7001	-6.4
Coal	86804	104271	119474	125955	117636	-6.6
1. Thermal Coal	58772	71651	87119	98603	88575	-10.2
2. Coking Coal	28032	32620	32355	27352	29061	6.2
Food Grain	6597	4796	3089	2406	6327	163.0
Container (Tonnes)	119866	114672	119441	123119	124575	1.2
Others	109753	112295	124027	127792	130321	2.0
Total	545831	555489	581344	606465	647759	6.8
Source: IPA, (P): Provisional						

1.4.6 The Port-wise and Commodity-wise shares in total cargo traffic during 2016-17 are depicted in the **Charts II and III** respectively.

Chart-II Major Ports-Port-wise share in Traffic Handled during 2016-17 in India

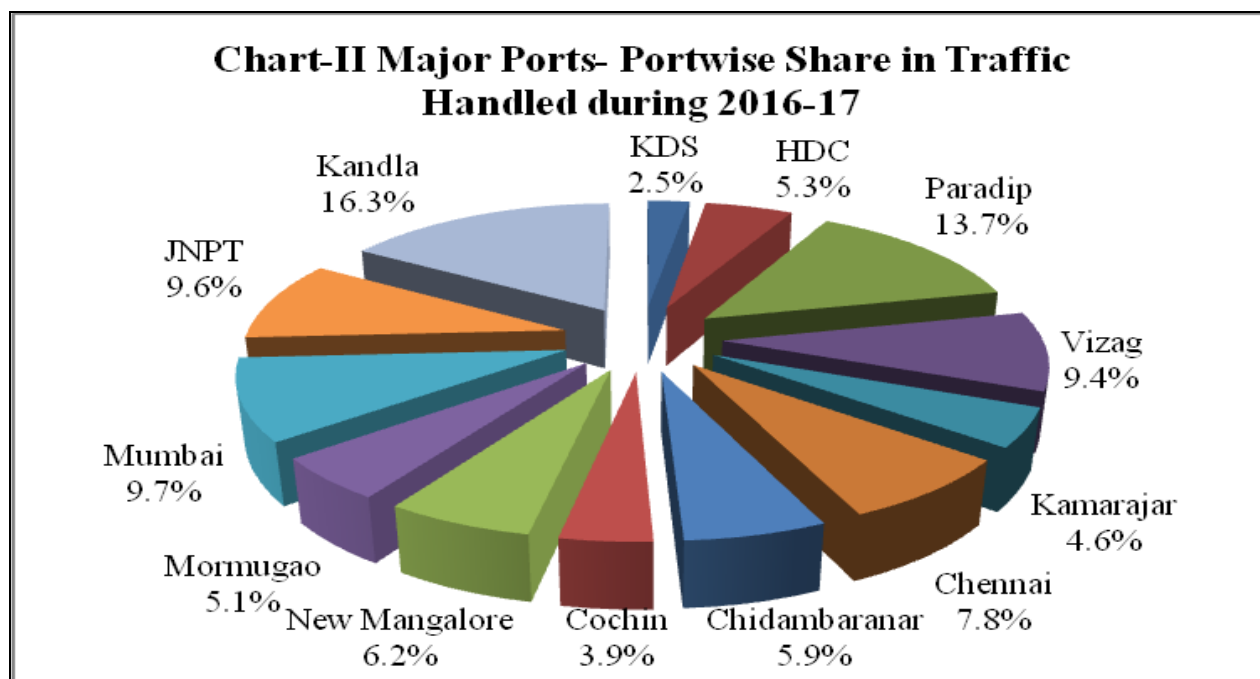
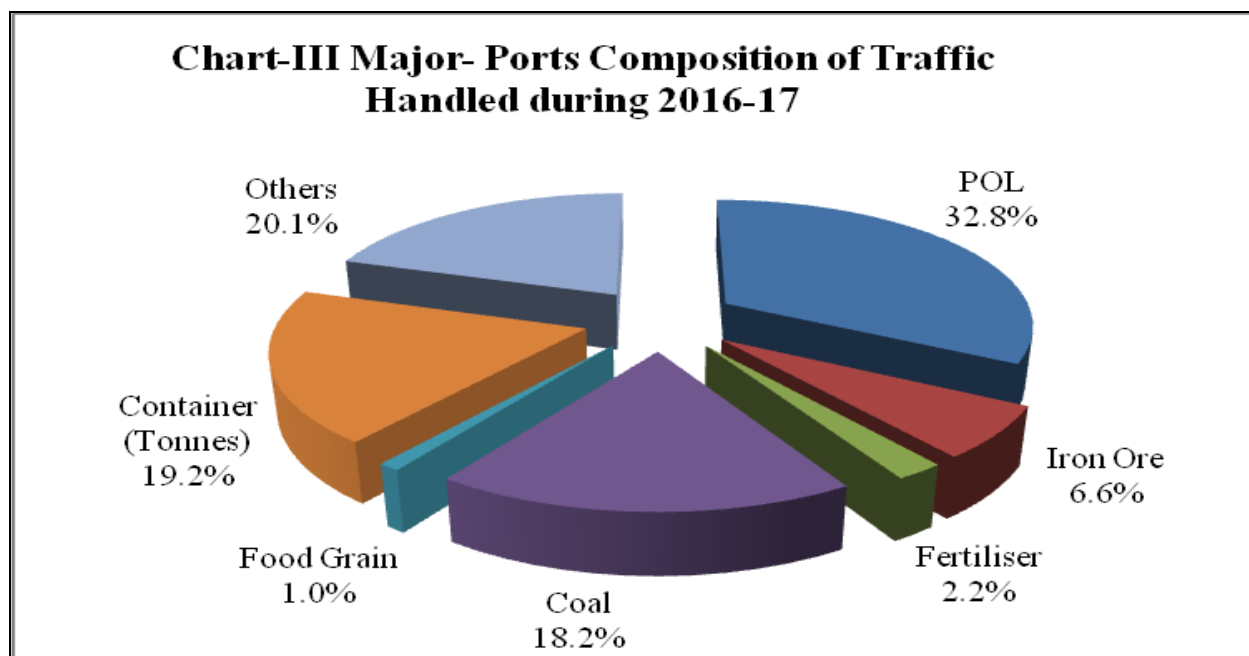


Chart-III Major Ports-Commodity composition of Traffic Handled during 2016-17 in India



1.4.7 The Port-wise & commodity-wise traffic handled at major ports from 2012-13 onwards are given in **Annex –II**.

Container Traffic

1.4.8 Growth in container traffic (in million tonnes) which reflects largely trade in manufactures and components, at 1.2% during 2016-17 is lower compared to 3.1% achieved in the year 2015-16. In terms of Twenty Foot Equivalent Units (TEUs), containers handled by Major Ports during 2016-17 recorded growth of 2.0% only compared to 3.6% achieved during 2015-16. Amongst the major ports, ports at Paradip, Chennai and JNPT witnessed fall in container traffic. JNPT is continues to be the leading container handling port in the country with a share of 43.8% in terms of tonnage and 53.5% in terms of TEUs in the total container traffic at major ports during 2016-17 (**Table 6**). Chennai port which handled 23.2% of container cargo is the second largest container handling port followed by Chidambaranar (10.4%).

Table 6: Container Traffic at Major Ports										
(in thousand tonnes/TEUs)										
PORT	2013-14		2014-15		2015-16		2016-17(P)		% change 2016-17/ 2015-16	
	Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU
1	2	3	4	5	6	7	8	9	10	11
Kolkatta DS	7063	449	8110	528	9263	578	9887	636	6.7	10.0
Haldia DC	2230	113	1958	102	1376	85	2467	136	79.3	60.0
Paradip	99	9	67	4	121	5	37	2	-69.4	-60.0
Vizag	4916	262	4372	248	5145	293	6428	367	24.9	25.3
Chennai	28330	1468	29945	1552	30207	1565	28850	1495	-4.5	-4.5
Ennore	0	0	0	0	1	0	1	0	0.0	-
Tuticorin	10129	508	11034	560	12388	612	12991	642	4.9	4.9
Cochin	4785	343	5246	366	5785	419	6840	460	18.2	9.8
New Mangalore	747	50	920	63	1105	76	1411	95	27.7	25.0
Mormugao	236	19	312	25	345	26	400	30	15.9	15.4
JNPT	55235	4162	56933	4467	56790	4544	54530	4500	-4.0	-1.0
Mumbai	449	41	544	45	537	43	558	42	3.9	-2.3
Kandla	453	29	0	0	56	3	175	10	212.5	233.3
All Ports	114672	7453	119441	7960	123119	8249	124575	8415	1.2	2.0
Note: CP - Corresponding period of previous year; (P) - Provisional; Tn - tonnes; TEU –twenty foot equivalent unit										
Source: IPA										

1.5 Cargo Traffic at Non-Major Ports

1.5.1 Non-major ports handled 42.8% of total maritime freight traffic of the country during 2016-17.

1.5.2 **Table 7** presents maritime state-wise share and growth of traffic handled at Non-major Ports from 2012-13 onwards.

Table 7 : Traffic Handled by Non-Major Ports by Maritime States/UTs							
Maritime State/UT	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	% Change over previous year	
						2015-16	2016-17 (P)
Gujarat	287817 (74.2)	309945 (74.3)	336095 (71.4)	339778 (72.9)	345739 (71.2)	1.1	1.8
Maharashtra	24198 (6.2)	24664 (5.9)	27295 (5.8)	28849 (6.2)	34894 (7.2)	5.7	21.0
Andhra Pradesh	51811 (13.4)	58692 (14.1)	83418 (17.7)	72733 (15.6)	69602 (14.3)	-12.8	-4.3
Goa	3389 (0.9)	284 (0.1)	760 (0.2)	430 (0.1)	117 (0.0)	-43.4	-72.8
Tamil Nadu	933 (0.2)	866 (0.2)	825 (0.2)	856 (0.2)	1170 (0.2)	3.8	36.7
Karnataka	610 (0.2)	509 (0.1)	651 (0.1)	835 (0.2)	691 (0.1)	28.3	-17.2
Other States/UTs	19165 (4.9)	22010 (5.3)	21844 (4.6)	22509 (4.8)	33113 (6.8)	3.0	47.1
All States/UTs	387923 (100.0)	416970 (100.0)	470888 (100.0)	465989 (100.0)	485326 (100.0)	-1.0	4.1
Note: Figure in parenthesis is the percentage share of traffic handled by the maritime state to the total traffic handled by all the maritime states; P- Provisional							

1.5.3 The growth in cargo handled by the non-major ports during 2016-17 was 4.1% compared to 1.0% decline recorded in the previous year. **Table 7** provides traffic handled by non-major ports in terms of maritime states (geographic location) and **Table 8** gives a glimpse of commodity profile of the cargo handled. The above table reflects that Gujarat accounted for (71.2%) of the traffic handled by the non-major ports followed by Andhra Pradesh (14.3%) and Maharashtra (7.2%). Three maritime States, viz, Gujarat, Andhra Pradesh and Maharashtra together accounted more than 90% of the total cargo traffic handled by the non-major ports in 2016-17.

1.5.4 Two commodities, viz. POL and Coal accounted for more than two-third of the total cargo handled at the non-major ports during 2016-17 (**Table 8**). The growth of Iron ore in 2016-17 was 86.7% compared to 35.1% declined in the 2015-16. The POL, building materials and others commodities recorded growth of 2.9%, 3.3% and 13.0% respectively during 2016-17. However, growth of coal and fertilizers & FRM products decreased by 6.4% and 27.8% in the year 2016-17.

Table 8: Commodity-wise Traffic Handled by Non-Major Ports							
(000'Tonnes)							
Commodity	2012-13	2013-14	2014-15	2015-16	2016-17 (P)	% Change over previous year	
						2015-16	2016-17 (P)
POL	168565 (43.5)	169777 (40.7)	167278 (35.5)	180672 (38.8)	185887 (38.3)	8.0	2.9
Iron Ore	21855 (5.6)	18338 (4.4)	26794 (5.7)	17383 (3.7)	32461 (6.7)	-35.1	86.7
Building Material	11953 (3.1)	14178 (3.4)	14224 (3.0)	14205 (3.0)	14675 (3.0)	-0.1	3.3
Coal	109264 (28.2)	126321 (30.3)	156737 (33.3)	141874 (30.4)	132816 (27.4)	-9.5	-6.4
Fertilizer & FRM	12548 (3.2)	12010 (2.9)	13952 (3.0)	16946 (3.6)	12241 (2.5)	21.5	-27.8
Others	63738 (16.4)	76346 (18.3)	91903 (19.5)	94909 (20.4)	107246 (22.1)	3.3	13.0
All	387923 (100.0)	416970 (100.0)	470888 (100.0)	465989 (100.0)	485326 (100.0)	-1.0	4.1
Note: Figure in parenthesis is the percentage share of major commodity groups in the total traffic handled by the Non major ports							

1.5.5 The share of Maritime States/UTs in the total traffic and Commodity-wise composition of traffic during 2016-17 is depicted in the pie **Charts IV and V** respectively.

Chart IV : Non-Major Ports-share of Maritime States/UTs in Traffic Handled during 2016-17

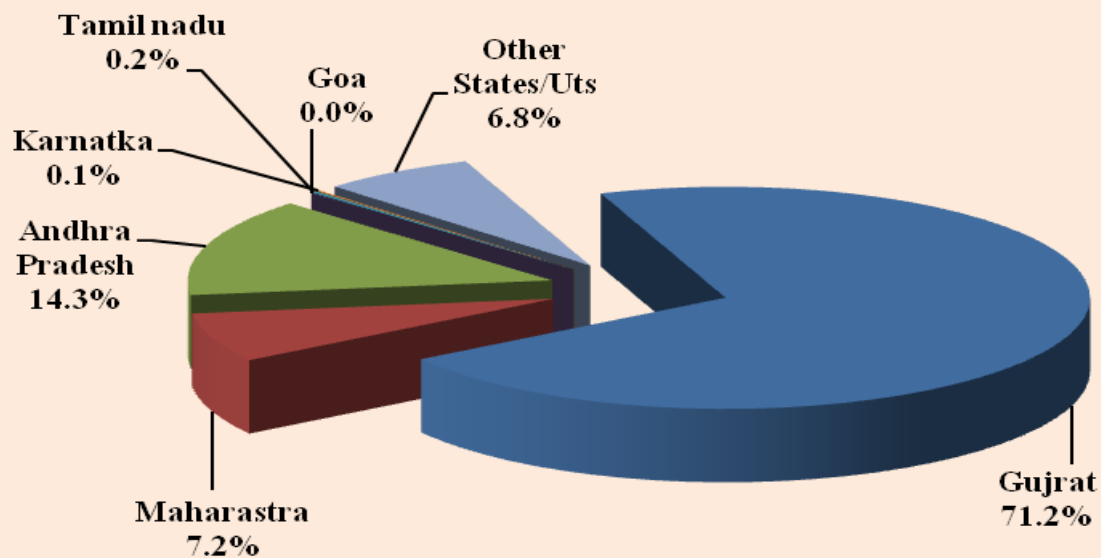
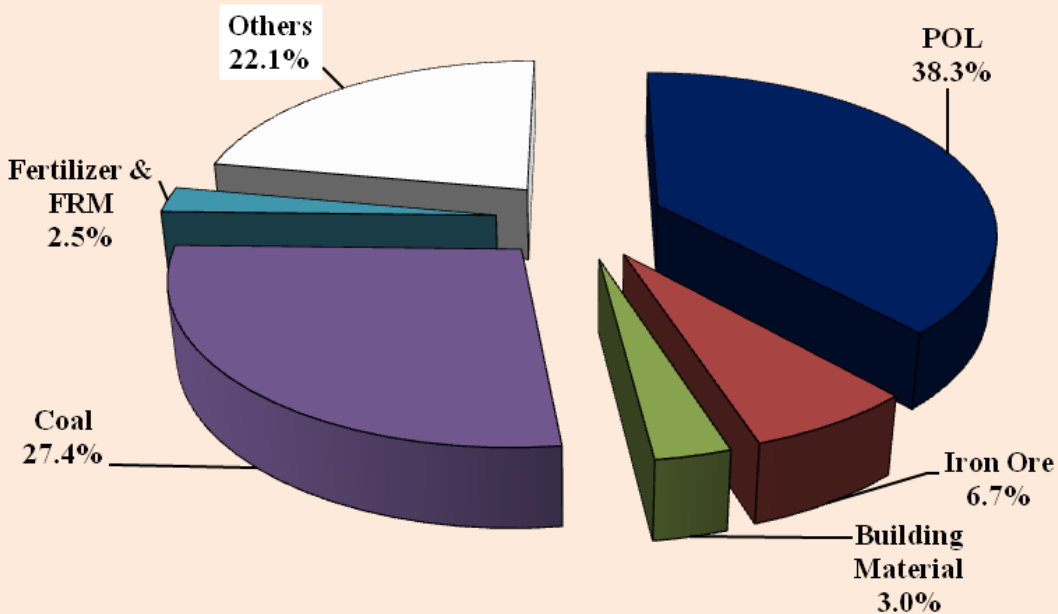


Chart V: Non-Major Ports-Commodity Composition of Traffic Handled during 2016-17



1.5.6 Maritime State-wise & commodity-wise traffic handled at non-major ports during the last few years is given in **Annex III**.

