

भारत के पत्तन क्षेत्र का अद्यतन
UPDATE ON INDIAN PORT SECTOR
(31.03.2018)



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

गोपाल कृष्ण
GOPAL KRISHNA



सचिव
SECRETARY
भारत सरकार
GOVERNMENT OF INDIA
पोत परिवहन मंत्रालय
MINISTRY OF SHIPPING

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 2018**) is thirty first in the series of the publication "*Update on Indian Port Sector*". The last issue contained data up to September, 2017.

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, 2018.** 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.

New Delhi
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Vikram 5/5/18
Gopal Krishna

UPDATE ON INDIAN PORT SECTOR (UP TO 31.03.2018)

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Officers associated with this publication

**Mr. M.M. Hasija
Adviser (Statistics)**

**Smt. Priyanka Kulshreshtha
Director**

**Mr. Santosh Kumar Gupta
Deputy Director**

**Mr. Jagdish Chand
Senior Statistical Officer**

**Mrs. Savita Mittal
Junior Investigator**

**Mr. Gopal Yadav
Junior Statistical Officer**

1. RECENT TRENDS IN CARGO TRAFFIC AND POLICY INITIATIVES

1.1 INDIA AND WORLD ECONOMY

1.1.1 The upswing in global economic activity is strengthening. The Global growth was 3.2% in 2016 and reached to 3.8% in 2017. Global growth is expected to tick up to 3.9 percent this year and next, supported by strong momentum, favorable market sentiment, accommodative financial conditions, and the domestic and international repercussions of expansionary fiscal policy in the United States. Over the medium term, global growth is projected to decline to about 3.7 percent. Once the cyclical upswing and US fiscal stimulus have run their course, prospects for advanced economies remain subdued, given their slow potential growth. In emerging market and developing economies, in contrast, growth will remain close to its 2018–19 level as the gradual recovery in commodity exporters and a projected increase in India’s growth provide some offset to China’s gradual slowdown and emerging Europe’s return to its lower-trend growth rate. Nevertheless, 40 emerging market and developing economies are projected to grow more slowly in per capita terms than advanced economies, failing to narrow income gaps vis-à-vis the group of more prosperous countries (International Monetary Fund, April, 2018).

1.1.2 Economic activity in 2017 ended on a high note—growth in the second half of the year was above 4 percent, the strongest since the second half of 2010, supported by a recovery in investment. Outcomes exceeded the October 2017 *World Economic Outlook* forecasts in the euro area, Japan, the United States, and China, and continued to improve gradually in commodity exporters. However, many countries inflation remains weak, indicating that slack has yet to be eliminated, and prospects for growth in GDP per capita are held back by weak productivity growth and rising old-age dependency ratios. Prospects for many emerging market and developing economies in sub-Saharan Africa, the Middle East, and Latin America are lackluster, with several experiencing stagnant per capita incomes. Financial conditions remain supportive, despite the recent volatility in equity markets and increases in bond yields following signs of firming inflation in advanced economies.

1.1.3 Growth in China and other parts of emerging Asia remains strong, and the still-difficult conditions faced by several commodity exporters in Latin America, the Commonwealth of Independent States, and sub-Saharan Africa show some signs of improvement. In advanced

economies, the 2017 growth pickup is broad based, with stronger activity in the United States and Canada, the euro area, and Japan. Prospects for medium-term growth are more subdued, as demographic factors and weak productivity weigh on potential growth. Growth prospects for emerging and developing economies are marked up by 0.1 percentage point for both 2017 and 2018 relative to April, primarily owing to a stronger growth projection for China. The 2017 forecast (6.8 percent, against 6.6 percent in April) of China reflects stronger growth outturns in the first half of 2017 as well as more buoyant external demand. For 2018, the revision mainly reflects an expectation that the authorities will maintain a sufficiently expansionary policy mix to meet their target of doubling real GDP between 2010 and 2020. Growth forecasts have also been marked up for emerging Europe for 2017, reflecting stronger growth in Turkey and other countries in the region, for Russia for 2017 and 2018, and Brazil in 2017.

1.1.4 Among advanced economies, domestic demand and output grew faster in the first half of 2017 than in the second half of 2016. In the United States, weakness in consumption in the first quarter turned out to be temporary, while business investment continued to strengthen, partly reflecting a recovery in the energy sector. In the euro area and Japan, stronger private consumption, investment, and external demand bolstered overall growth momentum in the first half of the year. Growth in most of the other advanced economies, with the notable exception of the United Kingdom, picked up in the first half of 2017 from its pace in the second half of 2016, with both domestic and external demand contributing.

1.1.5 Among emerging market and developing economies, higher domestic demand in China and continued recovery in key emerging market economies supported growth in the first half of 2017. India's economic outlook projections for the year 2017 and 2018 were 6.7% and 7.4% (International Monetary Fund report, October, 2017). But in India, growth momentum slowed in 2017-18, reflecting the lingering impact of the authorities' currency exchange initiative as well as uncertainty related to the midyear introduction of the country-wide Goods and Services Tax. The latter move, which promises the unification of India's vast domestic market, is among several key structural reforms under implementation that are expected to help push growth above 8 percent in the medium term.

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	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (P)
Trends in India's Select: Macro Parameters							
I. Total Cargo	3.2	2.2	4.1	8.2	1.9	5.8	6.6
(a) Major Ports	-1.7	-2.6	1.8	4.7	4.2	7.0	4.8
(b) Non-Major Ports	12.2	9.7	7.5	12.9	-1.0	4.1	9.1
II. GVA overall	n.a	n.a	6.6	6.0	8.1	7.1	6.5
(a) Agriculture	n.a	n.a	3.7	1.7	0.6	6.3	3.4
(b) Industry	n.a	n.a	4.5	4.5	9.3	6.8	5.5
(c) Services	n.a	n.a	9.1	8.4	9.7	7.5	7.9
III. Foreign Trade							
(a) Export in \$ value	21.8	-1.8	4.7	-1.2	-15.9	4.7	9.8
(b) Import in \$ value	32.3	0.3	-8.3	-0.6	-15.3	-0.2	19.6
Trends in Select: Global Indicators							
IV. World Output	4.3	3.5	3.5	3.6	3.5	3.2	3.8
(a) Advanced Economies	1.7	1.2	1.3	2.1	2.3	1.7	2.3
(b) Developing Economies	6.4	5.4	5.1	4.7	4.3	4.3	4.8
V. World Economic Growth	2.8	2.2	2.2	2.5	2.6	2.2	2.6
(a) Advanced Economies	1.4	1.1	1.1	1.7	2.2	1.7	1.9
(b) Developing Economies	6.0	4.7	4.6	4.4	3.8	3.6	4.2
(c) Transition Economies	4.7	3.3	2.0	0.9	-2.2	0.4	1.8
VI. World Trade Volume (Goods)	7.1	3.0	3.5	3.8	2.7	2.3	4.9
VII. Export Volume growth (Goods)							
(a) Advanced Economies	6.0	2.8	3.1	3.9	3.8	2.0	4.2
(b) Developing Economies	8.7	3.5	4.8	3.2	1.5	2.6	6.4
VIII. Import Volume growth (Goods)							
(a) Advanced Economies	5.1	1.7	2.3	3.9	4.6	2.7	4.0
(b) Developing Economies	11.5	5.3	5.2	4.2	-0.9	1.8	6.4
IX. World Seaborne Trade*	4.3	4.6	3.4	4.2	2.0	1.8	2.6
(a) Goods Loaded	4.5	4.7	3.4	3.4	2.1	1.8	2.6
(b) Goods Unloaded	4.2	4.4	3.4	3.5	2.0	1.8	2.6
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 31.05.2018. Comparable figures for the back series are not available. Data for 2017-18 is provisional estimate							
III. Based on Department of Commerce, DGCI&S and RBI Bulletin							
IV, VI, VII & VIII Based on World Economic Outlook, April, 2018, IMF;							
V & IX. Based on Review of Maritime Transport, 2017 (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							

1.1.6 The growth rate for emerging market and developing economies is forecast to rise to 4.6 percent in 2017, 4.9 percent in 2018, and about 5 percent over the medium term. In per capita terms, growth rates are about 1.3 percentage points lower, but substantially above the per capita growth rate for advanced economies (1.4 percent, on average, during 2017–22), implying a gradual convergence in GDP per capita between the two country groups. The projected aggregate growth rate over 2017–22 is sustained by fast growth in the two largest countries, China and India, which account for more than 40 percent of GDP (whether measured at purchasing power parity or market rates) and more than 40 percent of the population of emerging market and developing economies.

Selected Emerging Trends Affecting Seaborne Trade

1.1.7 World merchandise trade underperformed in 2016 with volumes (that is, trade in value terms but adjusted to account for inflation and exchange rate movements), expanding by a modest 1.9 per cent (average growth rate of imports and exports), up from 1.7 per cent in 2015. Weaker trade is both a cause and an effect of a slowdown in global economic activity in view of the strong linkages between investment, growth and trade. World export volumes and import demand both accelerated in 2016, compared with 2015. Exports expanded at the faster rate of 1.7 per cent up from 1.4 per cent in 2015, while the import demand increased by 2.1 per cent, up from 1.9 per cent in 2015.

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 line with developments in the world economy, demand for shipping services improved in 2016, albeit only moderately. World seaborne trade expanded by 2.6 per cent in 2017, up from 1.8 per cent in 2016, which is below the historical average of 3 per cent recorded over the past four decades. Goods total loaded volumes reached 10.3 billion tons, reflecting the addition of over 260 million tons of cargo, about half of which was attributed to tanker (for oil and gases) trade. Strong import demand in China in 2016 continued to support world maritime seaborne trade, although overall growth was offset by limited expansion in the import demand of other developing regions. International Seaborne Trade loaded during last 16 years may be seen in **Table 2 (a)**.

Table 2 (a): Developments in International Seaborne Trade				
(Million Tonnes Loaded)				
Year	Oil and gas	Main Bulk#	Dry cargo other than main bulks 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	8785
2012	2841	2742	3614	9197
2013	2829	2923	3762	9514
2014	2825	2985	4033	9843
2015	2932	3121	3971	10023
2016	3055	3172	4059	10287
# Iron ore, grain, coal, bauxite/alumina and phosphate rock.				
Source: Review of Maritime Transport, 2017, UNCTAD				

1.1.10 Seaborne dry cargo shipments totalled 7.23 billion tons in 2016, reflecting an increase of 2.0% over the previous year (**Table 2 (a)**). The share of the major bulk commodities (coal, iron ore, grain and bauxite/alumina/phosphate rock) amounted to about 43.9% of total dry cargo volumes, followed by containerized trade (23.8%) and minor bulks (23.7%). Remaining

volumes were accounted for by “other” dry cargo, namely break-bulk shipments. In 2016, the major bulk commodities increased by 1.6%, while other dry cargo expanded by 2.2%.

1.1.11 In 2016, distance-adjusted seaborne trade continued to grow but at a slightly faster pace than seaborne trade in tons. Despite the particularly weak import demand and limited exports in many economies, developing economies as a group continued, nevertheless, to account for most of world seaborne cargo shipments in 2016. Developing economies accounted for 59 per cent of world goods loaded (outbound/exports) and nearly two thirds of goods unloaded (inbound/imports), respectively. Since the 1970s, participation of developing economies in world seaborne trade has shifted, reflecting their rise as major importers and exporters. For over four decades, developing economies’ share of goods unloaded has increased significantly, while their share of goods loaded has also increased, albeit at a slower rate, before stabilizing at about 60 per cent since 2010.

Developing economies are no longer only a source of supply for raw materials and fossil fuel energy but are also key players in globalized manufacturing processes and a growing source of consumption import demand, including of raw materials, such as oil. In terms of geographical influence, Asia remained the main global cargo loading and unloading area in 2016.

Seaborne Trade by Cargo Type

Crude Oil and Petroleum products

1.1.12 In 2016, world seaborne tanker trade – crude oil, refined petroleum products and gas – continued to grow amid a surplus in oil market supply and low oil prices. Total volumes reached 3.1 billion tons, reflecting an increase of 4.2 per cent over the previous year. Oil imports for inventory building continued unabated for crude oil and refined oil products and resulted in record high storage levels. These positive trends were underpinned by strong demand for crude oil imports in China, India and the United States and a high level of exported petroleum products from China and India. An overview of global players in oil and gas production, consumption and volumes shipped in 2016, is presented in **table 2(b)**.

The import demand in China, India and United States; for the second consecutive year; crude oil shipments expanded by 4.3 per cent in 2016, reaching an estimated total volume of 1.8 billion tons. Imports into North America increased, reflecting reduced domestic production, while growing imports into China reflected additions to refinery capacity. Exports from Western Asia rose steadily, owing to growing shipments from the Islamic Republic of Iran following the end of economic sanctions. In the United States, shipments of crude oil increased as the 40-year ban on oil exports was lifted. In Nigeria, exports dropped sharply, owing to disruptions in production.

**Table 2(b) Major producers and consumption of Oil and Natural gas, 2016
(World market share in percentage)**

Production					
S. No.	World	World Oil Production	Oil Refinery Capacities	World Natural Gas Production	
1	Africa		9%	4%	6%
2	Asia Pacific		9%	34%	16%
3	Developing America		11%	7%	6%
4	Europe		4%	15%	6%
5	North America		18%	21%	26%
6	Transition Economies		15%	9%	22%
7	Western Asia		34%	10%	18%
	Total		100%	100%	100%

Consumption					
S. No.	World	World Oil Consumption	Oil Refinery Throughout	World Natural Gas Consumption	
1	Africa		4%	2%	4%
2	Asia Pacific		35%	34%	20%
3	Developing America		9%	7%	8%
4	Europe		14%	15%	12%
5	North America		23%	22%	25%
6	Transition Economies		4%	9%	16%
7	Western Asia		11%	11%	15%
	Total		100%	100%	100%

Source: UNCTAD secretariat calculations based on the data from British Petroleum, 2017

1.1.13 Together, refined oil products and gas trade volumes expanded by 4 per cent, taking total shipments to 1.2 billion tons in 2016. Demand for refined oil products was generally supported by a low oil price environment, with growth driven by increased exports from Western Asia, China and India, as well as by a recovery in Europe's import demand. While demand for refined oil products grew in China, India and the United States, weak economic growth in Japan and developing America, has nevertheless, constrained global imports of refined oil products. Volumes were supported by stronger gasoline demand, while diesel demand declined as a result of weak global industrial activity. Only India, the Republic of Korea and Europe recorded strong increases in diesel oil demand, mostly for transportation use.

Natural Gas and liquefied gases

1.1.14 With regard to gas trade, liquefied natural gas shipments were estimated to have expanded by 7.2 percent in 2016, with shipments reaching 268 million tons (Clarksons Research, 2017b). Expansion was led by increased exports from Australia and the United States, which saw new liquefaction terminals come online. Volumes of imports into China, India and other Asian developing economies, notably in Western Asia, grew steadily. These positive developments helped offset declines in the import volumes of the Republic of Korea and Japan.

Liquefied petroleum gas trade rose by 10.1 percent, with volumes reaching 87 million tons in 2016 (Clarksons Research, 2017b). Volumes were supported by the continued strong expansion in exports from the United States and Western Asia and robust import demand in China and India. The growing needs of the petrochemical industry and the household sector were the primary source of demand in both countries. For the liquefied petroleum gas sector, the opening in June 2016 of the expanded Panama Canal allowed for the passage of gas carriers, thus shortening the distance travelled on the United States–China route as compared with the Cape of Good Hope.

Dry Cargo Trades

Dry Bulk Shipments: Major and minor dry bulks

1.1.15 Overall weak global investment and industrial activity have weighted down on the dry bulk trade, which continues to be heavily dependent on developments in China. In 2016, world demand for dry bulk commodities grew at a modest rate of 1.3 percent, taking total shipments to 4.9

billion tons. China remained the primary source of growth, owing to the positive impact of the stimulus measures introduced during the year. Within the dry bulk segment, trade in the major bulk commodities increased by 1.6 per cent. Iron ore trade showed the strongest growth with volumes expanding by 3.4 per cent, reaching 1.4 billion tons in 2016. Imports into China; increased by over 7 per cent, reflecting the country's steel output growth, falling domestic iron ore production, growing stockpiling activity and access to affordable, high-quality iron ore from Australia and Brazil. In contrast, iron ore imports into Europe and other Asian countries declined, in the wake of low steel prices.

1.1.16 Coal trade diminished in 2016, owing to flat demand for coal. Total volumes were estimated at 1.14 billion tons, with both coking coal and thermal coal volumes stagnating at 249 million tons and 890 million tons, respectively. A marginal increase in coking coal volumes reflected higher import demand in China and Japan. These were offset by declining import volumes in India, the Republic of Korea and Europe. Declining imports of thermal coal into India, Japan, the Republic of Korea and Europe were offset by a 4 per cent increase in other Asian countries imports, notably China, where import volumes surged by over 28 per cent.

1.1.17 Given, limited growth in the minor bulks trade, volumes remained static at an estimated 1.7 billion tons. The drag on volumes reflects the decline in steel products trade, as well as the reduction in bauxite and nickel ore shipments resulting from a bauxite-mining ban in Malaysia and nickel ore mine closures in the Philippines. However, trade in some other minor bulk commodities such as cement, petroleum coke and sugar were positive and helped offset slightly the decline in nickel ore and bauxite shipments.

Other Dry Cargo Trades

Containerized Trade

1.1.18 Global containerized trade expanded at a faster rate of 3.1 per cent in 2016, with volumes attaining an estimated 140 million 20-foot equivalent units (TEUs) (MDS Transmodal, 2017). Recovery was driven by volume growth in the peak leg of the Asia–Europe trade, where volumes contracted in 2015. Other contributing factors were accelerated growth in intra-Asian cargo flows and positive trends in the trans-Pacific. Together, these developments contributed to

raising overall containerized trade volumes. In contrast, limited growth on North–South trade routes caused by reduced import demand of key fuel and non-fuel commodity exporters hindered overall growth.

1.1.19 Intraregional trade continued to grow steadily (5.1 per cent) in 2016. To a large extent, intraregional trade has been gaining market share due to the rapid expansion in intra-Asian containerized trade, driven by the movement of intermediate goods and the value chains involving China and its neighbouring Asian countries. South–South trade contracted; by 3.1% and 2.9% in 2015 and 2016 respectively. In this respect, the impact of lower commodity prices on developing economies' purchasing power may play a part in this development. However, given the small volumes associated with South–South containerized trade, the impact on overall trade appears to be marginal. Falling commodity prices continued to undermine North–South trade and hinder flows on secondary East–West trade routes. There were fewer imports into Western Asia, owing to the negative impact of lower oil prices on the purchasing power of the region. Offsetting this trend, however, was the strong import demand in Southern Asia.