1.6 Impact of Global Macro Developments on Maritime Trade

1.6.1 Impact of growth on India's seaborne cargo

1.6.1.1 India's Maritime Transport growth is driven by developments in the world economy viz. growth in world output & trade as well as in Indian economy. Thus volume of seaborne cargo traffic is essentially in the nature of derived demand and is mainly shaped by the levels and changes in both the global and domestic activity. During 2016-17, Indian economy has continued to grow of GVA growth 6.6%, as achieved compared to 7.9% of growth in the corresponding period of the previous year.

1.6.1.2 Cargo traffic handled by India's 12 major ports (which accounts for 57.2% of India's total seaborne cargo) during 2016-17 was 647.76 million tonnes compared to 606.47 million tonnes recorded corresponding period of 2015-16 showing a growth of 6.8%. The trajectory of growth in cargo handled at India's major ports comes into sharp focus when these growth rates are viewed in terms of quarterly growth trajectories.

1.6.1.3 The Industry sector which is a major factor influencing seaborne container cargo traffic posted a GVA growth of 5.6% in 2016-17 as compared to 8.8% in corresponding period of 2015-16. GVA of Industry sector recorded growth of 7.3%, 7.1%, 10.3% and 10.3% in the four quarters of 2015-16 respectively while; growth in first two quarters of 2016-17 was 7.4% and 5.9% respectively. However the growth of industry sector in the third and four quarters was 6.2% and 3.1% respectively. The growth of industry sector was 3.1% in the fourth quarter due to this the overall growth of industry sector goes down compared to previous year.

1.6.1.4 Trends in POL, coal and fertilizers are largely driven by the dynamics of domestic demand supply and those of container traffic and "other cargo" in particular is largely shaped by the state of global demand and economic activity in India. Iron ore traffic has been impacted by the judicial intervention. The growth in Iron Ore traffic, in the 2015-16 posted growth of 5.3%, while in the year 2016-17 the growth of iron ore posted a record growth of 159.3% with re-starting of iron ore mining in Goa. The growth of Cargo handled by major ports in 2016-17 was 6.3% which was higher of growth 4.3% achieved in corresponding period of 2015-16.

1.6.1.5 **Table 9** gives Quarter wise trend in growth of cargo traffic handled at Major ports, GVA overall and GVA of Industry sector during Q1, Q2, Q3, Q4 and annual growth of 2015-16 and 2016-17.

Table -9 - Quarter-wise trend in growth of Cargo Traffic at Major Ports and GVA, India										
Commodities/ Year	2015-16					2016-17				
	Q1	Q2	Q3	Q4	Annual Growth	Q1	Q2	Q3	Q4	Annual Growth
POL	17.9	17.9	15.6	25.3	24.3	2.4	8.5	14.7	-0.5	2.4
Iron Ore	-29.0	20.5	22.8	18.0	5.3	159.3	55.3	271.6	174.8	159.3
Coal	43.9	30.4	20.5	33.1	29.9	-0.1	-8.3	-10.8	-20.4	-0.1
Fertilizer	1.0	21.4	-5.8	-23.6	-1.6	-9.3	-14.7	-11.0	-13.3	-9.3
Container										
In tonnes	1.2	1.4	1.4	8.4	3.1	3.1	-1.5	1.9	1.0	3.1
In TEUs	2.3	1.2	1.4	7.1	3.0	6.3	0.4	5.1	0.6	6.3
Other cargo	-43.2	-44.1	-41.1	-46.7	-46.4	10.1	17.6	15.6	33.4	10.1
All Cargo	4.5	3.8	1.4	7.4	4.3	6.3	4.1	12.4	4.7	6.3
GVA overall	7.6	8.2	7.3	8.7	7.9	7.6	6.8	6.7	5.6	6.6
GVA -Industry	7.3	7.1	10.3	10.3	8.8	7.4	5.9	6.2	3.1	5.6

GVA: Gross Value Addition at factor cost at 2011-12 prices.

1.6.2 Recent Developments in Global Ocean Freight Rates

In 2016, the freight rates market remained very volatile in its various segments. The continuous delivery of newly built large vessels and hesitant demand in the global shipping market put pressure on rates.

1. Container freight rates

Container freight rates declined steadily, reaching record low prices as the market continued to struggle with weakening demand and the presence of ever-larger container vessels that had entered the market in 2015. The global container shipping demand slackened in 2015. The segment recorded its slowest growth rate since 2010 – 2 per cent, compared with 5 per cent in 2014. At the same time, sluggish demand was challenged by an accelerated massive global expansion in container supply capacity, estimated at 8 per cent in 2015 – its highest level since 2010. This represented a slight increase over 2014, when container supply capacity stood at 7 per cent.

The limited growth in container demand in 2015 can be attributed to several factors, including weak European demand, which had an impact on peak leg trade between Asia and

Europe, and low commodity prices, in particular of iron ore and crude oil. This affected the economies, and in particular the imports, of commodity-dependent developing countries, mainly in Africa and Latin America. Another contributing factor was slower economic activity in China, which also had an impact on intra-Asian trade growth.

Problems affecting the container freight market in 2015 can be traced to diverging and persistent global supply-and-demand trends and growing imbalances. This situation is expected to continue throughout 2016 and 2017, when carriers with capacities of up to 21,100 TEUs will be in service. Despite weakening demand and low freight rates, carriers continued to invest in larger vessels in 2015. The global container ship fleet is projected to grow by 4.6 per cent in 2016 and another 5.6 per cent in 2017 (AlixPartners, 2016). Such a pace would continue to outstrip global container demand and exacerbate market fundamentals and in turn challenge container ship market conditions and freight rates in the short term, especially on the mainlanes (Clarksons Research, 2016).

2. Tanker freight rates

The tanker market, which encompasses the transportation of crude oil, refined petroleum products and chemicals, witnessed one of its best years since the market crisis in 2008. The crude oil tanker and oil product tanker markets enjoyed strong freight rates throughout 2015, prompted by the drop in oil prices that had begun in mid-2014 and had been sustained by relatively low supply-side growth in 2015.

The progression of the Baltic Exchange tanker indices was relatively moderate. The average Dirty Tanker Index increased by 5.6 per cent to 821 points in 2015, compared with 777 points in 2014. The average Clean Tanker Index reached 638 points in 2015, compared with 607 in 2014, a 5 per cent increase over the 2014 average. Conditions in the crude oil market were favorable in 2015, enabled by a surge in seaborne crude oil trade, which grew by 3.8 per cent. Such growth was supported by a sharp increase in floating and stocking activities, low oil prices and low crude tanker fleet capacity, which increased less than 1 per cent in 2015 (Clarksons Research, 2016).

Tanker markets and freight rates are expected to remain the same as in 2016. However, the significant building of oil stocks in 2015 slow-down growth in tanker demand. At the same time, while demand for tankers is expected to increase at a slow pace in the short term, the entry into market of new tanker deliveries (crude tankers and products) towards the end of 2016 may preturb

the tanker market and put downward pressure on freight rates. Overall, 2015 was the best year for oil tankers since the market crash in 2008.

Table 10 - Baltic Exchange Rate Index										
	2008	2009	2010	2011	2012	2013	2014	2015	Percentage change (2015/2014)	2016 (First Half)
Dirty Tanker Index	1510	581	896	782	719	642	777	821	5.6	790
Clean Tanker Index	1155	485	732	720	641	605	607	638	5.0	539

Source : Review of Maritime Transport -2016

Note: The Dirty Tanker Index is an index of charter rates for crude oil tankers on selected routes published by the Baltic Exchange. The Clean Tanker Index is an index of charter rates for product tankers on selected routes published by the Baltic Exchange. Dirty tankers generally carry heavier oils, such as heavy fuel oils or crude oil. Clean tankers generally carry refined petroleum products such as gasoline, kerosene or jet fuels or chemicals.

3. Dry bulk freight rates

In 2015, the dry bulk market witnessed one of its worst years since 2008. Dry bulk freight rates plunged to a record low as weakening demand and strong supply created a high imbalance in market fundamentals. The dry cargo market was mainly affected by a substantial slowdown in seaborne dry bulk trade, with volumes contracting by 0.2 per cent as a result of limited growth in the iron ore trade and declining coal volumes. China, the largest player on the market, saw demand for dry bulk fall in 2015, the first time since the Great Recession.

On the other hand, excess supply-side tonnage remained high, although bulk carriers continued to cancel and push back new-building deliveries, while ship scrapping activity surged to high levels. The dry bulk carriers accounted for 73 per cent of gross tonnage demolished in 2015. The increase in cancellation and scrapping activities helped to limit overall fleet growth to its slowest pace in 15 years (Clarksons Research, 2016) but it was not enough to bridge the gap between supply and demand and bring the sector back into balance. Idling of vessels was another measure taken to limit supply but on a smaller scale (about 5 million dwt lay idle) (Danish Ship Finance, 2016).

Given these challenging market conditions, the Baltic Exchange Dry Index reached several low levels. As shown in figure 3.3, the Index dropped to 519 points in December 2015, its lowest average in the year, plunging by 43 per cent from its average in December 2014. The fall continued in early 2016, and the Index posted an average of 319 points in February, 2016.

1.6.3 Trends in Global Top 20 Cargo/Container Ports

1.6.3.1 Growth in cargo and container traffic at world's top major ports/container terminals is a barometer of trends in seaborne trade. The growth in cargo traffic (million tonnes) at world's top 20 ports was at 0.9% in 2015 as compared to 6.3% in 2014. The growth in container traffic at world's top 20 port (million TEUs) was 0.5 % in 2015 as compared to 5.6% in 2014.

Recent trends in Top 20 World Major Ports (in Million Tonnes) and Container Ports (in million TEUs) are given in **Table 11** and **Table 12** respectively.

Table 11 - Top 20 World Major Ports by Total Volume					
(in Million Tonnes)					
S. No.	Port	Country	2013	2014	2015
1	Ningbo & Zhoushan	China	809.8	873.0	889.0
2	Shanghai	China	776.0	755.3	717.4
3	Singapore	Singapore	560.8	581.3	574.9
4	Tianjin	China	500.6	540.0	541.0
5	Suzhou	China	454.0	480.0	540.0
6	Guangzhou	China	454.7	500.4	519.9
7	Qingdao	China	450.0	480.0	500.0
8	Tangshan	China	446.2	500.8	490.0
9	Rotterdam	Netherlands	440.5	444.7	466.4
10	Port Hedland	Australia	326.0	421.8	452.9
11	Dalian	China	408.4	420.0	415.0
12	Rizhao	China	309.2	353.0	361.0
13	Yingkou	China	330.0	330.7	338.5
14	Busan	Republic of Korea	292.4	312.0	323.7
15	South Louisiana	United States	241.5	264.7	265.6
16	Hong Kong	China	276.1	297.7	256.6
17	Qinhuangdao	China	272.6	274.0	253.1
18	Port Klang	Malaysia	200.2	217.2	219.8
19	Shenzen	China	234.0	223.2	217.1
20	Xiamen	China	191.0	205.0	210.0
Total of Top 20 Ports			7974.0	8474.8	8551.9
Source: Port Statistics, Port of Rotterdam Authority; PRC: Peoples Republic of China;					

Table 12 - Top 20 World Container Ports					
(in Million TEUs)					
S. No.	Port	Country	2013	2014	2015
1	Shanghai	China	33.6	35.3	36.5
2	Singapore	Singapore	32.6	33.9	30.9
3	Shenzhen	China	23.3	24.0	24.2
4	Ningbo & Zhoushan	China	17.4	19.5	20.6
5	Hong Kong	China	22.4	22.2	20.1
6	Busan	Republic of Korea	17.7	18.7	19.5
7	Guangzhou	China	15.3	16.6	17.6
8	Qingdao	China	15.5	16.6	17.4
9	Dubai Ports	United Arab Emirates	13.6	15.2	15.6
10	Tianjin	China	13.0	14.1	14.1
11	Rotterdam	Netherlands	11.6	12.3	12.2
12	Port Klang	Malaysia	10.4	10.9	11.9
13	Kaohsiung	Taiwan	9.9	10.6	10.3
14	Antwerpen	Belgium	8.6	9.0	9.7
15	Dalian	China	10.0	10.1	9.5
16	Xiamen	China	8.0	8.6	9.2
17	Tanjung Pelepas	Malaysia	7.6	8.5	9.1
18	Hamburg	Germany	9.3	9.7	8.8
19	Los Angeles	United State of America	7.9	8.3	8.2
20	Long Beach	United State of America	6.6	6.8	7.2
Total of Top 20 Ports			294.3	310.9	312.5
Source: Port Statistics, Port of Rotterdam Authority; PRC: Peoples Republic of China; 1) Including river trade					

1.7 Policy Initiatives - Central Government

1.7.1 In October 1996, the then Ministry of Surface Transport issued guidelines for Private Sector participation in Major Ports. The guidelines were intended to precisely define the options for the involvement of private sector in the Major Ports.

1.7.2 Government also issued guidelines on joint venture formation in Major Ports which came into effect from 1.9.2000. In order to attract private sector investment, model bid documents were finalized for private sector projects laying down transparent bidding procedure, qualifications

and selection criteria, bid evaluation procedure, termination payment, dispute resolution process etc. and detailed terms and conditions of the License Agreement, to ensure bankability, uniformity and reduction in time taken to select the private parties.

1.7.3 The Major Port Trust Act, 1963 was further amended in the year 2000 for allowing Major Ports to form joint ventures with Non-Major/Foreign Ports as well as companies.

1.7.4 Measures for increasing the capacity of Major Ports which are under the control of Central Government are taken as part of an ongoing process, keeping in view the demands of maritime trade through implementation of development plans for the ports, improvement in productivity, etc. At the end of March 2017 the cargo handling capacity of Major Ports was 1065.83 Million Tonnes. Commodity-wise capacity of Major Ports at the end of March 2013 to 2017 is given in Annex IV.

Private Sector Participation

1.7.5 With opening up of the Indian economy, the Government of India has allowed private sector participation in Major Ports to infuse funds, induct latest technology, improved management practices and above all addition of capacity. Foreign direct investment upto 100% under automatic route is permitted for construction and maintenance of Ports and Harbours. Maritime States have also identified projects for development of non-major ports for creation of additional capacity. Private sector is envisaged to fund most of the projects through PPP or BOT or BOOT basis. It is envisaged that private sector will mainly contribute towards the cost of development of ports in India.