Seaborne Trade Development Forecast

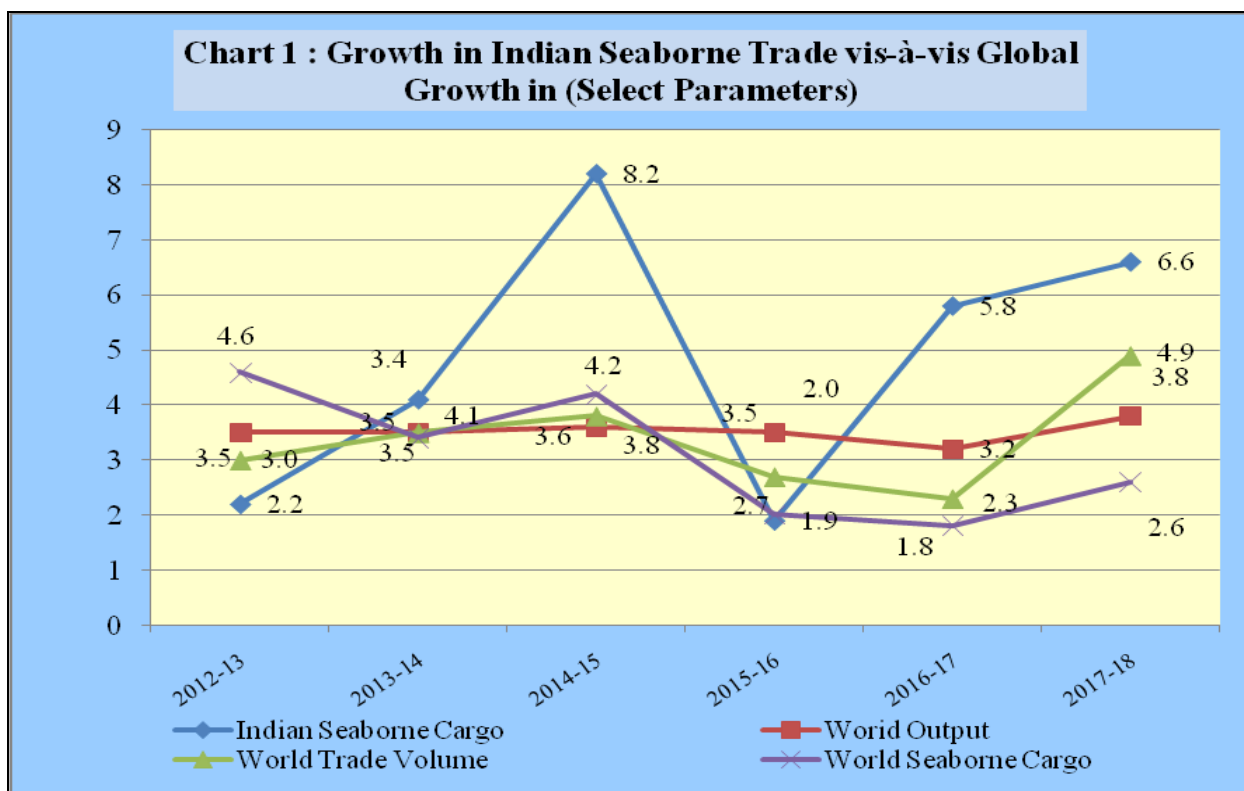
1.1.20 UNCTAD forecast that, there is an increase in world seaborne trade volumes between 2017 and 2022. Projected growth estimates are based on the income elasticity of seaborne trade, including by cargo segment derived by using regression analysis over 2000–2016. Combining the estimated elasticities with the latest International Monetary Fund GDP growth projections for 2017–2022, world seaborne trade volumes are expected to expand across all segments, with containerized trade and major dry bulk commodities trade recording the fastest growth.

1.1.21 In 2017, UNCTAD forecasts indicate that world seaborne trade volumes will reach 10.6 billion tons, reflecting an increase of 2.8 per cent, up from 2.6 per cent in 2016. Improved prospects reflect a firming up in demand in the dry bulk trade sector, with the major bulk commodities projected to expand by 5.4 per cent in 2017. Containerized trade is projected to grow by 4.5 per cent, owing mainly to growing intra-Asian trade volumes and improved flows on the East–West mainlanes. Growth in tanker trade is expected to diminish, reflecting the impact of oil output cuts by major producers since the start of 2017, as well as some recovery in oil price levels.

Crude oil trade is projected to grow by less than 1 per cent while, together, refined petroleum products and gas are projected to grow by 2 per cent.

1.2 India: Seaborne Cargo Traffic

1.2.1 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**.



1.3 Cargo Traffic at Indian Ports

1.3.1 During 2017-18, Major and Non-major Ports in India have accomplished a total cargo throughput of 1208.94 million tonnes reflecting an increase of 6.6% over the corresponding period of the previous year 2016-17 (Table 3). The growth in cargo handled at Major and Non-major ports in 2017-18, were 4.8% and 9.1% respectively. The share of Major Port in the total

traffic handled at Indian Port decreased from 57.20% in 2016-17 to 56.20% in 2017-18. 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	2017-18 (P)
Major Ports	560.19 -(1.7)	545.84 -(2.6)	555.49 (1.8)	581.34 (4.7)	605.91 (4.2)	648.47 (7.0)	679.37 (4.8)
Non-Major Ports	353.74 (12.2)	387.93 (9.7)	416.96 (7.5)	470.89 (12.9)	465.99 -(1.0)	485.23 (4.1)	529.58 (9.1)
All Ports	913.93 (3.2)	933.77 (2.2)	972.45 (4.1)	1052.23 (8.2)	1071.89 (1.9)	1133.70 (5.8)	1208.94 (6.6)

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 2017-18 was 679.37 million tonnes achieving growth of 4.8% over the previous year.

1.4.2 During 2017-18, Haldia Dock Complex (HDC) recorded highest growth in traffic 18.6% followed by Cochin Port (16.5%), Paradip Port (14.7%), JNPT (6.2%), New Mangalore Port (5.3%), Deendayal Port (4.4%), Vishakhapatnam Port (4.1%), Kolkata Dock System (KDS) (3.5%), Chennai Port (3.3%) and Kamarajar Port (1.4%). Major ports which recorded **negative growth** in traffic during 2017-18 were: Mormugao Port (18.9%), V.O. Chidambaranar Port (4.9%) and Mumbai Port (0.5%).

1.4.3 Amongst the Major Ports, Deendayal Port erstwhile Kandla Port handled the maximum Cargo of 110.1 million tonnes with a share of 16.2% in total cargo handled at major ports followed by Paradip Port (15.0%), JNPT (9.7%), Vishakhapatnam Port (9.4%), Mumbai Port (9.2%), Chennai Port (7.6%), NMPT (6.2%), Haldia Dock Complex (6.0%), Chidambaranar Port

(5.4%), Kamarajar Port (4.5%), Cochin Port (4.3%), Mormugao Port (4.0%) and Kolkata Dock System (KDS) (2.6%) during 2017-18 (**Table 4**).

Table 4: Traffic Handled at Major Ports						
(Thousand Tonnes)						
Ports	2013-14	2014-15	2015-16	2016-17	2017-18(P)	% change 17-18/ 16-17
1	2	3	4	5	6	7
Kolkata	41386	46293	50289	50951	57886	13.6
Kolkata DS	12875	15283	16782	16810	17390	3.5
Haldia DC	28511	31010	33507	34141	40496	18.6
Paradip	68003	71011	76397	88958	102013	14.7
Vizag	58504	58004	57035	61020	63537	4.1
Kamarajar	27337	30251	32206	30020	30446	1.4
Chennai	51105	52541	50058	50214	51881	3.3
Chidambaranar	28642	32414	36849	38463	36583	-4.9
Cochin	20886	21595	22095	25007	29138	16.5
New Mangalore	39365	36566	35582	39936	42055	5.3
Mormugao	11739	14711	20776	33181	26897	-18.9
Mumbai	59184	61660	61119	63129	62828	-0.5
JNPT	62333	63801	64027	62152	66004	6.2
Kandla	87005	92497	99458	105442	110099	4.4
All Ports	555489	581344	605891	648473	679367	4.8
Source: IPA, (P): Provisional						

Commodity-wise growth of cargo traffic at Major Ports

1.4.4 At a broad commodity level, POL posted record growth of 13.2% followed by Container (7.2%) in 2017-18. The other commodities such as Fertilizer Raw (Dry), Fertilizer Finished and others commodity posted growth of 7.0%, 4.8% and 4.8% respectively. Cargo traffic in Food Grain, Coking Coal, Thermal Coal and Iron Ore was affected in 2017-18 dropped by 53.6%, 7.6%, 5.4%, and 1.7% respectively.

Table 5: Commodity wise Traffic Handled at Major Ports						
(Thousand Tonnes)						
Commodities	2013-14	2014-15	2015-16	2016-17	2017-18(P)	% change 2017-18/2016-17
1	2	3	4	5	6	7
POL	181055	181020	186360	200225	226660	13.2
Iron Ore	24616	18002	15315	41765	41052	-1.7
Fertilizer	13784	16291	16023	14057	14888	5.9
1. Finished	6149	7926	8493	7043	7380	4.8
2. Raw (DRY)	7635	8365	7530	7014	7508	7.0
Coal	104271	119474	134056	126177	118530	-6.1
1. Thermal Coal	71651	87119	100252	90329	85411	-5.4
2. Coking Coal	32620	32355	33804	35848	33119	-7.6
Food Grain	4796	3089	2373	6504	3019	-53.6
Container (Tonnes)	114672	119441	123168	124663	133635	7.2
Others	112295	124027	128596	135082	141583	4.8
Total	555489	581344	605891	648473	679367	4.8
Source: IPA, (P): Provisional						

1.4.5 In terms of composition of cargo traffic handled during 2017-18 at major ports, the largest commodity group (with share in percent in total cargo handled) was POL (33.4%), Others cargo (20.8%), Container traffic (19.7%), Coal (17.4%), Iron ore (6.0%) and Fertilizer & FRM (2.2%) in **Table 5**.

1.4.6 The Port-wise and Commodity-wise shares in total cargo traffic during 2017-18 are depicted in the **Charts II and III** respectively.

Chart-II Major Ports-Portwise share in Traffic Handled during 2017-18 in India

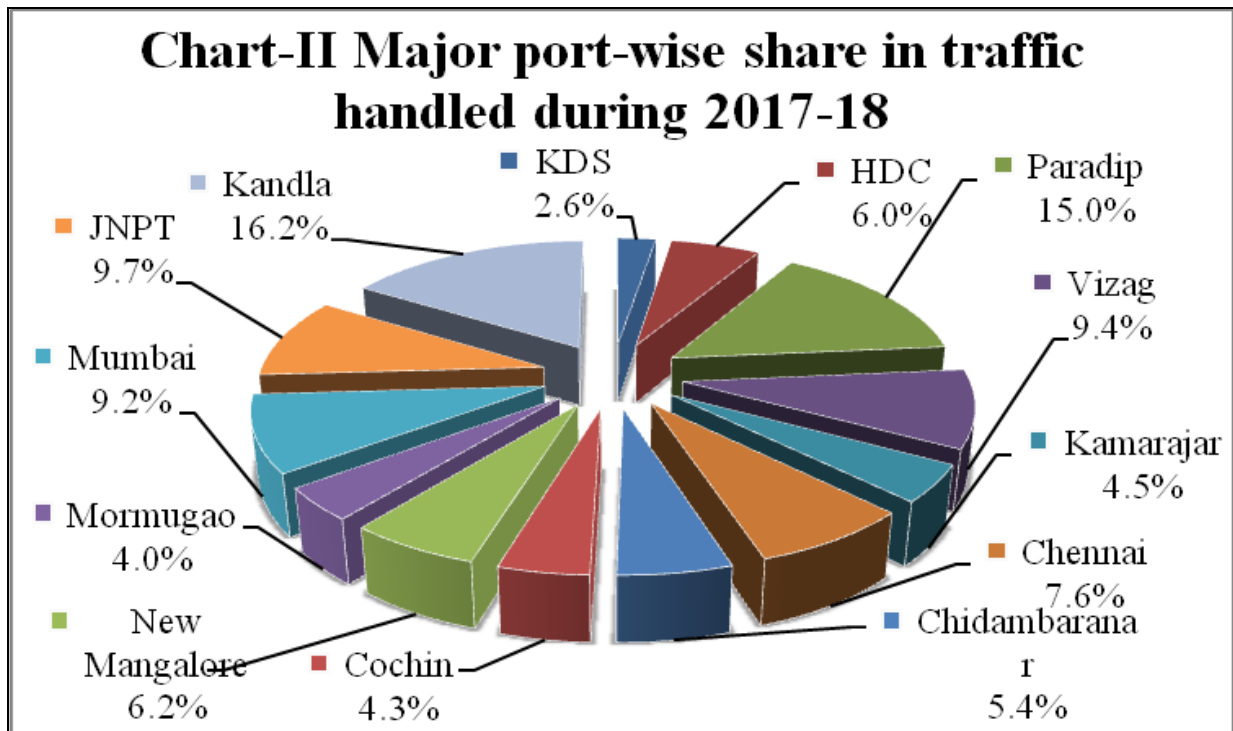
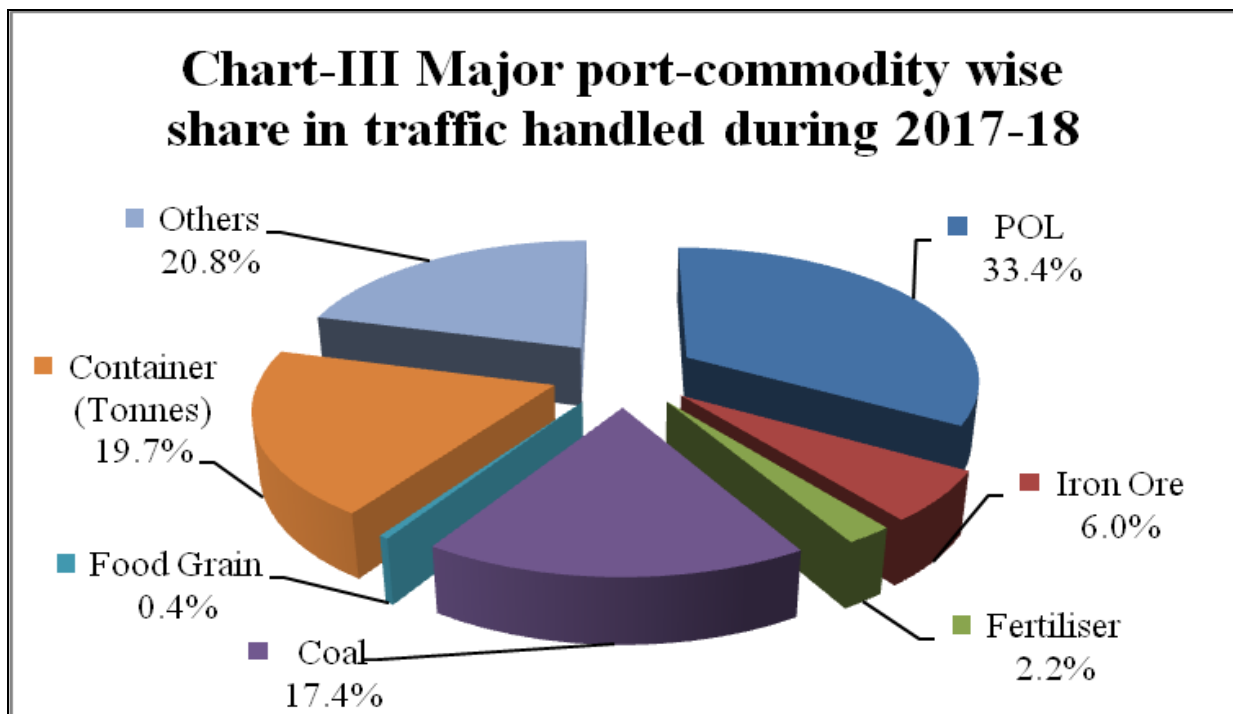


Chart-III Major Ports-Commodity composition of Traffic Handled during 2017-18 in India



1.4.7 The Port-wise & commodity-wise traffic handled at major ports from 2014-15 onwards are given in **Annex -I**.

Container Traffic

1.4.8 Growth in container traffic (in million tonnes) which reflects largely trade in manufactures and components, at 7.2% during 2017-18 which is much higher as compared to 1.2% achieved in the year 2016-17. In terms of Twenty Foot Equivalent Units (TEUs), containers handled by Major Ports during 2017-18 recorded growth of 8.3% as compared to 3.6% during 2016-17.

Amongst the major ports, Kolkata Dockyard System (1.3%) and Mumbai Port (13.0%) witnessed fall in container traffic in 2017-18 compared to 2016-17. JNPT is continues to be the leading container handling port in the country with a share of 43.3% in terms of tonnage and 52.9% in terms of TEUs in the total container traffic at major ports during 2017-18 (**Table 6**). Chennai port which handled 22.4% of container cargo is the second largest container handling port followed by Chidambaranar Port (10.6%).

Table 6: Container Traffic at Major Ports										
(in thousand tonnes/TEUs)										
PORT	2014-15		2015-16		2016-17		2017-18(P)		% change 2017-18/ 2016-17	
	Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU
1	2	3	4	5	6	7	8	9	10	11
Kolkatta DS	8110	528	9263	578	9887	636	9760	640	-1.3	0.6
Haldia DC	1958	102	1376	85	2467	136	2672	156	8.3	14.7
Paradip	67	4	132	5	42	2	98	7	133.3	250.0
Vizag	4372	248	5145	245	6428	367	6835	389	6.3	6.0
Chennai	29945	1552	30207	1565	28850	1495	29905	1549	3.7	3.6
Ennore	0	0	1	0	1	0	52	3	5100.0	-
Tuticorin	11034	560	12388	612	12991	642	14192	698	9.2	8.7
Cochin	5246	366	5785	419	6840	491	7692	556	12.5	13.2
New Mangalore	920	63	1105	76	1411	95	1743	115	23.5	21.1
Mormugao	312	22	345	26	402	30	425	32	5.7	6.7
JNPT	56933	4467	56791	4491	54530	4500	57867	4834	6.1	7.4
Mumbai	544	45	574	43	639	43	556	42	-13.0	-2.3
Kandla	0	0	56	3	175	5	1838	118	950.3	2260.0
All Ports	119441	7957	123168	8148	124663	8442	133635	9139	7.2	8.3

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 43.8% of total maritime freight traffic of the country during 2017-18.

1.5.2 **Table 7** presents maritime state-wise share and growth of traffic handled at Non-major Ports from 2013-14 onwards.

Maritime State/UT	2013-14	2014-15	2015-16	2016-17	2017-18(P)	% Change over previous year	
						2016-17	2017-18 (P)
Gujarat	309945 (74.3)	336095 (71.4)	339778 (72.9)	345739 (71.3)	370769 (70.0)	1.8	7.2
Maharashtra	24664 (5.9)	27295 (5.8)	28849 (6.2)	34894 (7.2)	37906 (7.2)	21.0	8.6
Andhra Pradesh	58692 (14.1)	83418 (17.7)	72733 (15.6)	69603 (14.3)	86288 (16.3)	-4.3	24.0
Goa	284 (0.1)	760 (0.2)	430 (0.1)	117 (0.0)	72 (0.0)	-72.8	-38.5
Tamil Nadu	866 (0.2)	825 (0.2)	856 (0.2)	1170 (0.2)	1103 (0.2)	36.7	-5.7
Karnataka	509 (0.1)	651 (0.1)	835 (0.2)	707 (0.1)	680 (0.1)	-15.3	-3.8
Other States/UTs	22010 (5.3)	21844 (4.6)	22508 (4.8)	33001 (6.8)	32755 (6.2)	46.6	-0.7
All M. States/UTs	416970 (100.0)	470888 (100.0)	465989 (100.0)	485231 (100.0)	529573 (100.0)	4.1	9.1

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 2017-18 was 9.1% compared to 4.1% 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.

1.5.4 The above table reflects that Gujarat accounted for (70.0%) of the traffic handled by the non-major ports followed by Andhra Pradesh (16.3%) and Maharashtra (7.2%). Three maritime States, viz, Gujarat, Andhra Pradesh and Maharashtra together accounted for 93.5% of the total cargo traffic handled by the non-major ports in 2017-18.

1.5.5 Two commodities, viz. POL and Coal accounted for 64.3% of the total cargo handled at the non-major ports during 2017-18 (**Table 8**). The percentage share of Iron ore, building materials, fertilizer & FRM and other commodities are 7.0%, 2.8%, 2.5% and 23.4% respectively in the year 2017-18.

Commodity	2013-14	2014-15	2015-16	2016-17	2017-18(P)	% Change over previous year	
						2016-17	2017-18(P)
POL	169777 (40.7)	167276 (35.5)	180671 (38.8)	186393 (38.4)	195214 (36.9)	3.2	4.7
Iron Ore	18338 (4.4)	26795 (5.7)	17383 (3.7)	34455 (7.1)	37037 (7.0)	98.2	7.5
Building Material	14178 (3.4)	14224 (3.0)	14205 (3.0)	15915 (3.3)	14818 (2.8)	12.0	-6.9
Coal	126321 (30.3)	156737 (33.3)	141874 (30.4)	133754 (27.6)	145388 (27.5)	-5.7	8.7
Fertilizer & FRM	12010 (2.9)	13952 (3.0)	16946 (3.6)	14241 (2.9)	13256 (2.5)	-16.0	-6.9
Others	76346 (18.3)	91904 (19.5)	94910 (20.4)	100473 (20.7)	123860 (23.4)	5.9	23.3
All	416970 (100.0)	470888 (100.0)	465989 (100.0)	485231 (100.0)	529573 (100.0)	4.1	9.1

Note: Figure in parenthesis is the percentage share of major commodity groups in the total traffic handled by the Non major ports

1.5.6 The share of Maritime States/UTs in the total traffic and Commodity-wise composition of traffic during 2017-18 is depicted in the pie **Charts IV and V** respectively.