1.7.6 To encourage private sector participation uniformity, clarity and transparency in the bidding process is of the prime importance. The Ministry of Shipping has already put in place guidelines for private sector participation. To ensure uniformity in short listing and bidding Model RFQ and RFP documents have been finalized. A Model Concession Agreement has also been finalized which attempts to bring in uniformity to the agreements to be signed by the Major Ports as Concessioning Authority with the various private operators as concessionaire. During the year 2015-16, 10 Public Private Partnership (PPP) projects were awarded at an estimated investment of Rs. 7669.90 crore for capacity addition of 73.25 Million Tonnes in the major ports comprising construction of berths and terminals, mechanization of existing berths etc. In the first six months of

2016-17, sixteen Projects with an estimated investment of Rs. 910.23 Crores for capacity expansion of 16.86 Million Tonnes have been awarded by Major Ports.

1.7.7 The preferred route for private sector participation is through open competitive bidding in which the bidder offering the highest percentage of revenue share out of the operation of the facility which is licensed out is selected. The tariff fixation is carried out by TAMP which is an independent Regulatory Body. At present the tariffs are fixed upfront which act as a ceiling before a project is bidded out on revenue share basis as explained above. The private operators are free to charge below the ceiling.

Areas of private investment

1.7.8 The following areas which are indicative in nature have been identified for participation/investment by private sector:-

- (a) Leasing out existing assets of the Port.
- (b) Construction/creation of additional assets, such as:
 - ❖ Construction and operation of container terminals.
 - ❖ Construction and operation of bulk, break bulk, multipurpose and specialized cargo berths.
 - ❖ Warehousing, container freight stations, storage facilities and tank farms.
 - ❖ Carnage/handling equipment.
 - ❖ Setting up of captive power plants.
 - ❖ Dry docking and ship repair facilities.
- (c) Leasing of equipment for port handling and leasing of floating crafts from the private sector.
- (d) Pilotage.
- (e) Captive facilities for port based industries.

National Transport Development Policy Committee (NTDPC)

1.7.9 The Government of India had constituted National Transport Development Policy Committee (NTDPC) in 2010 under the Chairmanship of Dr. Rakesh Mohan to formulate a long term Transport Policy. The Committee has inter-alia made several recommendations for Port Sector with the intent to provide a long term direction to the future development and governance of Indian

ports and to incentivise and integrate water based transport for it to play an increasing role in the national transport network. Key recommendations of the Committee are:

a) Strategic view on port investment

(i) Mega ports

A key government priority should be to invest in 4 to 6 Mega ports over the next 20 years, with 2 to 3 on each coast to substantially cater to our foreign trade and the estimated requirement of raw material imports and exports by 2030. These mega ports can be established either by transforming some of the existing major (or non-major) ports into mega ports, if feasible, by combining some major and minor ports, or by setting up totally new mega ports. The location of the proposed mega ports should be harmonised with plans for the NHDP as well as with the upcoming and future DFCs.

An expert group needs to be expeditiously set up to study and identify potential locations for development of these mega ports.

(ii) Drafts

(a) A minimum draft availability of 14 mtrs in Major Ports has been targeted during the 12th Plan period. The targets for two hub ports, one each on the east coast and west coast are 17 mtrs. Plans to undertake capital dredging work to enhance the draft availability at channels and berths have been formulated by each major port. Presently, channels at Paradip, the outer harbour of Visakhapatnam, Chennai, Kamarajar, Cochin, New Mangalore, Mormugao and Jawaharlal Nehru ports have a draft of 14 mtrs or above, Proposals are in hand to raise the draft at Mormugao port and Kamarajar (Ennore) port to 18 mtrs and at Jawaharlal Nehru port to 15 mtrs.

b) Strategic Institutional shift – Landlord model of port governance

- The ports in India, essentially the major-ports, widely follow a hybrid format of the long obsolete service port model and the preferred landlord model. The hybrid approach has resulted in a conflict of interest between the port trusts and the private sector.
- There is immediate need to make appropriate legislative and policy changes to expedite the move to the landlord model and to transform the port trusts to statutory landlord port authorities through specific legislation. All the terminal operations of port trusts would need to be

corporatized as public sector corporations. Then, both private- and corporatized public-sector terminal operators would compete under the aegis of the landlord port authority. The corporatized public sector terminal operators could potentially be disinvested, listed, and possibly privatised at a later stage. The landlord port authority would carry out all public sector services and operations such as the award of bids for containers and other terminals, dredging etc.

- Any progressive regulatory shift should attempt to bring in the cooperation and participation of maritime states.
- New Land Policy Guidelines have since been issued in January, 2014. These guidelines provide an open and transparent framework for managing Port Lands. The Policy will ensure that land resources of the Ports are put to optimum use and all leasing of port lands is done through a transparent tender-cum-auction methodology. This has brought in accountability and minimized the element of discretion and arbitrariness at port level.

c) Role of TAMP

Tariff Authority for Major Ports (TAMP) regulates all tariffs in respect of Major Port Trusts and the private operators located therein. Necessary modifications in the Tariff Guidelines are made from time to time to promote the development of the Major Ports, Keeping in view the interest of the various stakeholders. In order to allow the competitive market forces to play a greater role in determination of tariff at Major Ports Trusts, the Government issued two new sets of Tariff Guidelines namely Guidelines for Determination of Tariffs for projects at Major Ports, 2013 and Guidelines for Port Charges, 2015. These Guidelines impart flexibility to the PPP operators as well as Major Ports owned terminals in determining their tariffs.

d) Coastal Shipping

With a view to promote coastal shipping, the Ministry of Shipping has taken a set of policy initiatives. One such initiative is to have a Green Channel clearance for cargo in major Ports as coastal cargo does not require customs clearance and only information needs to be filed with the customs. All the Major Ports are required to identify suitable infrastructure so that Green Channel clearance for coastal cargo can be made operational within the next 12 months. Green Channel clearance has already become operational in 8 Major Ports. Presently because of lack of exclusive berth, storage area and gates for coastal cargo in the ports, there is

considerable delay in clearance of these cargoes. The Ministry of Shipping has given a policy directive to all the major ports to have exclusive berths with associated storage space and separate gates for coastal cargo. A new scheme for setting up of coastal berths at Major Ports has been approved. The Cabinet has also given approval to create a special purchase vehicle (SPV) to focus on providing different evacuation system in Major Ports and their connectivity.

A New Central Sector Scheme has been formulated to provide financial support by way of grant to:

(1) Major Ports/ Non-Major Ports for

(i) Construction/ up-gradation of

(a) Exclusive coastal berths for coastal cargo

(b) berths/Jetties for passenger ferries

(c) Construction of platforms/ jetties for hovercrafts/ seaplanes in port waters and

(2) State Governments concerned for construction of berths/jetties in National Waterways.

Assistance under the proposed revised scheme would be given up to 50% of the total cost of the project subject to a maximum of Rs. 25 crores for projects related to construction/ upgradation of coastal berths for coastal cargo and passengers and a maximum of Rs. 10 crore for construction of platforms for hovercrafts and jetties for seaplanes. The balance cost will have to be borne by respective ports/ concerned State Govt. from their internal/own resources.

e) Sagarmala Project

The project has been launched with an objective of modernising the ports along India's Coastline and achieving rapid expansion of port capacity and development in land and coastal navigation. The initiative aims at supporting port led development through appropriate policy and institutional interventions, port infrastructure enhancement including modernisation and setting up of new ports and efficient evacuation to and from hinterland. The work under the project will be done in close coordination with Maritime States/ UT governments.

f) A New Central Sector Scheme has been formulated for providing financial assistance to Major Ports for Green Port Initiatives.

The objective of the New Central Sector Scheme is to support Major Ports by way of financial assistance to formulate an Environmental Management and Monitoring Plan (EMMP) or Green Plan as also to acquire equipments for monitoring the environmental pollution and take mitigating measures to keep the pollution within accepted regulatory standards/norms. It is also proposed to give financial assistance for taking up projects for energy generation from renewable energy resources as also for other projects for addressing Green Port Initiatives like water re-cycling, ecologically friendly garbage disposal, Green curtains, water curtains etc. Financial assistance under the Scheme would be given in the form of grant-in-aid. It would be given to the extent of Rs.50% of the cost of the project with the balance to be contributed by the concerned Major Port.

g) New Central Sector Scheme for providing assistance to Major Ports and oil handling Non-Major Ports under State Maritime Boards/ State Government for combating oil pollution and for mitigating measures

Government has formulated a new Central Sector Scheme for providing assistance to Major Ports and 26 oil handling Non-Major Ports under State Maritime Boards/ State Govts for combating oil pollution/spills and for mitigating measures. Financial assistance under the Scheme would be given in the form of grant-in-aid to help these ports procure pollution response (PR) equipments/ materials necessary for combating Tier-I oil spills in their port waters. Based on the risk of oil spill, these Ports have been divided in 3 categories viz category A, B, & C and for procurements of requisite Pollution Response equipments /materials. The estimate cost is Rs. 15 Cr., Rs. 2.50 cr and Rs. 1.00 cr. respectively. Assistance under the Scheme would be given upto 50% of the total cost of the procurement of pollution response (PR) equipments/ materials in 2 equal instalments and the balance 50% to be contributed by the respective port from its' own resources.

h) Stevedoring Policy

The Ministry of Shipping has formulated a new Stevedoring and Shore handling policy for Major Ports. The policy has been prepared in consultation with Major Ports and other Stake-holders. The policy shall come into effect in all the Major Ports except Haldia Dock

Complex (HDC) not later than 01.04.2016. The policy envisages an open and transparent auction system based on the TAMP notified tariff to give licenses for stevedoring and shore handling on revenue sharing basis for a period of three years. It is expected that the policy will bring in competition amongst the service providers and enable qualitative and cost effective services to the Trade.

i) Benchmarking Study of Major Ports (Project UNNATI)

An international consultant was engaged to prepare a Quantitative Benchmarking Module which covered the operational, financial, human resources and efficiency related parameters for benchmarking of efficiency and productivity of Major Ports in India against international standards and define Key Performance Indicators for the ports and terminals. The study covered marine operations, stevedoring, jetty operations, vessel operations Yard performance, Labor productivity, Cargo storage (containers & dry bulk only), rake operations (loading/unloading of rakes), maintenance (Equipment uptime and breakdowns), Gate-In and Gate-out operations, safety, customs and penetration of IT.

The benchmarking study focused on identifying how efficiently capacity is utilized and underlying operational performance metrics across commodities. The low berth productivity and crane productivity across container terminals at Major Ports along with potential to drive 15-20% higher volumes of coal across ports, just by replicating 'best demonstrated performance' consistently was studied. Potential to double volumes of POL by replicating BDP and reducing non working time and high costs of labour and maintenance dredging across ports was also analyzed.

On the basis of the quantitative and qualitative benchmarking carried out, a clear roadmap for improvement for each port has been laid out covering changes in the areas of core business processes, equipment, organization structure, people skills, information technology and infrastructure.

A total number of 116 new initiatives for 12 Major Ports has been identified which would increase the volume of traffic significantly and also avoidance of capital expenditure. The roadmap for improvement has been suggested along with the timelines, approach and methodology for

implementation. All the 116 recommendations are to be implemented by December 2019. Out of these, 69 have already been implemented. The implementation of these initiatives will further improve the efficiency and performance of the Ports.

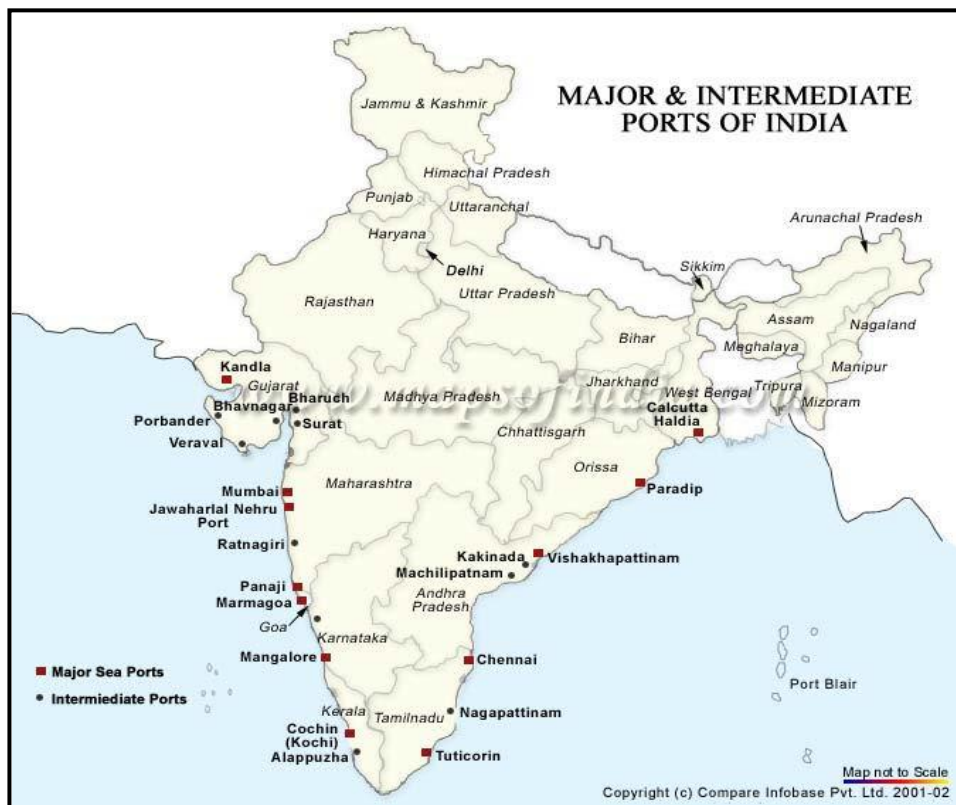
j) Coastal Transportation of Vehicles by Ro-Ro Vessels

To promote Coastal Transportation of vehicles by Ro-Ro Vessels, the rebate on vessel related charge (VRC) and cargo related charge (CRC) at Major Ports has been increased from existing 40% to 80% for two years w. e. f. 20th September, 2016.

2. POLICY AND PERFORMANCE OF MARITIME STATES

2.1 Ports are economic and service provision units of a remarkable importance since they act as a place for the interchange of two transport modes, maritime and land, whether by rail or road. Therefore, the essential aspect of ports lies in their intermodal nature. India has a coast-line of over 7517 Kms with 12 major ports and 205 notified non-major (minor/intermediate) ports along the coast-line and sea-islands. These 205 Non-major ports are located in Gujarat (46), Maharashtra (48), Goa (5), Daman & Diu (2), Karnataka (9), Kerala (17), Lakshadweep (10), Tamil Nadu (16), Puducherry (3), Andhra Pradesh (12), Orissa (13), West Bengal (1) and Andaman & Nicobar Island (23). Out of these 205 Non-major ports, only some ports are well developed and provide all-weather berthing facilities for cargo handling. In 2015-16, only 69 Non-major Ports were reported to have handled cargo traffic. **Chart-VI** gives the geographical location of the Major and prime Non-Major Ports. The Maritime Ports operate within the statutory framework of the Indian Ports Act 1908 which applies to all the ports. However, the Major Ports Act 1963 applies only to Major Ports. Each Major Port is administered by a 'Port Trust' except for the port of Kamarajar (Ennore) which is a corporatised entity.

Chart - VI



Source: <http://www.mapsofindia.com>

2.2 The Major Ports are under the purview of the Centre while the Non-Major Ports are under the purview of the States. Port development in the Central Sector has emphasized additions to capacity as well as provision of commodity specific handling facilities (at Major Ports) as per the Plan Schemes. With the liberalization of the economy, private sector participation in development of Major Ports has been encouraged. The Maritime States are also actively pursuing the development of Non-Major Ports to meet the growing needs of the sea borne trade.

2.3 Maritime States Development Council (MSDC)

2.3.1 With a view to have an integrated approach for the development of both Major and Non-Major Ports, the **Maritime States Development Council (MSDC)** was constituted in May, 1997 under the Chairmanship of the Hon'ble Minister of Shipping. The Ministers in-charge of Ports in all Maritime States, Union Territories of Puducherry, Andaman's & Nicobar Administration, Daman & Diu and Lakshadweep are its members. The deliberations and decisions of the MSDC provide the institutional framework for coordinated development of Major and Non-Major ports. So far sixteen meetings of MSDC have been held.