Chart IV : Non-Major Ports-share of Maritime States/UTs in Traffic Handled during 2017-18

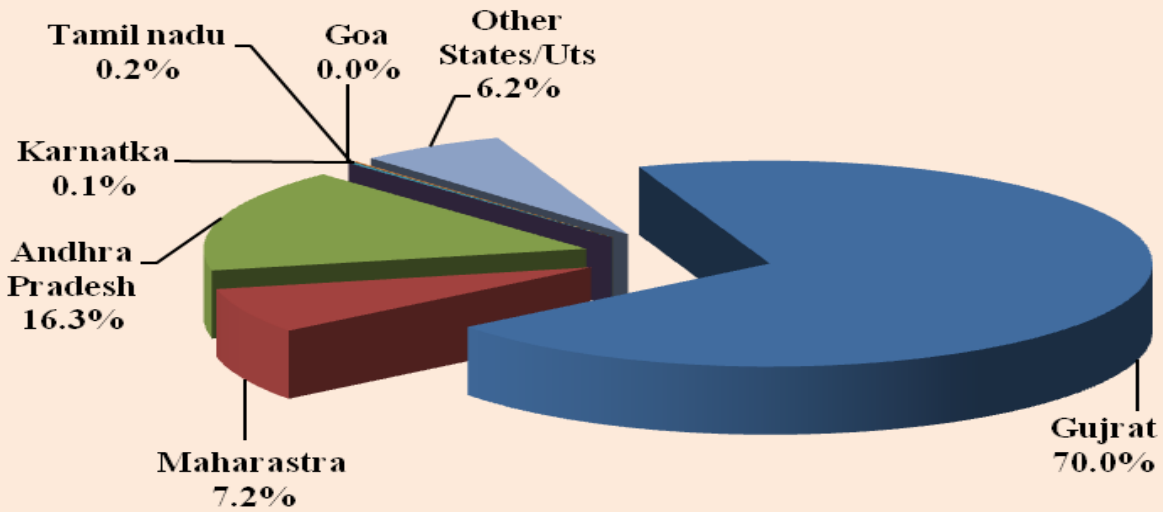
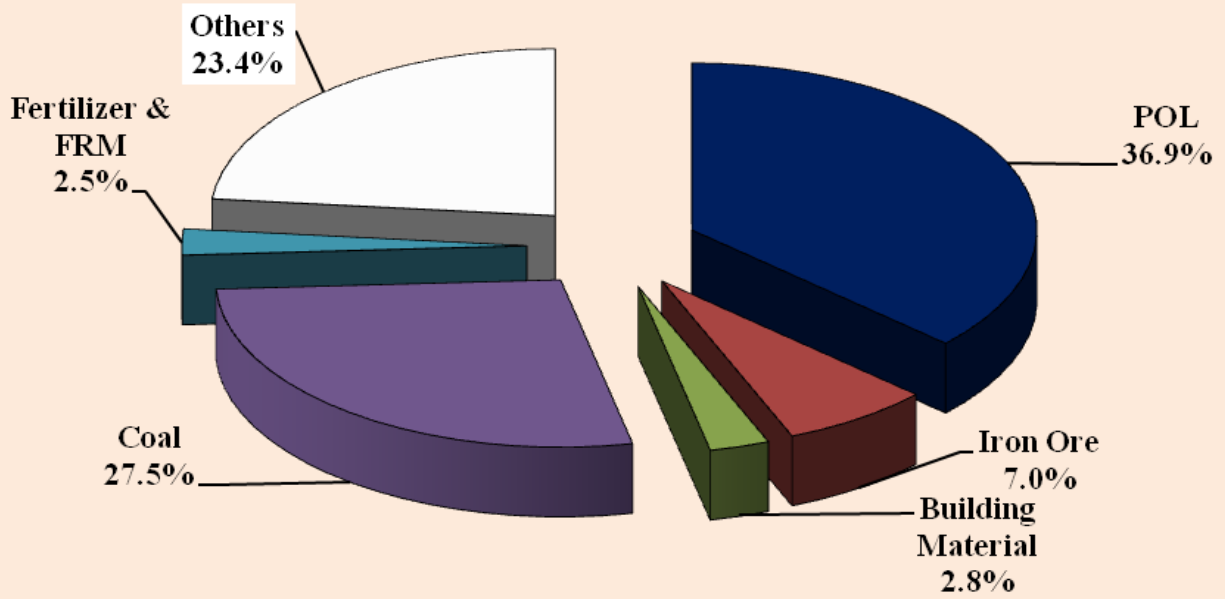


Chart V: Non-Major Ports-Commodity Composition of Traffic Handled during 2017-18



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

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, the Indian economy achieved growth of 7.1%. However, in 2017-18, the growth declined to 6.5%. The growth of Indian economy has declined mainly due to decline in agriculture sector growth which decreased from 6.3% in 2016-17 to 3.4% in the year 2017-18.

1.6.1.2 Cargo traffic handled by India's 12 major ports (which accounts for 56.2% of India's total seaborne cargo) during 2017-18 was 679.37 million tonnes compared to 648.47 million tonnes in 2016-17 showing a growth of 4.8%. 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. The Industry sector which is a major factor influencing seaborne container cargo traffic posted a GVA growth of 5.5% in 2017-18 as compared to 6.8% in corresponding period of 2016-17. GVA of Industry sector recorded high growth of 6.1%, 7.1% and 8.8% in last three quarters of 2017-18 while, growth in first quarter of 2017-18 was merely 0.1%. The overall growth of the entire sector was 6.5% in 2017-18 compared to 7.1% in the year 2016-17.

1.6.1.3 Trends in POL, coal and fertilizers & FRM 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 Iron Ore traffic, in the year 2016-17 posted growth of 163.7%, while in the year 2017-18, it posted a declining of 2.7% respectively due to ban of iron ore mining in Goa State. The growth of Iron ore traffic in the first two quarters of 2017-18 was 33.4% and 11.6% respectively, while became negative growth in the subsequent two quarters of 2017-18. The growth of POL products in the 2017-18 increased has reached to 6.9% compared to 1.3% in the 2016-17. The growth of container commodity (in tonnes) increased in the year 2017-18 to 7.3%

compared to 1.2% posted in the previous year. In terms of TEUs the growth of container traffic has also increased from 3.1% in 2016-17 to 8.1% in the 2017-18.

The coal traffic at Major Ports commodity had also increased to 4.7% in 2017-18 while, in 2016-17, coal reached negative growth of 10.2%. The quarterly growth of Cargo handled by major ports in 2017-18 was 5.0%, 1.5%, 4.4% and 8.5% respectively.

1.6.1.4 **Table 9** gives Quarter wise and annual trend in growth of commodity-wise cargo traffic handled at Major ports, GVA overall and GVA of Industry sector during 2016-17, and 2017-18.

Table -9 - Quarter-wise trend in growth of Cargo Traffic at Major Ports and GVA										
Commodities/ Year	2016-17					2017-18				
	Q1	Q2	Q3	Q4	Annual Growth	Q1	Q2	Q3	Q4	Annual Growth
POL	2.4	8.4	14.5	-17.8	1.3	8.9	5.5	6.3	7.8	6.9
Iron Ore	159.3	66.9	258.7	174.8	163.7	33.4	11.6	-23.8	-11.1	-2.7
Coal	0.7	-8.3	-11.3	-21.6	-10.2	-9.8	-9.9	13.9	28.4	4.7
Fertilizer & FRM	-9.3	-14.5	-10.7	-14.0	-12.2	6.8	-10.4	0.8	49.1	7.0
Container										
In tonnes	3.1	-1.4	2.2	1.0	1.2	5.6	7.6	9.4	6.8	7.3
In TEUs	6.4	0.4	5.0	0.9	3.1	6.5	7.3	7.7	10.9	8.1
Other cargo	9.1	16.6	21.3	100.7	35.7	8.8	-2.0	-2.2	-1.5	0.1
All Cargo	6.4	4.3	12.6	4.5	6.9	5.0	1.5	4.4	8.5	4.8
GVA overall	8.3	7.2	6.9	6.0	7.1	5.6	6.1	6.6	7.6	6.5
GVA -Industry	8.3	6.8	7.1	5.0	6.8	0.1	6.1	7.1	8.8	5.5

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

1.6.2 Recent Developments in Global Ocean Freight Rates

It covers the development of freight rates and transport costs in 2016 and early 2017, describing relevant developments in maritime markets, namely supply and demand in container ships, dry bulk carriers and tankers. It highlights significant events leading to major freight rate fluctuations, discusses recent industry trends and gives a selective outlook on future developments of freight markets. It explores the recent trend towards consolidation that developed in the container ship market, both in the form of new mergers and acquisitions, as well as through the emergence of mega liner shipping alliances and their implication on the market.

1. Container freight rates

2016 was a challenging year for the container ship sector, although market fundamentals balance improved for the first time since 2011, with growth in demand outpacing that of supply. The overall market demand growth rate for containers shipping grew by 3 per cent in 2016, slightly better than the 2 per cent annual growth in 2015. In contrast, container supply capacity went up by 1 percent, compared with 8 percent in 2015. This improvement was mainly prompted by a substantial slowdown in fleet growth and a more positive trend in demand, namely in the second half of the year. The supply–demand balance was supported by a deep contraction in supply capacity, which was principally driven by a drop-in deliveries totaling less than 904,000 TEUs – almost half, compared with the 1.7 million deliveries in 2015, and a high level of container ship demolition activities – especially of Panamax ships – that more than tripled in 2016, compared with 2015, reaching a high record of about 0.7 million TEUs. Idle capacity was also high, at 7 per cent at the end of 2016 (Clarksons Research, 2017a).

On the other hand, increase in demand was mainly steered by improvements in main-lane trade routes, mainly the Far East–Europe trade route (about 1 per cent), which had experienced low levels in 2015, and a good expansion on intra-Asian trade routes (about 5 per cent), which was boosted by positive trends in the Chinese economy. However, the improvement in the supply and demand fundamentals was not sufficient to generate better market conditions and improve freight rates. Overall, growth in demand was limited by a continuous slowdown in world economic growth

and a weak commodity price environment, and the level of surplus capacity remained high from excess built up over recent years.

The freight rates market remained under pressure, and carriers struggled to recover operating costs on certain trade routes. Container spot freight rates were generally low and unstable throughout 2016, witnessing record declines in the first part of the year and more positive trends in the second half. The momentum gained in the second half of 2016 was mainly driven by measures taken by shipping lines to manage supply side through network optimization, scrapping and more careful vessels deployment around the peak season (Baltic and International Maritime Council, 2017a).

The first quarter of 2017 saw some improvement in the container ship market. Both the freight and charter markets showed positive trends, partly supported by improved demand trends and limited fleet growth. The container ship charter market also started to some improvement in March 2017, having remained at historically low levels throughout 2016 and early 2017 (Clarksons Research, 2017c).

2. Tanker freight rates

In 2016, freight rates in all tanker segments went down from the high level of 2015 but were not far from the five-year average across most segments. Market conditions were altered with the arrival of new vessels and a slowdown in oil demand growth. As shown in table 10, the average dirty tanker index declined to 726 in 2016, compared with 821 in 2015. This represents a decrease of 12 per cent. The average Baltic Exchange clean tanker index reached a low of 487 points in 2016, compared with 638 in 2015, 24 percent less than the annual average in 2015. Market fundamentals worsened in the crude tanker segment in 2016, as the fleet expanded rapidly, surpassing demand. This led to steep declines in freight rates.

Contributing factors included a sharp rise in oil imports into China, India and the United States, as well as the lifting of oil sanctions on the Islamic Republic of Iran, which increased export shipments from the Middle East. At the same time, global tanker deliveries also increased. Carriers

of liquefied natural gas and other types of gas continued their high growth (+9.7 percent); oil tankers grew at 5.8 per cent and chemical tankers, at 4.7 per cent, following several years of low growth. Freight rates for product tankers also fell in 2016 as market fundamentals deteriorated. The market observed about 4.6 per cent growth in the demand for seaborne products trade, together with fast growth of about 6.1 per cent in the product tanker fleet (Clarksons Research, 2017b).

Table 10 - Baltic Exchange tanker indices, 2007-2017											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	%age change 2016/2015)	2017 (First Half)
Dirty Tanker Index	1510	581	896	782	719	642	777	821	726	-12	838
Clean Tanker Index	1155	485	732	720	641	605	601	638	487	-24.0	631
Source: Review of Maritime Transport -2017											
Note: The Baltic Exchange dirty tanker index is an index of charter rates for crude oil tankers on selected routes published by the Baltic Exchange. The Baltic Exchange 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 – heavy fuel oils or crude oil – than clean tankers. The latter generally carry refined petroleum products such as gasoline, kerosene or jet fuels, or chemicals.											

These imbalances in markets fundamentals had a repercussion on earnings which came under further pressure, particularly in the last six months of the year. Overall, tanker earnings averaged about \$17,917 per day in 2016, a 42 per cent decline, compared with 2015. This decline was affected by the rise in crude oil prices, which also had an impact on bunker costs. (Clarksons Research, 2017b).

In 2016, the oil tanker segment experienced a difficult year, spilling over to 2017 as freight rates for all crude oil and product tankers continued their decline, following a brief improvement at the end of 2106. The outlook appears challenging in the short term, given expectations for continued strong supply growth and numerous risks to the demand side.

3. Dry bulk freight rates

2016 was another difficult year for the dry bulk sector, which continued to face overcapacity and weak growth in demand. The year started with historically low freight rates as demand remained weak and the inflow of new vessels continued. The Baltic Exchange dry index experienced record lows in 2016. It reached its lowest average – 307 in February. Dry bulk demand, especially for iron ore, improved towards year's end, when Chinese imports expanded in response to a new round of fiscal and financial stimuli launched by the Government to boost economic growth (Clarksons Research, 2017d). This mainly benefited the Capesize bulk carriers as they transported the key commodity of iron ore into China.

The industry continued taking steps to limit fleet supply growth through increased scrapping and postponing or reducing deliveries of new vessels during 2016. As previously noted, the fleet capacity of bulk carriers grew by 2.22 per cent, one of its lowest rates of growth since 1999 (Clarksons Research, 2017d). As such, the management of supply growth and the boost in demand supported freight rates as they increased in the second half of the year, with the Baltic Exchange dry index reaching 1,050 in December 2016. Nevertheless, freight rates remained relatively low compared with historical data. As a result of market imbalance in the dry bulk market, average earnings fell in all fleet segments, with figures dropping below \$4,000 per day (Clarksons Research, 2017d).

Market conditions in smaller bulk carrier sectors were poor in 2016, with high levels of supply growth impaired by relatively slow demand growth in minor bulk trade and coal. As in other segments, the first half of the year was challenging; as a result, rates decreased and owners were compelled to lay up ships, delay new-building deliveries and cancel orders. Adjustments in supply, combined with renewed demand for raw materials (coal, iron ore and grain), led to market recovery and better freight rates in the second half of the year. Sustained growth in demand and low contracting supply capacity will be necessary to produce a shift in fundamentals and raise freight rates.

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 2.8% in 2016 as compared to negative growth of 0.3% in 2015. The growth in container traffic (million TEUs) was 1.9 % in 2016 as compared to 0.01% in 2015.

1.6.3.2 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						
(in Million Tonnes)						
S. No.	Port	Country	2013	2014	2015	2016
1	Shanghai	China	697	678.4	646.5	647.4
2	Singapore	Singapore	560.9	581.3	575.8	593.3
3	Guangzhou	China	470.9	501	475.5	544.4
4	Port Hedland	Australia	372.3	446.9	452.9	484.5
5	Ningbo	China	399.3	429.9	448.8	469
6	Rotterdam	Netherlands	440.5	444.7	466.4	461.2
7	Qindao	China	405.9	419.9	430.2	444
8	Tianjin	China	477.3	445.8	440.4	428.1
9	Busan	Korea	313.3	335.4	347.7	349.7
10	Dalian	China	320.8	337.4	320.7	318.4
11	Kwangyang	Korea	239.5	253.4	272	283.1
12	Port of South Louisiana	US	241.6	264	265.6	267.5
13	Hong Kong	China	276.1	297.7	256.5	256.7
14	Port Kelang	Malaysia	198.9	217.3	219.8	235.5
15	Xiamen	China	171.9	184.6	200.5	234.2
16	Houston	US	236.5	229.2	230.5	224.5
17	Antwerp	Belgium	190.8	199	208.4	214.2
18	Nagoya	Japan	208.2	207.6	197.9	193.3
19	Shenzen	China	201.5	192.1	191.1	189.5
20	Los Angeles	US	165.1	176.5	176.7	176.7
Total of Top 20 Ports			6588.3	6842.1	6823.9	7015.2
Source: Shipping Statistics Year Book 2017						

Table 12 - Top 20 World Container Ports**(in Million TEUs)**

S. No.	Port	Country	2013	2014	2015	2016
1	Shanghai	China	33.6	35.3	36.5	37.1
2	Singapore	Singapore	32.6	33.9	30.9	30.9
3	Shenzhen	China	23.3	24.0	24.1	23.9
4	Ningbo & Zhoushan	China	17.3	19.5	20.6	21.6
5	Hong Kong	China	22.4	22.2	20.1	19.8
6	Busan	Republic of Korea	17.7	18.7	19.5	19.2
7	Guangzhou	China	15.5	16.4	17.1	18.3
8	Qingdao	China	15.5	16.6	17.3	18.0
9	Dubai Ports	United Arab Emirates	13.6	15.2	15.6	15.7
10	Tianjin	China	13.0	14.1	13.9	14.3
11	Port Kelang	Malaysia	10.4	10.9	11.9	13.2
12	Rotterdam	Netherlands	11.6	12.3	12.2	12.4
13	Kaohsiung	Taiwan	9.9	10.6	10.3	10.5
14	Antwerp	Belgium	8.6	9.0	9.7	10.0
15	Dalian	China	9.9	10.8	9.5	9.7
16	Xiamen	China	8.1	8.6	9.2	9.6
17	Hamburg	Germany	9.3	9.8	8.8	8.9
18	Los Angeles	United State of America	7.9	8.3	8.2	8.4
19	Tanjung Pelepas	Malaysia	7.4	8.2	8.8	8.0
20	Laem Chabang	Thailand	6.0	6.6	6.8	7.4
Total of Top 20 Ports			293.6	311.0	311.0	316.9

Source: Shipping Statistics Year Book, 2017

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 2018; the cargo handling capacity of Major Ports was 1451.19 Million Tonnes. Capacity of Major Ports at the end of March 2009 to 2018 is given in **Annex III.**

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 2016-17, 57 projects (2 Public Private Partnership (PPP) and 55 Non-PPP) were awarded at an estimated investment of Rs. 9490.51 crore for additional capacity addition of 103.52 Million Tonnes in the major ports comprising construction of berths and terminals, mechanization of existing berths etc. However, during the year 2017-18, 34 projects were awarded at an estimated investment of Rs. 11610.84 crore for addition capacity of 92.19 Million Tonnes in the Major Port.

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 incentivize 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

1.7.10 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 harmonized with plans for the NHDP as well as with the upcoming and future DFCs.

(ii) Drafts

1.7.11 (a) A minimum draft availability of 14 meters 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 meters. 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 meters or above, Proposals are in hand to raise the draft at Mormugao port and Kamarajar (Ennore) port to 18 meters and at Jawaharlal Nehru port to 15 meters.

b) Strategic Institutional shift – Landlord model of port governance

1.7.12 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

1.7.13 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

1.7.14 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. 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.

Existing Coastal Berth Scheme has been revamped under Sagarmala project to provide financial support by way of grant to:

- (a) Construction/ up-gradation of exclusive coastal berths for coastal cargo
- (b) berths/Jetties for passenger ferries in Major/Non major Ports
- (c) Construction of platforms/ jetties for hovercrafts/ seaplanes by ports (Major/Non-major ports/State government) in port waters
- (d) Construction of berths/jetties in National Waterways and Inland of State governments concerned.
- (e) Mechanization of Coastal berths for major ports and non-major ports
- (f) Capital dredging grant for operative non-major ports and
- (g) Construction of break water for existing and green filed ports

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 of construction/ upgradation of coastal berths.

e) Sagarmala Project

1.7.15 The project has been launched with an objective of modernizing 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 modernization 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.