2.4 Maritime States – Non-Major Ports

Non-major ports in India collectively handled 477.81 million tonnes of traffic during 2016-17 as compared to 465.99 million tonnes of cargo handled in 2015-16 recording growth of 2.5%.

2.4.1 GUJARAT

2.4.1.1 The state of Gujarat is endowed with 1215 km length of coastline which constitutes about one-sixth of the total Indian coastline. Out of 47 ports located along its coastline, 46 are non major ports while one port, viz. Kandla is a major port. Out of 46 non-major ports, 18 non-major ports in the State are handling cargo. The remaining 28 non-major ports are used for fishing activities and have negligible traffic. A snap view of the location of ports in Gujarat is given in **Chart –VII.**

Chart – VII: Gujarat: Major and Minor Ports



Source : http://www.gmbports.org/port_pog.htm

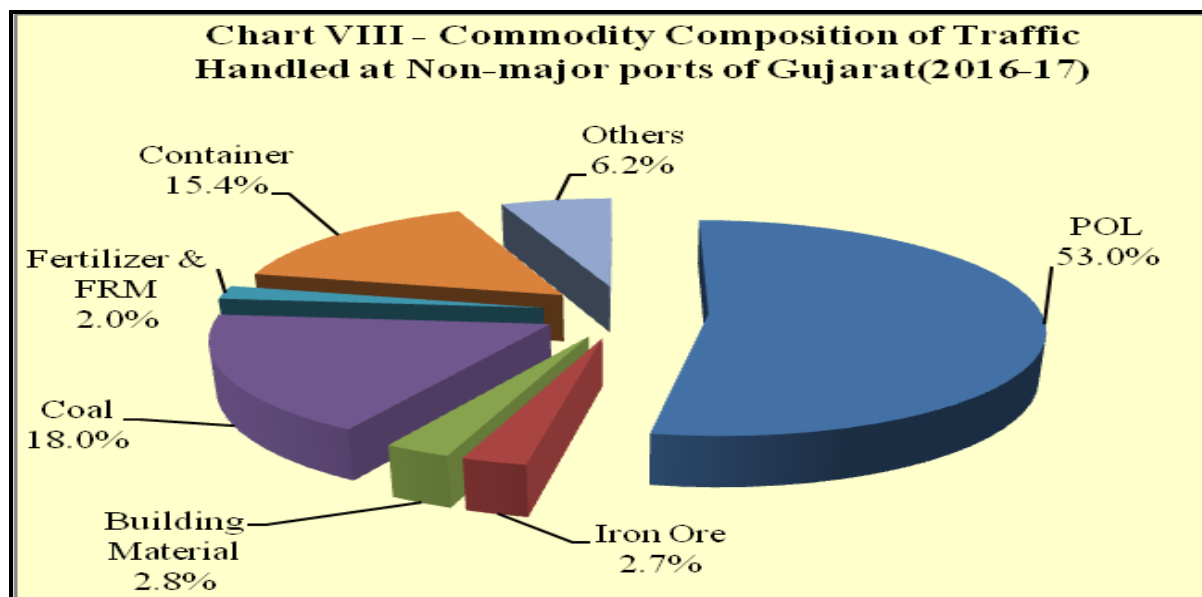
2.4.1.2 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in **Table 13**.

Table 13 - Gujarat: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	82.50 (03.8)	93.62 (13.5)	87.01 -(07.1)	92.50 (06.3)	100.05 (08.2)	105.44 (05.4)
Non-Major Ports	259.05 (26.0)	287.82 (11.1)	309.95 (07.7)	336.10 (08.4)	339.78 (01.1)	345.74 (01.8)
All Ports	341.55 (19.8)	381.44 (11.7)	396.96 (04.1)	428.59 (08.0)	439.83 (02.6)	451.18 (02.6)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional						

2.4.1.3 It is noteworthy that all ports (major and non-major) located along the coast of Gujarat handled 40.1% of the total cargo handled by Indian ports in 2016-17. The total cargo traffic handled at the major and non-major ports of Gujarat during 2016-17 was of the order of 451.18 million tonnes as against 439.83 million tonnes in the same periods of 2015-16, reflecting an

increase of 2.6%. In particular, non-major ports of Gujarat alone handled close to three-fourth of total cargo traffic at India's non-major ports during 2016-17.

2.4.1.4 Amongst the Maritime States of India, Gujarat is one of the States, which has played a proactive role in the development of non major ports on its coastline. The share of commodity-wise traffic handled by non-major ports of Gujarat is shown in **Chart VIII**.



2.4.1.5 Recent trends in cargo handled and capacity creation in non-major ports of Gujarat are captured in the **Table 14**. It indicates sustained increase in cargo throughput and capacity addition. During the year 2016-17, 35 million tonnes of capacity was added taking the total cargo handling capacity in the non- major port sector in the Gujarat to 501 million tonnes. Gujarat Maritime Board (GMB) is the nodal agency for regulation and development of the State's maritime activities.

Table 14 - Gujarat: Non Major Ports - Capacity & Utilization						
	(Million Tonnes)					
Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Capacity*	323 (32.4)	366 (13.3)	387 (05.7)	422 (09.0)	466 (10.4)	501 (07.5)
Cargo Handled	259.04	287.82	309.95	336.10	339.78	345.74
% Utilization	80.2	78.6	80.1	79.6	72.9	69.0
* Including Lighterage Port Capacity;						
Figures within parenthesis indicate percentage change over the previous year/period.						

2.4.1.6 As per the port policy, Gujarat Maritime Board (GMB) has selected 11 Green Field sites for development of new ports as “All weather Deep Water Direct Berthing Ports”. Amongst 11 ports, 6 ports are to be developed through private investment and remaining 5 ports in the joint sector.

2.4.2 MAHARASHTRA

2.4.2.1 The State has a coastline of around 653 km, with 2 major ports viz. Mumbai and Jawahar Lal Nehru and 48 non-major ports. Out of 48 non-major ports only 14 ports handle cargo. Maharashtra Maritime Board (MMB) is the nodal agency for regulation and development of the State’s maritime activities. The trend in the cargo handled at both major and non-major ports of the State during the last few years and current year is given in **Table 15**.

Table 15 - Maharashtra: Cargo Handled at Major & Non-Major Ports						
	(Million Tonnes)					
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	121.92 (05.7)	122.53 (00.5)	121.52 -(00.8)	125.46 (03.2)	125.14 -(00.3)	125.20 (00.1)
Non-Major Ports	19.95 (65.6)	24.20 (21.3)	24.66 (01.9)	27.30 (10.7)	28.85 (05.7)	34.89 (21.0)
All Ports	141.87 (11.4)	146.73 (03.4)	146.18 -(00.4)	152.76 (04.5)	153.99 (00.8)	160.09 (04.0)
Figures in bracket represent percentage change over the previous year/period. P- Provisional						

2.4.3 GOA

2.4.3.1 Goa with a coastline of about 118 kms is criss-crossed by 7 rivers. Apart from the major port at Mormugao, there are five non-major ports all of which are riverine ports with an average depth of about 2 meters except Panaji (which is the lone cargo handling non-major port) with a depth of 4 meters.

The trend in the cargo handled at both major and non-major ports of the State during the last few years and current year is given in **Table 16**.

Table 16: Goa : Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	39.05 -(20.1)	17.74 -(54.6)	11.74 -(33.8)	14.71 (25.3)	20.78 (41.2)	33.18 (59.7)
Non-Major Ports	14.47 (04.1)	3.39 -(76.6)	0.28 -(91.6)	0.76 (167.6)	0.43 -(43.4)	0.12 -(72.8)
All Ports	53.52 -(14.7)	21.13 -(60.5)	12.02 -(43.1)	15.47 (28.7)	21.21 (37.1)	33.30 (57.0)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.						

2.4.4 KARNATAKA

2.4.4.1 Karnataka has a coastline of about 280 kms. At present, there is one major sea port, the New Mangalore Port and 9 non-major ports in Karnataka. Out of 9 non-major ports, 4 ports handle cargo in the state. During 2015-16, non-major ports in the State handled 0.84 million tonnes of cargo traffic as compared to 0.65 million tonnes in 2014-15 reflecting an increase of 28.3%. However, during 2016-17, non-major ports in the State handled 0.69 million tonnes of cargo traffic as compared to 0.84 million tonnes in 2015-16 reflecting decrease of 17.2%.

2.4.4.2 The trend in the cargo handled at both major and non-major ports of the State during the last few years and current year is given in **Table 17**.

Table 17 - Karnataka: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	32.94 -(07.3)	37.04 (12.4)	39.36 (06.3)	36.57 -(07.1)	35.58 -(02.7)	39.95 (12.3)
Non-Major Ports	0.59 -(93.1)	0.61 (03.4)	0.51 -(16.6)	0.65 (27.9)	0.84 (28.3)	0.69 -(17.2)
All Ports	33.53 -(23.9)	37.65 (12.3)	39.87 (05.9)	37.22 -(06.7)	36.42 -(02.1)	40.64 (11.6)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.						

2.4.5 KERALA

2.4.5.1 Kerala has a coastline of 570 kms, with one major port at Cochin and 17 other non-major ports. The Vallarpadam Container Terminal Project in Cochin has been promoted on BOT basis through public private participation. In Kerala, 4 non-major ports are handling cargo.

2.4.5.2 The trend in the cargo handled at both major and non-major ports of the State during the last few years and current year is given in **Table 18**.

Table 18 - Kerala : Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	20.09 (15.3)	19.84 -(01.2)	20.89 (05.3)	21.60 (03.4)	22.10 (02.3)	25.01 (13.2)
Non-Major Ports	0.10 -(16.7)	0.10 -(04.0)	0.09 -(06.3)	0.16 (76.7)	0.14 -(11.3)	0.14 -(00.7)
All Ports	20.19 (15.0)	19.94 -(01.3)	20.98 (05.2)	21.75 (03.7)	22.24 (02.2)	25.15 (13.1)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.						

2.4.6 TAMIL NADU

2.4.6.1 Tamil Nadu has a coastline of about 906 km, with 3 major ports at Chennai, Kamarajar (Ennore) and Chidambaranar (Tuticorin) and 16 non-major ports. Out of 16 non-major ports, only 5 ports handled Cargo. A Port Policy for promoting private investment for the development of minor ports in Tamil Nadu has been formulated. Its main objectives are to provide exclusive port facilities for import of Coal/Naphtha/Oil/Natural Gas for shore based thermal power plants, promote export oriented and port based industries along the coastal districts of Tamil Nadu, encourage ship-repairing, ship-breaking and manufacture of cranes and floating cranes. In addition, leisure tourism and water sports along the coastline are also aimed.

2.4.6.2 During 2016-17, the non-major ports in Tamil Nadu collectively handled 1.17 million tonnes of cargo traffic as compared to 0.86 million tonnes in 2015-16 reflecting a growth of 36.6%. The trend in the cargo handled at both major and non-major ports of the State during the last few years and current year is given in **Table 19**.

Table 19 - Tamil Nadu: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	98.77 (03.4)	99.55 (00.8)	107.08 (07.6)	115.21 (07.6)	119.11 (03.4)	118.70 (-00.3)
Non-Major Ports	1.21 (03.4)	0.93 (-23.1)	0.87 (-06.9)	0.83 (-04.7)	0.86 (03.8)	1.17 (36.6)
All Ports	99.98 (03.4)	100.48 (00.5)	107.95 (07.4)	116.03 (07.5)	119.97 (03.4)	119.87 (-00.1)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.						

2.4.7 ANDHRA PRADESH

2.4.7.1 Andhra Pradesh has one major port at Visakhapatnam besides 12 non-major port locations: Bhavanapadu, Meghavaram, Bheemunipatnam, Gangavaram, Kakinada SEZ, Kakinada Deep Water, Rawa, Narsapur, Machilipatnam, Nizamapatnam, Vodarevu, Mutyalammappalem and Krishnapatnam. In addition, the department of ports is taking up limited operations at the Kakinada anchorage port.

2.4.7.6 Ports in Andhra Pradesh collectively handled 130.6 million tonnes of cargo during of 2016-17 compared with 129.8 million tonnes in 2015-16 thus registering increase of 0.7% in traffic handled by major and non-major ports of Andhra Pradesh. Non-major ports in Andhra Pradesh posted negative growth of 4.29% in 2016-17. The trend in the cargo handled at both major and non-major ports of the state during the last few years and current year is given in **Table- 20**.

Table 20 - Andhra Pradesh: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	67.42 (02.9)	59.04 (-12.4)	58.50 (-00.9)	58.00 (-00.8)	57.03 (-01.7)	61.02 (07.0)
Non-Major Ports	45.63 (04.4)	51.81 (13.5)	58.69 (13.3)	83.42 (42.1)	72.73 (-12.8)	69.60 (-04.3)
All Ports	113.05 (03.5)	110.85 (-01.9)	117.2 (05.7)	141.4 (20.7)	129.8 (-08.2)	130.6 (00.7)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.						

2.4.8 ORISSA

2.4.8.1 Orissa has a Coast line of 480 Kms. from Andhra Pradesh border in Ganjam District to West Bengal border in Balasore District. It is endowed with conducive, unique, natural and strategic port locations. The Government of Orissa identified 14 potential sites for development of Minor Ports. To facilitate developers for development of Minor Ports, Government of Orissa framed the Port Policy during the year 2004.

2.4.8.2 The advantages for development of sea ports in Orissa includes availability of a vast hinterland generating cargo, comprising of other developing Eastern and Central Indian States, mineral rich hinterland which offers long term potential for cargo which need seaport facility in Orissa. Paradip port is the only major port in the State under the control of Government of India which is packed to accommodate increasing traffic.

2.4.8.3 The trends in the cargo handled at both major and non-major ports of the State during the last few years and current year are given in **Table 21**.

Table 21 - Orissa : Trends in Cargo Handled at Major & Non-Major Ports						
(Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	54.25 -(04.8)	56.55 (04.2)	68.00 (20.2)	71.01 (04.4)	76.39 (07.6)	88.96 (16.5)
Non-Major Ports	5.08 (1109.5)	11.07 (117.9)	14.37 (29.8)	15.45 (07.5)	14.95 -(03.2)	22.47 (50.3)
All Ports	59.33 (03.3)	67.62 (14.0)	82.37 (21.8)	86.46 (05.0)	91.34 (05.6)	111.43 (22.0)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional. *: Dhamra Port has started operations in May 2011.						

2.4.9 WEST BENGAL

2.4.9.1 The State of West Bengal has a coastline of about 158 kms which has two Docks at Kolkata Port Trust and Haldia Port Trust under a single major port and one non- major port. The trends in the cargo handled at both major and non-major ports of the State during the last few years and current year are given in **Table 22**.

Table 22 - West Bengal :Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Major Ports	43.25 -(06.8)	39.93 -(07.7)	41.39 (03.7)	46.29 (11.8)	50.29 (08.6)	50.31 (00.0)
Non-Major Ports	0	0	0	0	0	0
All Ports	43.25 -(06.8)	39.93 -(07.7)	41.39 (03.7)	46.29 (11.8)	50.29 (08.6)	50.31 (00.0)
Figures in bracket represent percentage change over the previous year/period. P- Provisional						

2.4.10 OTHER NON-MAJOR PORTS

The other non-major ports are spread across the Union Territories (UTs) of Daman & Diu, Puducherry, Lakshadweep and Andaman & Nicobar Islands. These ports in the UTs are administered through their respective Departments. Andaman & Nicobar Islands administration has constituted a 'Port Management Board' for the development of ports in the Islands. The two non-major ports of Daman & Diu are not handling any cargo traffic for the last few years.

The trends in the cargo handled at both major and non-major ports of the Andaman & Nicobar Islands during the last few years and current year are given in **Table 23**.

Table 23 - Union Territory: Trends in Cargo Handled at A & N Islands Port (Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17(P)
Andaman & Nicobar Islands	1.21 -(41.5)	1.07 -(11.6)	1.15 (07.5)	1.16 (00.5)	1.32 (14.2)	1.28 -(03.3)
Figures in bracket represent percentage change over the previous year/period. P- Provisional						

In January 2006, the Government of Puducherry entered into a concession agreement with private developers for the development of deep water ports on BOT basis at Puducherry and Kariakal. The commercial operations started in April 2009.

The trends in the cargo handled at both major and non-major ports of the State during the last few years and current year are given in **Table 24**.

Table 24 - Union Territories: Trends in Cargo Handled at Non-Major Ports						
(Million Tonnes)						
Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17(P)
Lakshadweep	0.03	0.03	0.12	0.12	0.12	0.12
Puducherry	6.42	6.91	6.28	4.96	5.97	9.11

3: PERFORMANCE INDICATORS

3.1 Capacity Utilization

Over the years, cargo handling capacity of major ports has steadily increased to cater to the growing volume of internal and external trade. The capacity of the ports which was 172.59 million tonnes at the end of 1993-94 increased to a level of 1065.83 tonnes at the end of 2016-17. The port-wise capacity and traffic for 2016-17 is brought out in **Table 25**.

Table 25: Major Port-wise Capacity Utilisation during 2016-17				
(MillionTonnes)				
S. No.	Name of Ports	Capacity	Traffic	Capacity Utilisation (%)
1	Kolkata Ports of Trust	26.21	16.2	61.7
2	Haldia Dock Complex	69.89	34.1	48.8
3	Paradip Port Trust	143.44	89.0	62.0
4	Visakhapatnam Port Trust	110.75	61.0	55.1
5	Kamarajar Ports Limited	57.0	30.0	52.7
6	Chennai Port Trust	93.44	50.2	53.7
7	VOC-Chidambaranar Port Trust	65.9	38.5	58.4
8	Cochin Port Trust	56.57	25.0	44.2
9	New Mangalore Port Trust	87.63	39.9	45.6
10	Mormugao Port Trust	50.04	33.2	66.3
11	Mumbai Port Trust	65.33	63.0	96.5
12	Jawaharlal Nehru Port Trust	89.37	62.2	69.6
13	Kandla Port Trust	150.26	105.4	70.2
	Total	1065.83	647.8	60.8

3.2 Cargo Traffic Targets during 2016-17 & achievement during 2016-17 (upto March, 2017) for Major ports.

Achievement upto March, 2017 against the projected targets of 2016-17 is given in **Table-26**.

Table 26: Annual Cargo Traffic Targets and Achievement during 2016-17				
(In Million Tonnes)				
S. No.	Name of Ports	Targets 2016-17	Achieved 2016-17	Percentage achievement
1	Kolkata Ports of Trust	16.3	16.2	99.0
2	Haldia Dock Complex	37.5	34.1	91.0
3	Paradip Port Trust	83.1	89.0	107.0
4	Visakhapatnam Port Trust	60.0	61.0	101.7
5	Kamarajar Ports Limited	36.0	30.0	83.4
6	Chennai Port Trust	55.6	50.2	90.3
7	VOC-Chidambaranar Port Trust	39.5	38.5	97.4
8	Cochin Port Trust	25.0	25.0	100.0
9	New Mangalore Port Trust	37.3	39.9	107.1
10	Mormugao Port Trust	19.4	33.2	171.0
11	Mumbai Port Trust	62.0	63.0	101.7
12	Jawaharlal Nehru Port Trust	67.5	62.2	92.1
13	Kandla Port Trust	105.0	105.4	100.4
	Total	644.3	647.8	100.5

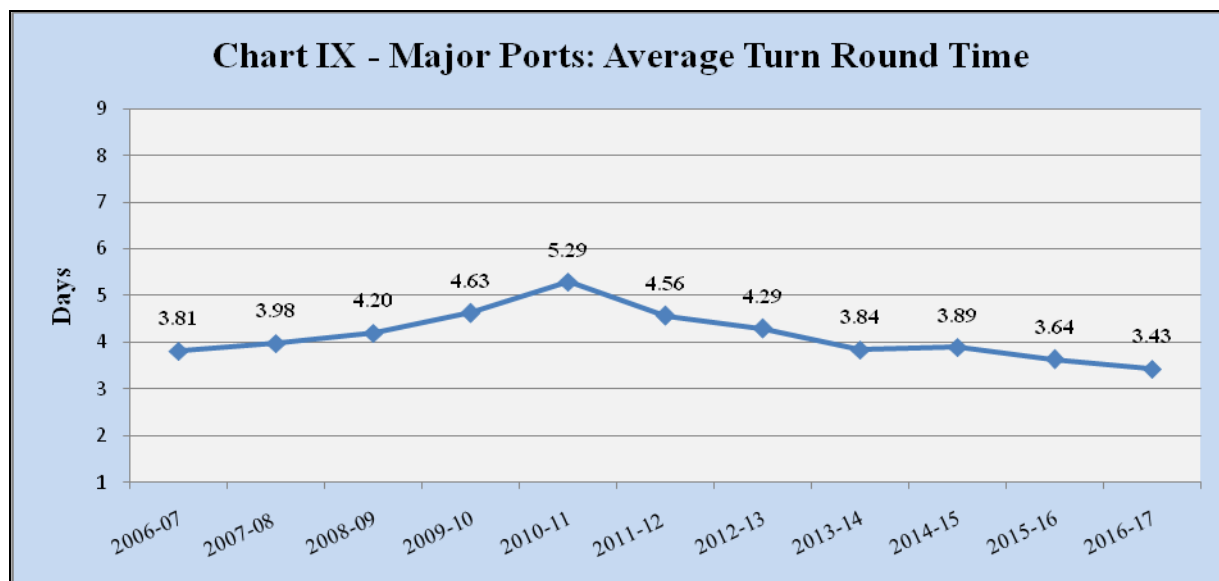
3.3 Port Efficiency

3.3.1 Efficiency at ports has an impact on transaction cost of shipping lines. Major Ports have improved their efficiency of operations as reflected in select physical performance indicators over the last several years. Some key operational indicators of physical performance pertaining to major ports for the select years are elaborated below.

Average Turn-Round Time (TRT)

3.3.2 This parameter has improved significantly during the past one and half decades for all the 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 increased steadily to 5.29 days in 2010-11 which declined to 3.64 during 2015-16. However, the TRT varied in the range between 1.99 days at Cochin Port to 4.99 at Paradip Port during 2016-17. Amongst the 12 major ports, improvement in TRT during 2016-17 compared to corresponding period of 2015-16 is reflected in all Major Ports except Kolkata (KDS & HDC), Paradip, Chidambaranar and Mormugao. Port-wise TRT

for select years are given in **Table 27**. Average Turn Round Time at major ports for select years since 2006-07 to 2016-17 is presented in the **Chart IX** below.



Turn-Round Time - Total time spent by a ship since its entry till its departure.

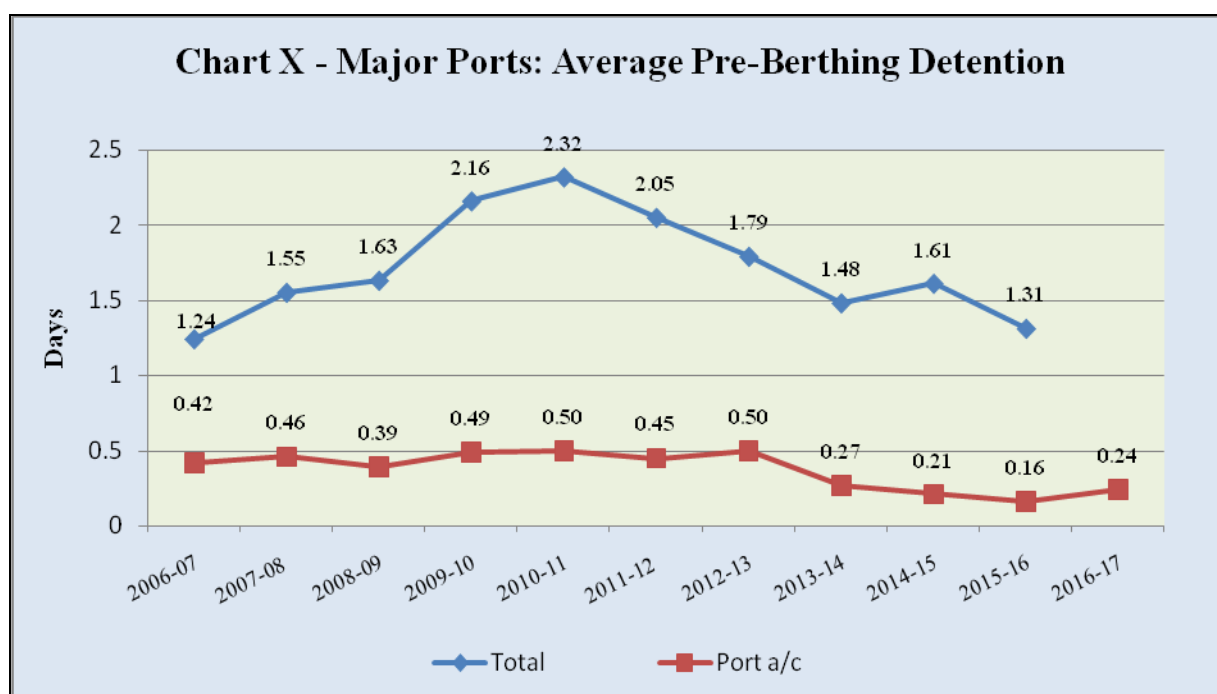
Table 27: Average Turn Round Time (days)

Port	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
1	2	3	4	5	6	7
Kolkata D.S	5.45	4.72	4.51	4.97	3.98	4.73
Haldia D.C	3.62	3.95	3.77	3.36	3.27	3.45
Paradip	6.33	4.39	4.62	7.01	4.50	4.99
Vishakhapatnam	5.68	5.39	4.73	5.67	3.84	3.75
Ennore (Kamarajar)	2.17	2.95	4.24	4.32	6.53	2.70
Chennai	3.91	3.24	2.46	2.54	2.53	2.51
Tuticorin (Chidambarnar)	4.94	4.31	3.92	3.37	3.73	4.40
Cochin	1.82	1.58	1.76	1.69	2.18	1.99
New Mangalore	2.95	3.29	3.18	2.46	2.63	2.35
Mormugao	7.68	5.06	4.50	3.97	3.65	4.51
J.L.Nehru	1.94	2.48	2.26	2.24	2.44	2.01
Mumbai	5.22	5.58	4.25	4.09	4.61	3.27
Kandla	6.42	6.33	5.66	4.90	4.66	4.40
All Ports	4.56	4.29	3.84	3.89	3.64	3.43

Source: Major Ports / Indian Ports Association (IPA)

Average Pre Berthing Detention Time (PBDT)

3.3.3 The average overall pre berthing detention time for all major ports declined from 2.16 days in 1990-91 to 1.63 days in 2008-09. However, in 2009-10 and 2010-11, the average PBDT edged up to 2.16 days and 2.32 days respectively. In contrast, average PBDT on port account has seen a sharper decline from 2.10 days in 1990-91 to 0.50 day in 2010-11. Average PBDT on port account gradually declined to 0.16 days in 2015-16. However, Average PBDT on port account in the 2016-17 increased to 0.24 days. Some of the major ports which showed improvement in average PBDT are Visakhapatnam, JNPT, Mumbai port and Kandla port. Port-wise PBD for select years is indicated in **Table 28**. The trajectory of weighted average of pre berthing detention time at Major ports- total and on port since 2006-07 to 2016-17 is shown in **Chart X** below.



Pre-Berthing Detention - The time for which a ship waits before getting entry into berth.

Table 28 : Average Pre-Berthing Detention (Days)

Port	2011-12	2012-13	2013-14	2014-15	2015-16*	2016-17(P)*
1	2	3	4	5	6	7
Kolkata D.S	0.77	0.61	0.56	0.71	0.01	0.03
Haldia D.C	2.54	2.29	2.21	1.43	0.15	0.88
Paradip	3.69	1.65	1.94	4.11	0.20	0.58
Vishakhapatnam	2.84	2.50	1.84	2.59	0.04	0.02
Ennore (Kamarajar)	0.76	1.33	2.38	2.51	0.00	0.00
Chennai	1.16	0.80	0.41	0.41	0.03	0.04
Tuticorin (Chidambaranar)	1.91	1.31	1.19	1.07	0.27	0.37
Cochin	1.05	1.09	0.97	0.84	0.06	0/24
New Mangalore	0.79	1.04	0.81	0.60	0.04	0.14
Mormugao	2.94	1.62	1.47	1.61	0.18	0.40
J.L.Nehru	1.13	1.31	1.08	0.80	0.36	0.29
Mumbai	1.37	1.62	1.18	1.69	0.31	0.09
Kandla	3.74	3.58	2.72	2.52	0.15	0.09
All Ports	2.05	1.79	1.48	1.61	0.16	0.24

Source: Major Ports/ Indian Ports Association (IPA) - * - Relates to Ports A/c only.

Average Output Per Ship Berth-day

3.3.4 During the last 25 years this indicator has seen a tremendous improvement. Average Output per Ship-berth day has increased more than four times from 3,372 tonnes in 1990-91 to 13156 tonnes in 2015-16 for major ports and further increased to 14576 in 2016-17. However, average output per ship berth day during 2015-16 is marked by substantial variation across major ports ranging from a high 31080 tonnes in case of Kamarajar port to a low of 4186 tonnes at Kolkata Dock System. However, average output per ship berth day during 2016-17 varies across major ports ranging from a high 23727 tonnes in case of Paradip port to a low of 4200 tonnes at Kolkata Dock System. This variation reflects the type of cargo being handled, level of mechanization and labour practices. Amongst the 12 major ports, improvement in average Output per Ship Berth-day during 2016-17 over the corresponding period of the previous year is visible in all the ports except Haldia, Kamarajar and Mormugao Port. Average Output per Ship-berth day during 2016-17 is 14576 tonnes compared to 13156 tonnes over the corresponding period of the previous year. Port-wise average output per Ship-berth day for select years and latest period are given in **Table 29**.

The Graph of weighted average Output per Ship Berth-day (Tonnes) at Major ports since 2006-07 to 2016-17 is shown in **Chart XI** below

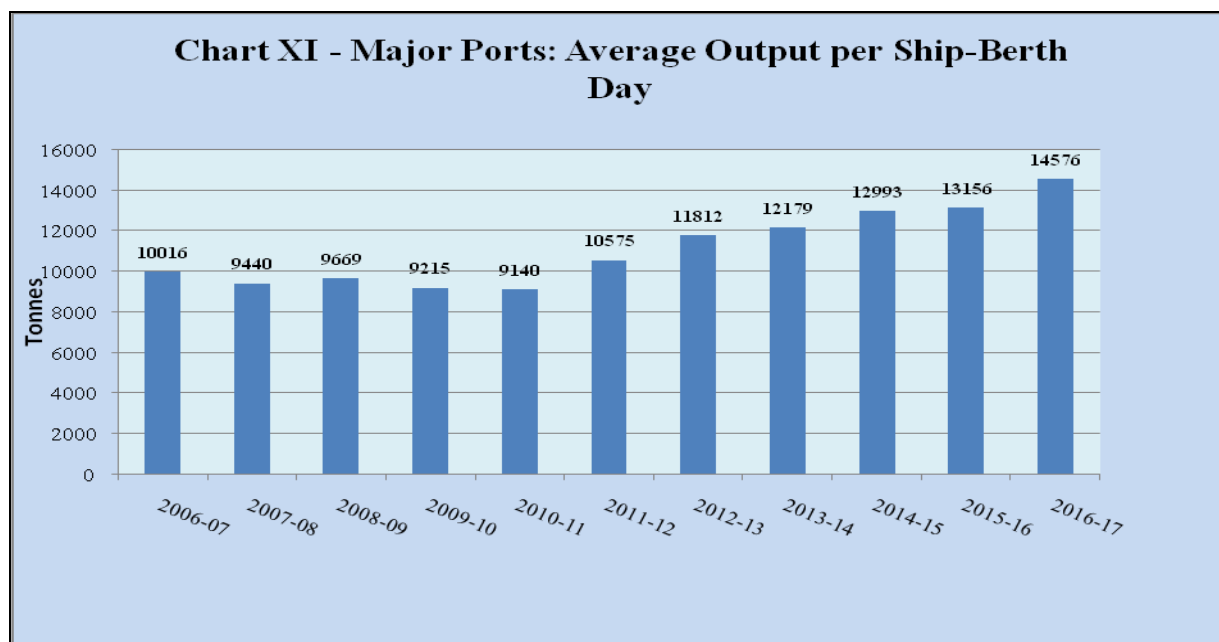


Table 29 : Average Output per Ship Berth-day (Tonnes)

Port	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
1	2	3	4	5	6	7
Kolkata D.S	2503	2762	2963	3084	4186	4200
Haldia D.C	6728	6078	6130	6802	7806	7491
Paradip	15995	16625	18179	17736	21139	23727
Visakhapatnam	10704	10641	10925	10640	12802	13069
Ennore (Kamarajar)	27505	27741	22357	22613	31080	22924
Chennai	10352	12046	14268	14464	15754	15888
Tuticorin (Chidambaranar)	6733	7452	9633	10468	10239	10456
Cochin	15784	15878	15881	16906	15661	17450
New Mangalore	13957	15921	16314	19856	16165	17094
Mormugao	10530	11484	10018	12272	13885	13461
J.L.Nehru	19227	23319	23014	21310	21287	23316
Mumbai	6476	8709	7057	11055	7922	8413
Kandla	14272	15728	15729	15159	16655	18464
All Ports	10575	11812	12179	12993	13156	14576

Source: Major Ports /Indian Ports Association (IPA).