1.7.16 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 recycling, 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

1.7.17 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 Governments 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

1.7.18 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)

1.7.19 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.

1.7.20 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.

1.7.21 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.

1.7.22 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, 86 have already been implemented. The implementation of these initiatives will further improve the efficiency and performance of the Ports.

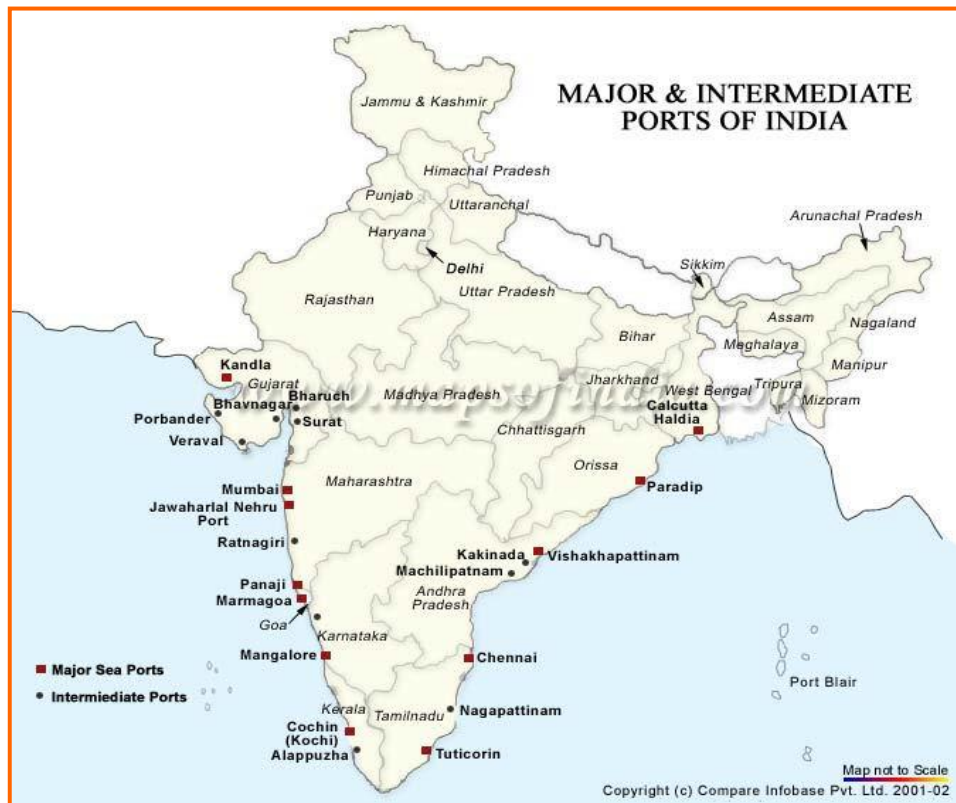
j) Coastal Transportation of Vehicles by Ro-Ro Vessels

1.7.23 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 2016-17, only 75 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

2.4.1 Non-major ports in India collectively handled 529.57 million tonnes of traffic during 2017-18 as compared to 485.23 million tonnes of cargo handled in 2016-17 recording growth of 9.1%.

2.4.2 GUJARAT

2.4.2.1 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. Deendayal Port erstwhile Kandla is a major port. Out of 46 non-major ports, 20 non-major ports in the State are handling cargo. The remaining 26 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

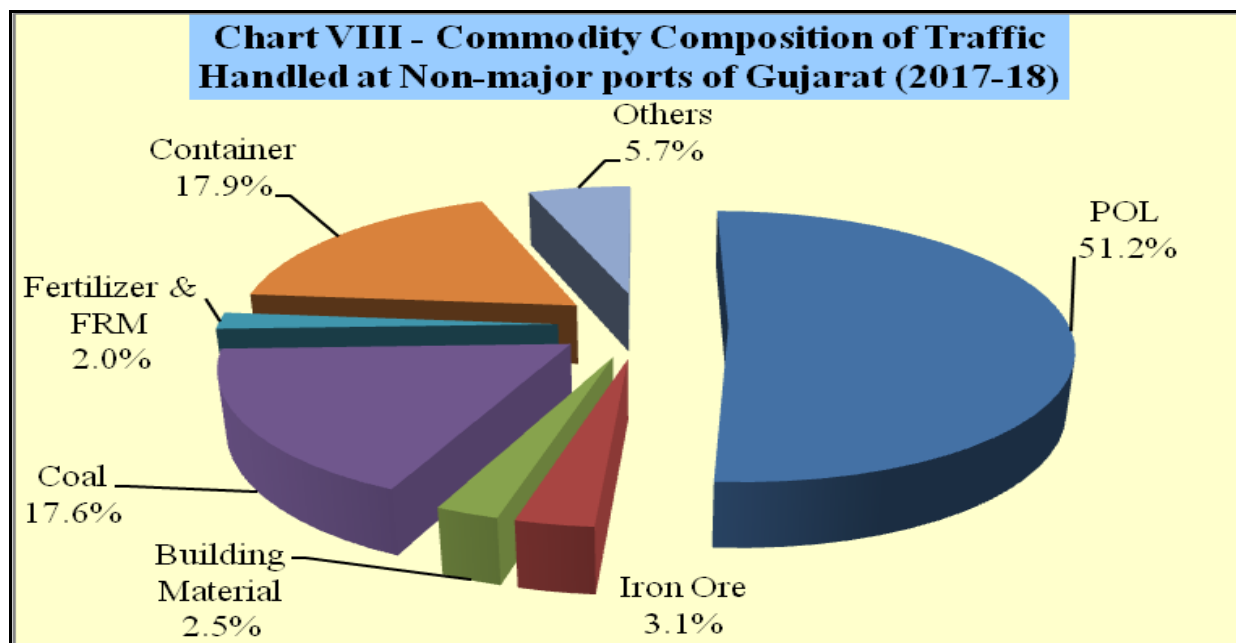
2.4.2.2 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in **Table 13**.

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	2017-18(P)
Major Ports	82.50 (00.8)	93.62 (13.5)	87.01 -(07.1)	92.50 (06.3)	99.46 (07.5)	105.44 (06.0)	110.10 (04.4)
Non-Major Ports	259.05 (12.2)	287.82 (11.1)	309.94 (07.7)	336.10 (08.4)	339.78 (01.1)	345.74 (01.8)	370.77 (07.2)
All Ports	341.55 (09.2)	381.44 (11.7)	396.95 (04.1)	428.59 (08.0)	439.24 (02.5)	451.18 (02.7)	480.87 (06.6)

Figures in bracket represent percentage change over the previous year/period.
(P) Provisional

2.4.2.3 It is noteworthy that all ports (major and non-major) located along the coast of Gujarat handled 39.8% of the total cargo handled by Indian ports in 2017-18. The total cargo traffic handled at the major and non-major ports of Gujarat during 2017-18 was of the order of 480.87 million tonnes as against 451.18 million tonnes in the same periods of 2016-17, reflecting an increase of 6.6%. In particular, non-major ports of Gujarat alone handled close to 70% of total cargo traffic at India’s non-major ports during 2017-18.

2.4.2.4 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 during 2017-18 is shown in **Chart VIII**.



2.4.2.5 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 2017-18, 22 million tonnes of capacity was added taking the total cargo handling capacity in the non- major port sector in the Gujarat to 523 million tonnes. Gujarat Maritime Board (GMB) is the nodal agency for regulation and development of the State’s maritime

activities. The table indicates that from the year 2012-13 onwards the capacity of Non-major Ports increases every year. However, the capacity utilization of non-major ports in Gujarat; decreased over time. In 2013-14, the capacity utilization was 80.1% and it goes down to 79.6% in 2014-15 and further decreased to 72.9% in 2015-16 and 70.9% in 2017-18.

Table 14 - Gujarat: Non Major Ports - Capacity & Utilization							
(Million Tonnes)							
Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)
Capacity*	323 (21.0)	366 (13.3)	387 (05.7)	422 (09.0)	466 (10.4)	501 (07.5)	523 (04.4)
Cargo Handled	259.05	287.82	309.94	336.10	339.78	345.74	370.77
% Utilization	80.2	78.6	80.1	79.6	72.9	69.0	70.9
* Including Lighterage Port Capacity; Figures within parenthesis indicate capacity addition in % age during the year							

2.4.2.6 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.

2.4.3 MAHARASHTRA

2.4.3.1 The State has a coastline of around 653 km, with 2 major ports viz. Mumbai and Jawahar Lal Nehru Port Trust (JNPT) 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. Total cargo handled during 2017-18 was 166.74 million tonnes compared to 160.18 million tonnes during 2016-17 with growth of 4.1%.

2.4.3.2 The share of the cargo handled in two major ports of Maharashtra State in the total cargo was 77.3% while share of non-major ports was only 22.7%.

2.4.3.3 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	2017-18(P)
Major Ports	121.92 (02.5)	122.53 (00.5)	121.52 -(00.8)	125.46 (03.2)	125.15 -(00.3)	125.28 (00.1)	128.83 (02.8)
Non-Major Ports	19.95 (34.1)	24.20 (21.3)	24.66 (01.9)	27.30 (10.7)	28.85 (05.7)	34.89 (21.0)	37.91 (08.6)
All Ports	141.87 (06.0)	146.73 (03.4)	146.18 -(00.4)	152.76 (04.5)	153.99 (00.8)	160.18 (04.0)	166.74 (04.1)
Figures in bracket represent percentage change over the previous year/period. P- Provisional							

2.4.4 GOA

2.4.4.1 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. In Goa State, the cargo handled at non-major Ports was very less compared to major Port. The percentage share of major port in the total cargo handled in the Goa state was 99.7% in 2017-18.

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 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	2017-18(P)
Major Ports	39.05 -(22.0)	17.74 -(54.6)	11.74 -(33.8)	14.71 (25.3)	20.78 (41.2)	33.18 (59.7)	26.90 -(18.9)
Non-Major Ports	14.47 -(00.8)	3.39 -(76.6)	0.28 -(91.6)	0.76 (167.6)	0.43 -(43.4)	0.117 -(72.8)	0.072 -(38.5)
All Ports	53.52 -(17.2)	21.13 -(60.5)	12.02 -(43.1)	15.47 (28.7)	21.21 (37.1)	33.30 (57.0)	26.97 -(19.0)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.							