4. PRIVATE SECTOR/CAPTIVE/JOINT SECTOR PORT PROJECTS

Brief details of the ongoing Private Sector/Captive/Joint Sector Port Projects and a list of these projects under consideration as on 31.3.2017 are brought out in Appendix-I & Appendix-II in respect of Major Ports and in Appendix-III & Appendix-IV for Non – Major Ports.

APPENDICES

- I. On going Private Sector/Captive/ Joint Venture Port Projects at Major Ports
- II. Under Formulation Private Sector/Captive/ Joint Venture Port Projects at Major Ports
- III. On going Private Sector/Captive/ Joint Venture Port Projects at Non-Major Ports
- IV. Under Formulation Private Sector/Captive/ Joint Venture Port Projects at Non- Major Ports

Appendix – I

Ongoing Private Sector/Captive/Joint venture Port Projects (Major Ports)

Sl. No	Project Name	Port Name	Capacity (Million Tonnes)	Project Cost (Rs. Crores)	Project Status
1	2	3	4	5	6
1.	Development of Container Terminal on DBFOT basis	Kamarajar Port Ltd	16.8MT (Phase I - 9.6 MTPA Phase II- 7.2 MTPA)	1270	*Phase I-Civil work completed. * Commission is delayed due Vardah Cyclone.
2.	Development of Multi Cargo Terminal on DBFOT basis	Kamarajar Port Ltd	2.00	151	*Civil work completed. *The tentative date of commissioning 24.05.2017. However, the BOT operator Concession the project at the earliest possible.
3.	Construction of Coal Berth No.3	Kamarajar Port Ltd	9.00	235.14	*Physical Progress-89.14%. *Targeted for completion for construction of berth by 31.10.2017.
4.	Development of LNG Terminal	Kamarajar Port Ltd	5.00	5151	*Physical progress-59.20%. *Date of commissioning -30.12.2018.
5.	Construction of Coal Berth-4	Kamarajar Port Ltd	9.00	245.5	*Physical progress-81.65% * Targeted for completion for construction of berth by 31.12.2017.
6.	NTPL Captive Berth North cargo berth-I	V.O. Chidambaranar Tuticorin	6.30 MTPA	43.72	Berth was constructed by Port on deposit basis and handled over to NTPL on 04.10.2012 for installation of Shore reception facility. The concession agreement finalized and yet to be signed.

7.	Construction of two New Off-shore Container berths & Development of Container Terminal berth on BOT basis in Mumbai Harbour.	Mumbai Port	9.60MTP A (1.00 Mn TEUs)	1461	<p>BOT Component- Entire Approach jetty is ready. Berth structure completed. Total investment till date is Rs. 627.25 crores. M/s. ICPTL has proposed to procure container handling equipment from 2 Chinese vendors. Details of vendors have been forwarded to ministry on 31.7.14 for security clearance. Development of container yard in Prices Dock is in progress.</p> <p>MbPT component- Fresh tenders for balance work of dredging and filling dock enclosure have been invited.</p> <p>i) The Board in its meeting held on 25.4.14 has accepted the bid of M/s International Seaport Dredging Ltd., for award of work subject to Govt. sanction to RCE.</p> <p>ii) Work order for balance filling work and dock closure placed on 4.4.14. Work of Princes Dock filling completed. Victoria Dock filling work is in progress. RCD work is in progress.</p> <p>iii) Trial operation of berth facilities has been successfully done on 26.11.14. The Board on 16.1.15 has approved alternate use of OCT project for handling automobiles with revenue sharing on trial basis for a period of 3 months.</p>
8.	Multi-User Liquid Terminal (MULT) at Puthuvypeen SEZ (International Bunkering Terminal at Cochin)	Cochin Port	4.42 MTPA	240	<p>GoI's in principle approval for assigning the MULT projects to IOCL on nomination basis given on 11.3.13.</p> <p>The concession Agreement between CoPT & IOCL on 04/04/2014.</p> <p>M/s IOCL have entrusted CoPT with execution of construction of jetty and its associated facilities, on deposit terms.</p> <p>M/s L&T Ramboll Consulting Engineers Ltd.</p>

					<p>Chennai was entrusted with preparation of FEED Document and Bid document for the Development of MULT.</p> <p>The construction of MULT was awarded to the contractor M/s, RKEC Project Pvt. Ltd. Vishakhapatnam for 217.33 Crores, work is progress. Physical progress achieved is 53.7%. The tentative date of completion is February. For Capital Dredging for Mult Basin, letter of intent has been issued to M/s DCI on 17.08.2015.</p>
9.	Mechanized of berth No. 18(old no.12) for providing equipments for handling Bulk Cargo at NMPT basis.	New Mangalore Port Trust	6.73 MTPA	469.46	<p>. Agreement signed with M/s Chettinad Coal Terminal Pvt. Ltd. On 16.03.2016 and concession awarded on 01.02.2017.</p> <p>. Construction work is under progress and scheduled to commission by 01.02. Hearing of the case has been completed and judgment may be pronounced on the next date.</p>
10.	Development of Barge handling facility at Bharathi Dock under PPP mode	Chennai	1.35 MTPA	27.29	<p>Project awarded to CBTPPL (construction of IMC Ltd.) on 30.01.2013, but due to non-fulfillment of conditions precedent, termination order issued in Feb-2016.</p> <p>Arbitration proceeding in progress.</p> <p>Alternative in-house project will be awarded after the completion of arbitration proceeding on the PPP Berge project.</p>
11.	Development of EQ-1A berth on south side of EQ-1 berth in Inner Harbour for handling Thermal coal and Steam coal	Visakhapatnam	7.36	313.39	<p>Physical progress is 78 %</p> <p>Expected completion by December, 2016.</p>
12.	Installation of mechanized Fertilizer handling facilities at EQ-7 at Inner Harbor.	Visakhapatnam	5.21	217.58	<p>Concession agreement signed on 18.05.2012. Letter of award given on 18.04.2013. Concessionaire has to submit 5 yrs. License fee as refundable security deposit. Termination notice issued on 05.04.2014. The concessionaire has</p>

					filled Writ petition in High Court, Hyderabad.
13.	Up-gradation of the existing facility (OHC) and creating new facility (WQ-1) for iron ore handling.	Visakhapatnam	23	845.41	LOA issued on 31.05.2013 to M/s Vadinar Oil Terminal Ltd. Concessionaire was awarded on 14.05.2015. Phase I construction started from 14.05.2015.
14.	Extension of existing Container terminal in outer harbor.	Visakhapatnam	0.54 MTEUs	633.11	Concession agreement signed on 17.12.2014. Expected date of completion 30.11.2018.
15.	Development of Deep Drought Coal Berth on BOT basis	Paradip Port	10.00	655.56	The concession agreement signed with ESSAR Paradip Terminal Ltd. is terminated on 02.09.2016. Fresh RFQ has been invited on 19.10.2016.
16.	Development of Multi-Purpose berths to handle clean cargo including container on BOT basis at Paradip Port.	Paradip Port	5.0 MTPA	430.78	Award of concession has been issued to Paradip International Cargo Terminal Pvt. Ltd. (PICTPL) on 04.04.2016. Work is in progress.
17.	Mechanization of EQ 1 to EQ 3 berths at Paradip Port on BOT basis.	Paradip Port	30	1437.76	Letter of Award has been issued in favour of Consortium of JSW infrastructure Ltd and South West Port Ltd. On 29.02.2016 with a revenue share of 31.70 percentage to Paradip Port Trust. However, the H2 bidder Kakinada Sea Ports Ltd. Filed a writ in Honorable High Court of Odisha challenging the award in favour of JSW. Honorable High court of Odisha has quashed the LoA. The matter is now subjudice in the Supreme Court.
18.	Development of Deep Draught Iron Ore Berth on BOT basis at Paradip Pot.	Paradip Port	10	740.19	Award of concession has been issued to JSW Paradip Terminal Pvt. Ltd. on 12.04.2016. Presently, detailed Engineering is under progress.
19.	Development of Fourth Container Terminal at JNP on DBFOT basis	JNPT	Phase-1 30MTPA Phase-II 30MTPA Total- 60 MTPA	7915	The work is in progress. The first phase schedule date of commencing is 22.12.2017 and second phase will commission by December, 2022.

20.	Development of standalone handling facility with a quay length of 330 m to the North at JNPT	JNPT	10 MTPA	600	Commenced in 2016.
21.	Redevelopment of Berths 8, 9 and Barge Berth at the Port of Mormugao, Goa	Mormugao	19.22 MTPA	1145	Letter of Award is issued to M/s Sterlite Port Ltd., Tuticorin on 29.03.2016. Concession Agreement signed on 22.09.2017. The process for EC clearance on public hearing completed on 05.05.2017.
22.	Development of liquid/POL/LPG Berth at Vasco Bay	Mormugao	2.0 MTPA	181	Approval for TOR for EIA studies received DPR submitted .Project is in bidding stage.
BOT: Build Operate and Transfer; BOO: Build Own Operate; DBFOT: Design, Build, Finance, Operate and Transfer. Note: The project status of Project name at S. No. from 1 to 6, 8 to 10 and 19 to 22 is updated on 31 st March, 2017.					

Appendix – II

Private Sector/Captive/Joint Venture Port Projects Under Formulation (Major Ports)

Sl. No	Project	Port Name	Capacity (Million Tonnes)	Project Cost (Rs. In crores)	Project Status
1	2	3	4	5	6
1.	Barge handling facilities at Khorī Creek	Kandla	4	100	Under planning stage.
2.	Construction of T shape Jetty at Tekra (Phase-II)	Kandla	14	1500	The scheme will spill over in 13 th five year plan. Under planning stage.
3.	Setting up of barge jetty at Tuna on captive use basis	Kandla	1.5	22	EOI invited. Only M/s Shree Renuka Sugars has submitted application till due date. Committee recommended the proposal submitted by M/s Shree Ranuka Sugars and also recommended to put up to the Board for approval.
4.	Construction of barge jetty at Tuna on BOT basis	Kandla	5.49	255.3	Feasibility Report, RFQ and TAMP proposal under approval.
5.	Development of Port based multi product SEZ	Kandla	-	1095	In-principle approval from MoS for formation of SPV is awaited. Concurrence of GoG is still awaited. KPT has appointed NIO, Mumbai for carrying out EIA studies.
6.	Construction of 1 No. shallow water berth for handling construction materials	Tuticorin	2.00 MTPA	65.37	Court case filed by M/s Indian Port Terminal, Tuticorin. The matter is in Hon'ble Madras High Court, Chennai. Next date of hearing is yet to be announced.
7.	Development of Multi-Purpose berths to handle clean cargo including container on BOT basis at Paradip Port.	Paradip Port	5.0 MTPA	430.78	Concession Agreement has been signed with the SPV "Paradip International Cargo Terminal (Pvt.) Ltd (PCTPL) on 7.3.15 with revenue share of 11.044%. PCTPL has sought time till 12.12.2015 for fulfillment of condition precedents.
8.	Mechanization of EQ 1 to EQ 3 berths at Paradip Port on BOT basis.	Paradip Port	30	1437.76	Fresh RFQ has been floated on 14.08.2015 with due date of RFQ as 28.09.2015.
9.	Development of Deep Draught Iron Ore Berth on BOT basis at Paradip Pot.	Paradip Port	10	740.19	Letter of Award has been issued in favour of H1 bidder i.e. consortium of JSW Infrastructure Ltd. & South West Port Ltd. on 5.2.15 at 21 % revenue share to the Port. The Project is in

					the stage of fulfillment of condition precedent including financial closure.
10.	Dredging & Infrastructure development for handling bigger ships at 18 to 22 ID Harbour Wall Berths.	Mumbai	8.00 MT	613	Due to poor response to the project as suggested by M/s RITES, it is proposed to scrap the project.
11.	Development of Outer Harbour at Chennai Port (previously called Development of Mega Container Terminal). Under PPP mode on BOT basis.	Chennai Port Trust	(32 MTPA)	5100	Mega container terminal project failed to take off due to low revenue share quoted by bidders and subsequent invitation did not receive offers. Even after restructured as Outer Harbor terminal there was no response on account of high captive cost.
12.	Development of Rajiv Gandhi Dry Port and Multi Modal Logistic Hub at Mappedu near Sriperrumbudur; under PPP mode	Chennai Port Trust	18.45 MTPA	415	121.74 acres of land at Mappedu acquired for long terms(99 years) lease from Sipcot, GoTN.Due to global recession and poor road connectivity PPPbids failed .Bids invited on land lease model for all the three parcels of land ,however port received offer only for 14.91 acers of land and bidder withdrew his offer after SIPCOT imposed Sub-lease charges. Alternative use of the land being discussed with prospective bidders for better investors' response.
13.	Development of Dry Dock /Ship Repair facility at Timber pond/Boat basin in Chennai Port on Private Sector Participation (Land Lease Model) for a lease period of 30years	Chennai Port Trust		315	Indian coast guard expressed interest to develop the facility on their own. Draft MoU with ICG was send by ICG to MoD in March- 2015 and is under consideration. Response awaited. Meanwhile,MoS declined the request of ICG for reduction in the Upfront amount payable.
14.	Development of Bharthi Dock - 2(BD-II) as co- terminal in Chennai Port Trust	Chennai Port Trust	5MTPA	180	After examine options, it was decided to develop a coal Terminal through PPP made in case of favorable recommendation from the empowered committee this projects will be taken up. Empowered committee (EC) Supreme Court likely to give its recommendations by 30.06.2016.
15.	Development of JD (East) berths for handling bulk and break bulk cargoes excluding project cargoes at Chennai Port under PPP madel	Chennai Port Trust	8 MTPA	360	After examining options, it was decided to develop a coal Terminal through PPP made. In case of favorable recommendation from the empowered committee this projects will be taken
16.	Construction of a riverine jetty	Haldia	1.5	471	Feasibility Study being undertaken, following which RFQ

	south of 2 nd Oil Jetty through DBFOT Basis.	Dock Complex under KoPT	MTPA		document would be issued.
17.	Development of Vasco Bay, (a) Development of Fishing Harbour	Mormugao Port	104	DPR submitted on 15.02.2017. TOR for EIA studies approved by MOEF.
18.	(b) Development of passenger Jetty	Mormugao Port	21	DPR submitted on 15.02.2017. TOR for EIA studies approved by MOEF.
19.	(c) General Cargo Berth	Mormugao Port	203	DPR submitted on 15.02.2017. TOR for EIA studies approved by MOEF.
20.	Construction of RO-RO cum GCB-2(own)	Kamarajar Port Limited	3 MTPA	320.00	Awaiting Environmental Clearance.
21.	Development of Captive Jetty by IOCL.	Kamarajar Port Limited	3 MTPA	465.00	The compliance of condition precedent from concessionaire is in progress and awaiting Environmental clearance. In the regard, Board has approved the extension of compliance date up to 06.06.2017. Further the finalization and handing over of physical possession of land to Concessionaire is in progress.
22.	Development of Marine Liquid Terminal-II on DBFOT Basis.	Kamarajar Port Limited	3 MTPA	393.00	RFP submission scheduled on 17.05.2017
23.	Development of facilities for handling Thermal Coal for SPIC Electric power corporation Pvt. Ltd.(SEPC)	V.O. Chidambar anar Tuticorin	2.5 MTPA	200	Agreement signed on 28.12.2016 between SEPC and VOCPT. Construction of plant work is under progress. The new berth location has been communicated to M/s. SEPC and the berth will be done by M/s. SEPC and construction yet to start.
24.	Up- gradation of CJI&II	V.O. Chidambar anar Tuticorin	24 MTPT	106	LOI was issued to M/s. SYS-Emjay (Joint venture) on 06.02.2017 for Civil work.

BOT: Build Operate and Transfer; BOO: Build Own Operate; DBFOT: Design, Build, Finance, Operate and Transfer.

Note: The project status of Project name at S. No. from 11 to 15 and 17 to 24 is updated on 31st March, 2017.

Appendix – III

Ongoing Private Sector/Captive/Joint venture Port Projects (Non-Major Ports)

Sl. No	Project Name	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
1.	Development of Mundra Port	Mundra (Gujarat)	160	12305	<p>Construction of 4 berths alongwith backup facilities has been completed.</p> <p>Phase-I of the Project completed & Operational</p> <p>1.810 m Multipurpose jetty 2.1843 m container terminal & T-2 3. 1 SBM and other back up facilities</p> <p>Phase-2:</p> <p>1. 1510 m Coal Terminal, Wandh-Operational 2. 810 m Container Terminal Operational 3. Second SBM Operational 4. Multipurpose 3 Operational 5. Out of two proposed LNG Berths under Phase-II, Proposal for granting in principle approval to be developed in JV with GSPC LNG Ltd., has been submitted to GOG. The same is yet to be received. Meanwhile construction permission to GLL has been issued. 6. In-Principle approval has been granted to M/s ACMTPL for development of Container Terminal 4. Construction is in progress. 7. Proposal has been submitted to Govt. of Gujarat for in-principle approval for CT-3 extension.</p>
2.	Hazira Port Pvt. Ltd (HPPL)	Hazira, (Gujarat)	2.50 (MMTPA)	1180.4	Phase 1 A (LNG Terminal) completed and operational.
3.	Petronet LNG Ltd.2nd jetty	Dahej (Gujarat)	2.5	612	Construction completed & operational

4.	Development of BGCT under phase I B at Hazira	Hazira, (Gujarat)	24.6	267.6	Completion of construction of the following: 1) 2 container berths are 4 multi-purpose berths 2) breakwater 3) backup facility for handling the cargo.
5.	Development of Solid Cargo Port Terminal	Dahej (Gujarat)	15	84	Two solid cargo berths with cranes completed 1) Backup area constructed 2) Conveyor system for berth no.1 completed as per DPR
6.	Captive Jetty by Jp Associates limited jakhau port	Jakhau (Gujarat)	3	140	Made operational. But JAL jetty is taken over by Ultra-Tech Cement and jetty became non-operational since June 2013. Recently, GMB has granted the change of company.
7.	Captive Jetty by Essar Salaya Bulk Terminal Limited.	Salaya (Gujarat)	7	600	The Construction of Jetty is completed. Approach bund is under construction.
8.	Captive Jetty by ABG Cement Ltd	Hazira Mora (Gujarat)	2	100	Construction permission granted. Extension in construction period is granted by the Board in its meeting held on 28.09.2015.
9.	Captive Jetty by M/s. Essar Bulk Terminal Ltd. -1100m (3 rd Expansion)	Hazira (Gujarat)	25	2621	Construction permission granted by the Board in its meeting held on 03.09.2015.
10.	Captive Jetty by M/s Godrej – Ro Ro jetty for handling of ODC cargo at Dahej SEZ	Dahej	1	5.9	Construction permission granted by the Board in its meeting held on September 2015.
11.	Captive Jetty by M/s ISGEC – Ro Ro jetty for handling of ODC cargo at Dahej SEZ	Dahej	1	55	Construction permission granted by the Board in its meeting held on September 2015.
12.	Demolition of old existing jetty and reconstruction of new Capt. Of Ports jetty at Old Goa.	Panaji-Port Goa	*,	20.36	95% work of construction is completed. * The jetty will cater to low craft passenger vessel and other small crafts. No cargo will be discharged/ loaded at this jetty.
13.	Establishing a captive port at Parangipettai by M/s IL &FS Limited	Parangipettai Tamil Nadu	13 MMTPA	1349	Construction yet to commence.

14.	7 th Berth	Kakinada Deep Water Port, Andhra Pradesh	2.5	90	The Project is under progress.
15.	Development of Machilipatnam Deep Water Port under PPP model	Machilipatnam Port Andhra Pradesh	45- Phase-1 Stage-1 250-Master Plan	6778	Land acquisition for the project is in progress.
16.	Phase-2-Development of Krishnapatnam Port	Krishnapatnam Andhra Pradesh	44.30(Bulk & Gen Cargo) 3.30 MTEU (Container)	6600	Under construction
17.	East Coast Energy Pvt. Ltd.,	Meghavaram , Andhra Pradesh	Captive Port	2370	To be operational by the 1 st quarter of 2017
18.	Dhamra Chandbali Port Project	Dhamra Port, Orissa	25 MMT	3639	2 Berths Completed
19.	Rawa Port	Rawa	3.0	-	The Project is under operation.
20.	Development of Karaikal Port through private investment on BOT basis	Karaikal, Puducherry	Phase – 2A 21.5 Phase 2AE 6.5	1600 500	Phase -2A and 2AE Works are in progress.
21.	Development of Pondicherry Port through private investment on BOT basis	Pondicherry	Phase – I 16.2	2785	Arbitration ended with declaration of a NIL. Award in July 2016.
	Development of Pondicherry Port as a Feeder Port to Chennai Port,	Pondicherry	Phase - II 10.8 0.35	N.A NIL	A MoU was signed with Chennai Port Trust on 15.03.2017: Cargo handling operations likely to start in July 2017 soon after dredging works are completed.

22.	Construction of Captive Jetty at Manki in Honnavar Taluk of U.K District by M/s. Shree Renuka Energy Ltd., Belgaum	Manki Karnataka	2.0(3.5 in Future)	46	DPR Under Preparation GoK has leased 75000 Sq.M land on 30 years lease Period Statutory Clearances are yet to be obtained Manki Port limits declared.
23.	Anchorage operations at Honnavar Port by M/s Honnavar Port Pvt Ltd., Hyderabad	Honnavar, Karnataka	4.99	511.322	Gok has leased 137560 Sq.m of Port land on lease for 10/30 years Period. Some Statutory Clearances are yet to be obtained Port limits declared.DPR approved by the Government.

Source: Maritime States/Maritime Boards.

Note: The project status of Project name at S. No. from 1 to 15 and 20 to 23 is updated on 31st March, 2017.

Appendix – IV

Private Sector/Captive/Joint Venture Port Projects Under Formulation (Non-Major Ports)

Sl. No	Project	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
1.	GCPTL Proposed 2nd liquid jetty & allied infrastructure.	Dahej (Gujarat)	2.5-3.5 (estimated)	2500 (estimated)	Techno- Commercial Feasibility study is under progress.
2.	Sterling Port Limited	Dahej (Gujarat)	41 (Phase -I)	2501.8	Under Construction.
3.	Development of Chhara Port	Chhara (Gujarat)	8	1200	CA signed on 29.1.2015 Environment Clearance received. Financial closure is under process.
4.	Development of Modhawa port.	Modhawa (Gujarat)	Developer Under selection at GoG Level		
5.	Development of Khambhat port by M/s. IL & FS	Khambhat (Gujarat)	Kept on hold due to Kalpsar Project.		
6.	Development of Dholera port by Ms. JK Cement Group	Dholera (Gujarat)	Kept on hold due to Kalpsar Project.		
7.	Development of Nargol Port	Valsad (Gujarat)	20	4300 (Estimated)	DPR has been submitted which is under scrutiny. Environment Clearance is to be obtained by the Company.
8.	LNG Terminal by Swan Energy Ltd.	Jafrabad, Pipavav, Gujarat	5	4000	DPR approved. Environment Clearance received. Financial Closure & Concession Agreement is under discussion.
9.	Captive jetty expansion by M/s. Sanghi CEMENT Ltd.	Jakhau, Gujarat	2	150	Environmental clearance is awaited.
10.	Captive jetty by M/s Archan Chemical Budh Bunder	Jakhau, Gujarat	2	135	In principle approval has been granted by GoG. Studies & investigations for DPR are under progress.

Sl. No	Project	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
11.	Multi-purpose jetty at Sikka by Reliance Industries Ltd.	Sikka, (Gujarat)	15	1000	Studies are under progress.
12.	Captive jetty by M/s Universal Success Enterprise Ltd	(Bhogat) Gujarat)	5	126	Environmental clearance is awaited.
13.	M/s Sealand Port Pvt. Ltd (a group company of IL&FS) Coal Jetty & Multipurpose Jetty under Gujarat SEZ act	Nana Layja, Kutch, Gujarat	17	1000	In principle approval is granted by GoG (December 2014).
14.	M/s Sealand Port Pvt. Ltd (a group company of IL&FS) Multipurpose Jetty under Gujarat SEZ Act.	Nana Layja, Kutch, Gujarat	3	256	In principle approval is granted by GoG (September 2015)
15.	Captive jetty by M/s Reliance Ports Terminal Ltd. – 6 th oil tanker berth at Sikka –A2	Sikka, Gujarat	7	180	In principle approval is granted by Board of GMB (June 2015)
16.	SPM no. 2 at Hazira by Reliance Industry Ltd.	Hazira,Gujarat	4	100	Studies are under progress.
17.	Redi Port Ltd	Redi Port Maharashtra	33.38 MTPA & 1.74 m/EU	3634	Awaiting Environmental Clearance from MOEF
18.	Vijaydurg Ports Pvt Ltd	Vijaydurg Port, Maharashtra	78	4000	TORs received from MOEF
19.	Rewas Port Ltd	Redi Port Maharashtra	Phase1 - 66m.ton	Phase1 7000	
			Phase1! - 185 m.ton		Permission for Right of Way yet not received from MbPT
			Phase111 – over 400 m.ton		

Sl. No	Project	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
20.	Construction of Terminal building	Panji Port	*	28.33	EFC approval has been obtained. *This is integral part of Capt. of ports jetty at Panji
21.	Captive port facility by M/s. Udangudi Power Corporation Ltd.	Udangudi Thoothukudi Tamil Nadu	6	9083	Port has been notified. Statutory clearances. Financial closure pending
22.	Captive port facility by M/s. Coastal Tamil Nadu Power Ltd.	Cheyyur Kancheepuram Tamil Nadu	13	1832	Notification of Port limits under process
23.	Captive port by M/s. Chettinad Power Corporation Ltd.	Tharangambadi Taluk Nagapattinam Tamil Nadu	3.5	1000	Port has been notified. Development under process.
24.	Captive port permitted to handled other commercial cargo by M/s. Nagarjuna Oil Corporation Ltd.	Thiruchopuram in Cuddalore Tamil Nadu	9.3	384 (Captive facility only)	Port has been notified. Development has temporarily been stopped due to financial issues.
25.	Development of Bhavanapadu Port under PPP model	Bhavanapadu Port, Andhra Pradesh	30.57	2362.4	M/s. Aadani Ports & SEZ Ltd. Is the lowest bidder for development of this project. The same is under examination of the Government of AP.
26.	Nakkapalli Port	Nakkapalli Andhra Pradesh	Captive Port 4.00 MMT	479	Investigation studies are in progress.
27.	2nd stage Development of Karwar Port	Karwar Karnataka	20	199.4	Issue of bid documents is under progress.
28.	Development of Modern Sea Port at Tadri.	Tadri Karnataka	34.40	380	IDD Nominated KSIIDC as nodal agency. Preparation of DPR is under progress.
29.	Development of Honnavar Port	Honnavar Karnataka	2	20	M/s. Honnavar Port Ltd., has submitted DPR for the approval of the Government.

Sl. No	Project	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
30.	Captive Port at Manki Port	Manki Karnataka	1	4.6	M/s. Renuka Sugar is in the process of preparing DPR for construction of captive jetty.
31.	Development of Port and setting up trade warehousing Zone at Belekeri.	Belekeri Karnataka	10	172	i-deck already prepared RFP, pre-feasibility report and Draft Concessional agreement.
32.	Development of captive jetty at Pavinkurva, Kumta	Pavinkurve Port(Newly declared port)	10	160	The proposal is under consideration.
33.	Development of Bulk Liquid Berth for handling L.N.G.	Karaikal Port Puducherry	5.0	1948	Applied for Environmental Clearance.
34.	Passenger cum Container Terminal	Kollam Port, Kerala		14	Construction work is going on.

Source: Maritime States/Maritime Boards.

Note: The project status of Project name at S. No. from 1 to 16, 20, 25 to 28 and 31 to 34 is updated on 31st March, 2017.

Outlay And Expenditure - Port Sector (Central)

(Rs. In crore)

Port	Annual Plan (2010-11)		Annual Plan (2011-12)		Annual Plan (2012-13)		Annual Plan (2013-14)		Annual Plan (2014-15)		Annual Plan (2015-16)		Annual Plan (2016-17)	
	App. Outlay	Actual Exp.	App. Outlay	Actual Exp.	App. Outlay	Actual Exp.	App. Outlay	Actual Exp.	App. Outlay	Actual	App. Outlay	Actual	App. Outlay	Actual Exp. Upto Sept, 2016
1	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Kolkata (a)	50.88	49.76	63.73	21.29	28.45	17.34	38.03	5.86	43.75	23.04	46.00	7.73	51.09	16.08
Mumbai	179.58	116.76	176.57	142.05	279.79	149.30	427.60	24.87	50.00	76.53	230.79	31.51	300.62	67.78
JNPT	89.61	38.24	153.69	140.52	341.18	240.21	1559.10	137.58	647.54	294.82	235.85	83.9&&	300.00	110.74
Chennai	243.00	184.46	136.00	4.44	145.00	81.75	107.00	9.20	41.99	4.11	39.00	33.30	50.00	50.64
Cochin	259.35	160.86	115.08	92.21	93.45	78.47	123.05	3.40	42.84	17.20	3.00	6.81	33.31	27.46
Visakhapatnam	151.00	121.19	190.00	113.45	102.71	57.92	182.34	26.07	306.88	274.69	414.01	23.53	231.61	112.46
Kandla	45.66	52.70	92.27	52.82	166.89	138.44	145.45	28.30	100.00	324.47	308.92	5.26	132.97	30.58
Mormugao	66.29	71.52	108.93	69.17	71.36	46.95	110.00	24.75	82.87	61.17	13.76	3.68	244.81	29.55
Paradip	166.21	81.26	70.00	74.80	127.31	73.73	96.91	55.65	132.60	85.10	22.50	68.14	35.00	49.94
New Mangalore	31.00	24.56	36.00	38.45	36.00	45.50	75.00	8.04	50.00	67.94	64.35	17.83	71.05	57.08
Tuticorin	90.94	172.08	291.97	369.65	201.42	42.63	547.82	3.19	600.85	34.09	422.33	90.17	160.63	21.55
Ennore Port Ltd.	95.00	70.12	60.00	61.92	73.50	80.03	600.00	28.38	220.00	62.50	200.00	99.81	250.00	327.19
Sethusamudram Ship Canal Project	10.00	6.02	10.01	8.51	4.00	2.12*	6.00	1.42*	0.50	2.94*	477.5	0.69*	0.00	0.00
WEB Based EDI Port Community System	4.88	4.46	2.38	2.01	2.00	2.00	1.00	##	0.50	0.00	3.85	0.00	3.00	0.00
Others (b)	362.86	223.31	673.09	518.08	901.87	579.43	635.00	318.98	464.80	38.01	704.38	48.57	535.23	46.25
Survey Vessels	15.00	15.00	15.00	15.00	0.00	0.00##	0.00	0.00##	0.00	0.00	0.00	0.00	0.00	0.00
Total	1861.26	1392.30	2194.72	1724.37	2574.93	1633.70	4654.30	674.27	2785.12	1366.62	3186.24	520.93	2399.32	947.30

(a) Includes Haldia and RR Works.

(b) Includes DCI, ALHW, R&D Studies, Sagar Mala, Dev. of Non-Major Ports, IT for M/o Shipping, Coastal shipping Berths, Pollution cess, River Regulatory measures etc.

* The amount is received as equity from Govt. of India and other stakeholders.

&& -Rs.66.63 advance paid earlier now Transferred to revenue

App.Outlay: Approved Outlay

##- Not Available

Source : Annual Plan - Port Sector (Deptt. of Shipping)/IPA

Commodity-wise Traffic Handled at Major Ports

(000 Tonnes)											
Port	Period	POL & its Products	Iron Ore	Thermal Coal	Coking Coal	Ferti.& FRM (Dry)	Food grain	Container	TEUs	Others	Total
1	2	3	4	5	6	7	8	9	10	11	12
Kolkata	2013-14	717	179	211	262	39	27	7063	449	4377	12875
	2014-15	626	133	1410	270	147	5	8110	528	4582	15283
	2015-16	664	0	0	201	76	14	9263	578	6564	16782
	2016-17(P)	904	0	0	0	20	352	9887	636	5010	16173
Haldia	2013-14	4572	2170	1598	5350	559	0	2230	113	12032	28511
	2014-15	3618	2338	1238	6005	797	0	1958	102	15056	31010
	2015-16	7078	869	1552	5722	638	0	1376	85	16272	33507
	2016-17(P)	6785	1159	1818	5523	467	0	2467	136	15922	34141
Paradip	2013-14	17602	5593	24743	6872	4054	0	99	9	9040	68003
	2014-15	17976	3499	30063	7645	4429	0	67	4	7332	71011
	2015-16	20567	2889	31250	8221	4361	0	121	5	8977	76386
	2016-17(P)	27696	11045	25845	10162	4067	0	37	2	10103	88955
Visakhapatnam	2013-14	12960	13032	2744	6928	2614	817	4916	262	14493	58504
	2014-15	13129	8365	2779	6074	2558	75	4372	248	20652	58004
	2015-16	16945	6086	3404	5108	2795	126	5145	293	17424	57033
	2016-17(P)	16604	11620	3471	4335	2662	551	6428	367	15349	61020
Chennai	2013-14	12877	0	0	0	415	306	28330	1468	9177	51105
	2014-15	12659	146	0	0	542	37	29945	1552	9212	52541
	2015-16	11892	0	0	0	260	0	30207	1565	7699	50058
	2016-17(P)	12208	0	0	0	268	665	28850	1495	8223	50214
Kamarajar	2013-14	1275	0	22482	0	0	0	0	0	3580	27337
	2014-15	1894	0	24222	0	0	0	0	0	4135	30251
	2015-16	3883	0	25537	75	0	0	1	0	2710	32206
	2016-17(P)	4059	0	23018	79	0	0	1	0	2863	30020
Chidambaranar	2013-14	299	0	6644	0	1178	49	10129	508	10343	28642
	2014-15	366	46	8652	0	1491	59	11034	560	10766	32414
	2015-16	693	86	11491	0	1511	371	12388	612	10309	36849
	2016-17(P)	667	0	10824	0	1641	1906	12991	642	10434	38463
Cochin	2013-14	14289	0	0	0	307	0	4785	343	1505	20886
	2014-15	14016	0	0	98	446	0	5246	366	1789	21595
	2015-16	13775	0	88	0	252	95	5785	419	2103	22098
	2016-17(P)	16223	0	44	0	252	174	6840	460	1474	25007
New Mangalore	2013-14	22944	3012	2928	5420	504	118	747	50	3692	39365
	2014-15	21409	1557	2726	5452	704	7	920	63	3791	36566
	2015-16	23931	507	3319	0	811	27	1105	76	5882	35582
	2016-17(P)	25104	2928	3533	0	489	248	1411	95	6232	39945
Mormugao	2013-14	527	44	0	7518	179	44	236	19	3191	11739
	2014-15	571	758	2000	6569	227	0	312	25	4274	14711
	2015-16	559	3965	3727	7808	223	0	345	26	4149	20776
	2016-17(P)	627	15053	2514	8466	199	0	400	30	5920	33179
J. L. Nehru	2013-14	4107	0	0	0	0	0	55235	4162	2991	62333
	2014-15	3330	0	0	0	0	0	56933	4467	3538	63801
	2015-16	4094	0	0	0	0	0	56790	4544	3143	64027
	2016-17(P)	4490	0	0	0	0	0	54530	4500	3131	62151
Mumbai	2013-14	35980	0	4221	0	302	703	449	41	17529	59184
	2014-15	35837	0	4304	0	448	683	544	45	19844	61660
	2015-16	36274	0	3451	0	439	961	537	43	19448	61110
	2016-17(P)	36649	0	2445	0	283	1601	558	42	21513	63049
Kandla	2013-14	52906	586	6080	270	3633	2732	453	29	20345	87005
	2014-15	55589	1160	9725	242	4502	2223	0	0	19056	92497
	2015-16	55586	952	14784	217	4532	812	56	3	23112	100051
	2016-17(P)	60340	735	15063	496	3656	830	175	10	24147	105442
All Ports	2013-14	181055	24616	71651	32620	13784	4796	114672	7453	112295	555489
	2014-15	181020	18002	87119	32355	16291	3089	119441	7960	124027	581344
	2015-16(P)	195941	15354	98603	27352	15898	2406	123119	8249	127792	606465
	2016-17(P)	212356	42540	88575	29061	14004	6327	124575	8415	130321	647759

P : Provisional

Source: BPS and Major Ports and Indian Ports Association.

Annex-III

Commodity Composition of Traffic Handled at Non- Major Ports.

(000 Tons)									
Maritime Status / UTs	Period	POL	Iron Ore	Building Material	Coal	Fertiliser & FRM	Container	Others	Total
1	2	3	4	5	6	7	8	9	10
Gujarat	2012-13	165137	7636	8408	54337	6418	24618	21263	287817
	2013-14	165578	5169	10002	65759	5950	37043	20444	309945
	2014-15	163631	5632	8925	79987	7529	43677	26714	336095
	2015-16	174875	7511	9075	65903	10331	47930	24153	339778
	2016-17	183092	9378	9622	62130	6998	53124	21395	345739
Maharashtra	2012-13	397	7818	2042	10396	84	0	3461	24198
	2013-14	1123	7615	1998	9715	140	0	4073	24664
	2014-15	1248	8824	2120	10924	171	0	4008	27295
	2015-16	3225	7611	2243	12173	151	0	3446	28849
	2016-17	0	15093	1937	10667	0	0	7197	34894
Andhra pradesh	2012-13	1762	977	1111	30854	5135	0	11972	51811
	2013-14	1707	1475	1550	35957	5455	0	12548	58692
	2014-15	1403	10526	2492	48662	5362	1382	13591	83418
	2015-16	1428	1620	1978	46203	5956	1807	13741	72733
	2016-17	1347	2966	1039	39394	4963	4246	15647	69602
Goa	2012-13	0	3276	0	113	0	0	0	3389
	2013-14	0	0	0	284	0	0	0	284
	2014-15	0	347	1	412	0	0	0	760
	2015-16	0	260	0	170	0	0	0	430
	2016-17	0	102	0	15	0	0	0	117
Tamil Nadu	2012-13	631	0	6	0	252	0	44	933
	2013-14	788	0	27	0	41	0	10	866
	2014-15	419	0	1	0	292	0	113	825
	2015-16	546	0	4	0	30	0	276	856
	2016-17	603	0	398	0	36	0	133	1170
Karnataka	2012-13	38	0	0	5	52	0	515	610
	2013-14	38	0	0	6	75	0	390	509
	2014-15	40	0	85	0	47	0	479	651
	2015-16	82	0	81	0	57	0	615	835
	2016-17	332	0	74	0	41	0	244	691
Others states / Uts #	2012-13	600	2148	386	13559	607	291	1574	19165
	2013-14	543	4079	601	14600	349	309	1529	22010
	2014-15	537	1465	600	16752	551	430	1509	21844
	2015-16	516	381	824	17425	421	375	2567	22509
	2016-17	513	4922	1605	20610	203	442	4818	33113
All Non Major PORTS	2012-13	168565	21855	11953	109264	12548	24909	38829	387923
	2013-14	169777	18338	14178	126321	12010	37352	38994	416970
	2014-15	167278	26794	14224	156737	13952	45489	46414	470888
	2015-16	180672	17383	14205	141874	16946	50112	44798	465989
	2016-17	185887	32461	14675	132816	12241	57812	49434	485326
# : Includes Pondicherry, Orissa, Kerala, Andaman & Nicobar Islands and Lakshadweep Islands. No traffic was handled at ports, Daman & Diu.									

Commodity-Wise Capacity Available at Major Ports

(In Million Tonnes)

Commodities	KDS	HDC	PPT	VPT	EPL	ChPT	V.O.C.	CoPT	NMPT	MoPT	MbPT	KPT	JNPT	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
POL														
As on 31.3.13	4.50	17.00	43.00	17.65	3.00	17.67	2.30	19.01	49.17	1.50	32.00	66.60	5.50	278.90
As on 31.3.14	4.50	17.00	43.00	25.65	3.00	17.67	2.30	24.01	49.17	1.50	32.00	66.60	5.50	291.90
As on 31.3.15	4.50	17.00	53.00	27.49	4.00	17.67	2.30	24.01	49.17	1.50	32.00	66.60	6.50	305.74
As on 31.3.16	4.50	17.00	54.50	27.49	4.00	17.67	3.15	24.01	49.17	1.50	34.50	70.82	6.50	314.81
As on 31.3.17	9.10	18.00	54.50	27.49	4.00	17.67	3.15	30.26	49.17	1.50	44.50	89.02	6.50	354.86
Iron Ore														
As on 31.3.13	-	6.00	4.50	12.50	6.00	8.00	-	-	7.50	27.50	-	-	-	72.00
As on 31.3.14	-	6.00	4.50	12.50	6.00	8.00	-	-	7.50	27.50	-	-	-	72.00
As on 31.3.15	-	6.00	4.50	12.50	6.00	8.00	-	-	7.50	27.50	-	-	-	72.00
As on 31.3.16	-	6.00	6.39	12.50	6.00	8.00	-	-	7.50	27.50	-	-	-	73.89
As on 31.3.17	-	6.00	6.39	12.50	6.00	8.00	-	-	7.50	27.50	-	-	-	73.89
Coal														
As on 31.3.13	-	7.00	20.00	-	21.00	-	12.55	-	5.40	-	-	-	-	65.95
As on 31.3.14	-	7.00	20.00	-	21.00	-	12.55	-	5.40	-	-	-	-	65.95
As on 31.3.15	-	7.00	21.00	-	24.00	-	12.55	-	5.40	4.61	-	-	-	74.56
As on 31.3.16	-	9.00	21.00	-	32.00	-	24.18	-	5.40	8.94	-	-	-	100.52
As on 31.3.17	-	10.00	32.00	-	32.00	-	26.82	-	7.67	8.94	-	-	-	117.43
Fertiliser														
As on 31.3.13	-	-	7.50	1.00	-	-	-	0.80	-	-	-	-	-	9.30
As on 31.3.14	-	-	7.50	1.00	-	-	-	0.80	-	-	-	2.00	-	11.30
As on 31.3.15	-	-	7.50	1.00	-	-	-	0.80	-	-	-	2.00	-	11.30
As on 31.3.16	-	-	7.50	1.87	-	-	-	0.80	-	-	-	2.00	-	12.17
As on 31.3.17	-	-	8.00	1.87	-	-	-	1.13	-	-	-	2.00	-	13.00
Break-Bulk Cargo														
As on 31.3.13	6.74	12.75	27.30	33.50	1.00	17.92	13.49	12.35	14.70	7.40	11.53	19.42	0.90	179.00
As on 31.3.14	6.74	15.75	33.80	47.09	1.00	17.92	22.21	12.35	15.70	7.65	11.53	26.52 *	0.90	219.16
As on 31.3.15	6.74	15.75	33.80	53.09	3.00	17.92	24.70	12.35	15.70	10.15	11.53	45.63	0.90	251.26
As on 31.3.16	6.74	29.89	37.55	59.69	3.00	22.92	24.70	12.35	15.70	10.85	14.83	51.04	0.90	290.16
As on 31.3.17	7.25	31.89	42.55	62.69	5.00	22.92	28.70	12.68	23.29	12.10	20.83	52.04	0.90	322.84
Container														
As on 31.3.13	5.90	4.00	-	2.68	-	42.00	5.00	12.50	-	-	1.00	7.20	59.48 @	139.76
As on 31.3.14	5.90	4.00	-	2.68	-	42.45	5.00	12.50	-	-	1.00	7.20	59.48 @	140.21
As on 31.3.15	9.86	4.00	-	2.68	-	42.45	5.00	12.50	-	-	1.00	7.20	71.97@	156.66
As on 31.3.16	9.86	4.00	-	6.20	-	44.85	7.23	12.50	-	-	-	7.20	81.97	173.81
As on 31.3.17	9.86	4.00	-	6.20	10.00	44.85	7.23	12.50	-	-	-	7.20	81.97	183.81
TOTAL														
As on 31.3.13	17.14	46.75	102.30	67.33	31.00	85.59	33.34	44.66	76.77	36.40	44.53	93.22	65.88	744.91
As on 31.3.14	17.14	49.75	108.80	88.92	31.00	86.04	42.06	49.66	77.77	36.65	44.53	102.32	65.88	800.52
As on 31.3.15	21.10	49.75	119.80	96.76	37.00	86.04	44.55	49.66	77.77	43.76	44.53	121.43	79.37	871.52
As on 31.3.16	21.10	65.89	126.94	107.75	45.00	93.44	59.26	49.66	77.77	48.79	49.33	131.06	89.37	965.36
As on 31.3.17	26.21	69.89	143.44	110.75	57.00	93.44	65.90	56.57	87.63	50.04	65.33	150.26	89.37	1065.83

Figure in the parenthesis indicate the number of berths. BJ Barge jetties, T-Transhippers, A-Anchorage, SBM-Single Buoy Mooring

@ : Capacity of JNP Container Terminal (3berths), NSICT (2berths), GTIPL (3berths) and shallow water berth (1 no) has been taken as 21.57 MT, 17.40 MT, 31.80 MT and 1.20 MT respectively.

Capacity of one shallow water berth at JNPT is 0.90 MT for dry bulk cargo.

Capacity of Iron Ore berth has been taken as 6.0MT at Ennore Poert. After full fledged commissioning, balance capacity of 6.0 MT will be added.

Only BPS berth of Mumbai Port is considered as dedicated container berth. Assessed capacity of BPS (Dedicated) container berth of Mumbai Port is 1.0MT. Berth No.6, 7/8 ID are used as holding berths of MbPT crafts and no capacity has been accounted

* After accounting the capacity due to productivity, addition of berth No. 13 & 15,MHC, Floating cranes

Source : Development Wing - Department of Shipping.