2.4.5 KARNATAKA

2.4.5.1 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, 5 ports handle cargo in the state which is: Mangalore, Malpe, Hangarkatta, Belekeri and Karwar. During 2017-18, non-major ports in the State handled 0.68 million tonnes of cargo traffic as compared to 0.71 million tonnes in 2016-17 reflecting declined of 3.9%. The overall cargo handled in the Karnataka state was 42.74 million tonnes during 2017-18 compared to 40.64 million tonnes in the year 2016-17 with the growth of 5.1%.

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 17**.

Major/Non-Major	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)
Major Ports	32.94 (04.4)	37.04 (12.4)	39.36 (06.3)	36.57 (-07.1)	35.58 (-02.7)	39.94 (12.2)	42.06 (05.3)
Non-Major Ports	0.59 (-81.0)	0.61 (03.4)	0.51 (-16.6)	0.65 (27.9)	0.84 (28.3)	0.71 (-15.2)	0.68 (-03.9)
All Ports	33.53 (-03.2)	37.65 (12.3)	39.87 (05.9)	37.22 (-06.7)	36.42 (-02.1)	40.64 (11.6)	42.74 (05.1)

Figures in bracket represent percentage change over the previous year/period.
(P) Provisional.

2.4.6 KERALA

2.4.6.1 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, there are 4 non-major ports handling cargo are Kovalam /Vizhinjam, Kollam / Neendakara, Bepore and Azhikkal. The total cargo handled during 2017-18 in the Kerala State was 29.28 million tonnes compared to 25.15 million tonnes during

2016-17 with growth of 16.4%. The total cargo handled at Kerala State over the year has been increased from 2012-13 onwards.

2.4.6.2 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	2017-18(P)
Major Ports	20.09 (12.4)	19.84 -(01.2)	20.89 (05.3)	21.60 (03.4)	22.10 (02.3)	25.01 (13.2)	29.14 (16.5)
Non-Major Ports	0.1 -(16.7)	0.10 -(04.0)	0.09 -(06.3)	0.16 (76.7)	0.14 -(11.3)	0.14 (00.0)	0.14 -(02.1)
All Ports	20.19 (12.2)	19.94 -(01.3)	20.98 (05.2)	21.75 (03.7)	22.24 (02.2)	25.15 (13.1)	29.28 (16.4)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.							

2.4.7 TAMIL NADU

2.4.7.1 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.

2.4.7.2 During 2017-18, the non-major ports in Tamil Nadu collectively handled 1.10 million tonnes of cargo traffic as compared to 1.17 million tonnes 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 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	2017-18(P)
Major Ports	98.77 (00.6)	99.55 (00.8)	107.08 (07.6)	115.21 (07.6)	119.11 (03.4)	118.70 -(00.3)	118.91 (00.2)
Non-Major Ports	1.21 -(24.8)	0.93 -(23.1)	0.87 -(06.9)	0.83 -(04.7)	0.86 (03.8)	1.17 (36.7)	1.10 -(05.7)
All Ports	99.98 (00.2)	100.48 (03.9)	107.95 (07.4)	116.03 (07.5)	119.97 (03.4)	119.87 -(00.1)	120.01 (00.1)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.							

2.4.8 ANDHRA PRADESH

2.4.8.1 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.

2.4.8.2 Ports in Andhra Pradesh collectively handled 149.83 million tonnes of cargo during of 2017-18 compared with 130.62 million tonnes in 2016-17 thus registering increase of 14.7% in traffic handled by major and non-major ports of Andhra Pradesh. Non-major ports in Andhra Pradesh; reflecting a growth of 24.0% in 2017-18 and the cargo handled during 2016-17 and 2017-18 were 69.60 million tonnes and 86.29 million tonnes respectively.

2.4.8.3 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	2017-18(P)
Major Ports	67.42 -(00.9)	59.04 -(12.4)	58.50 -(00.9)	58.00 -(00.8)	57.04 -(01.7)	61.02 (07.0)	63.54 (04.1)
Non-Major Ports	45.63 (05.5)	51.81 (13.5)	58.69 (13.3)	83.42 (42.1)	72.73 -(12.8)	69.60 -(04.3)	86.29 (24.0)
All Ports	113.05 (01.6)	110.85 -(01.9)	117.19 (05.7)	141.42 (20.7)	129.77 -(08.2)	130.62 (00.7)	149.83 (14.7)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.							

2.4.9 ODISHA

2.4.9.1 Odisha 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 Odisha identified 14 potential sites for development of Minor Ports. To facilitate developers for development of Minor Ports, Government of Odisha framed the Port Policy during the year 2004.

2.4.9.2 The advantages for development of sea ports in Odisha 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 Odisha. Paradip port is the only major port in the State under the control of Government of India which is packed to accommodate increasing traffic.

2.4.9.3 Non-major ports in Odisha collectively handled 22.60 million tonnes of cargo during 2017-18 compared to 22.47 million tonnes in the year 2016-17. However, the cargo handled at major port during 2017-18 was 102.01 million tonnes compared to 88.96 million tonnes in the year 2016-17 registered an increase growth of 14.7%.

2.4.9.4 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 - Odisha: 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	2017-18(P)
Major Ports	54.25 -(03.2)	56.55 (04.2)	68.00 (20.2)	71.01 (04.4)	76.40 (07.6)	88.96 (16.4)	102.01 (14.7)
Non-Major Ports	5.08 (1170.0)	11.07 (117.9)	14.37 (29.8)	15.45 (07.5)	14.95 -(03.3)	22.47 (50.3)	22.60 (00.5)
All Ports	59.33 (05.1)	67.62 (14.0)	82.37 (21.8)	86.46 (05.0)	91.35 (05.7)	111.43 (22.0)	124.61 (11.8)
Figures in bracket represent percentage change over the previous year/period. (P) Provisional.							

2.4.10 WEST BENGAL

2.4.10.1 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 cargo handled at major ports in West Bengal during 2017-18 was 57.89 million tonnes as compared to 50.95 million tonnes handled in the year 2016-17 with registered growth of 13.6%.

2.4.10.2 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	2017-18(P)
Major Ports	43.25 -(09.0)	39.93 -(07.7)	41.39 (03.7)	46.29 (11.8)	50.29 (08.6)	50.95 (01.3)	57.89 (13.6)
Non-Major Ports	0	0	0	0	0	0	0
All Ports	43.25 -(09.04)	39.93 -(07.68)	41.39 (03.66)	46.29 (11.85)	50.29 (08.63)	50.95 (01.32)	57.89 (13.61)
Figures in bracket represent percentage change over the previous year/period. P- Provisional							

2.4.11 OTHER NON-MAJOR PORTS

2.4.11.1 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.

2.4.11.2 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	2017-18(P)
Andaman & Nicobar Islands	1.21 -(28.0)	1.07 -(11.6)	1.15 (07.5)	1.16 (00.5)	1.32 (14.4)	1.28 -(03.6)	1.90 (49.1)
Figures in bracket represent percentage change over the previous year/period. P- Provisional							

2.4.11.3 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.

2.4.11.4 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	2017-18(P)
Lakshadweep	0.03	0.03	0.12	0.12	0.12	0.00	0.00
Puducherry	6.42	6.91	6.28	4.96	5.97	9.11	8.12

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 965.36 million tonnes at the end of 2015-16 and further increased to 1451.19 million tonnes in the year 2017-18. The port-wise capacity for the year 2017-18 and traffic handled during 2017-18 is brought out in **Table 25**.

Table 25-Major Port-wise Capacity Utilization during 2017-18				
(MillionTonnes)				
S. No.	Name of Ports	Capacity	Traffic	Capacity Utilization (%)
1	Kolkata Ports of Trust*	21.20	17.4	82.1
2	Haldia Dock Complex	61.37	40.5	66.0
3	Paradip Port Trust	239.00	102.0	42.7
4	Visakhapatnam Port Trust	131.09	63.5	48.5
5	Kamarajar Ports Limited	84.00	30.5	36.3
6	Chennai Port Trust	134.00	51.9	38.7
7	VOC-Chidambaranar Port Trust	94.83	36.6	38.6
8	Cochin Port Trust	74.50	29.1	39.1
9	New Mangalore Port Trust	98.00	42.1	43.0
10	Mormugao Port Trust	63.00	26.9	42.7
11	Mumbai Port Trust	79.00	62.8	79.5
12	Jawaharlal Nehru Port Trust	118.00	66.0	55.9
13	Kandla Port Trust	253.20	110.1	43.5
	Total	1451.19	679.4	46.8

Note: *The total port capacity of Kolkata (including Haldia) Port for the year 2017-18 is given as 82.57 million tonnes. Hence the capacity of kolkata port has taken as 21.20 million tonnes figure as per the last year figure i.e. 2016-17 and for Haldia port is taken as 61.37 million tonnes based on the figure (82.57-21.20).

3.2 Cargo Traffic Targets during 2016-17 & achievement during 2017-18 (upto March, 2017-18) for Major ports.

Achievement upto March, 2017-18 against the projected targets of 2016-17 is given in **Table-26**.

Table 26: Annual Cargo Traffic Targets and Achievement during 2017-18 (upto March, 2017-18)				
(In Million Tonnes)				
S. No.	Name of Ports	Targets 2017-18	Achieved 2017-18	% age Achievement
1	Kolkata Ports of Trust	17.0	17.4	102.4
2	Haldia Dock Complex	38.0	40.5	106.6
3	Paradip Port Trust	100.0	102.0	102.0
4	Visakhapatnam Port Trust	63.0	63.5	100.9
5	Kamarajar Ports Limited	35.0	30.5	87.0
6	Chennai Port Trust	48.8	51.9	106.3
7	VOC-Chidambaranar Port Trust	38.0	36.6	96.3
8	Cochin Port Trust	28.5	29.1	102.1
9	New Mangalore Port Trust	41.0	42.1	102.7
10	Mormugao Port Trust	36.0	26.9	74.7
11	Mumbai Port Trust	63.0	62.8	99.7
12	Jawaharlal Nehru Port Trust	68.0	66.0	97.1
13	Kandla Port Trust	106.0	110.1	103.9
	Total	682.3	679.4	99.6

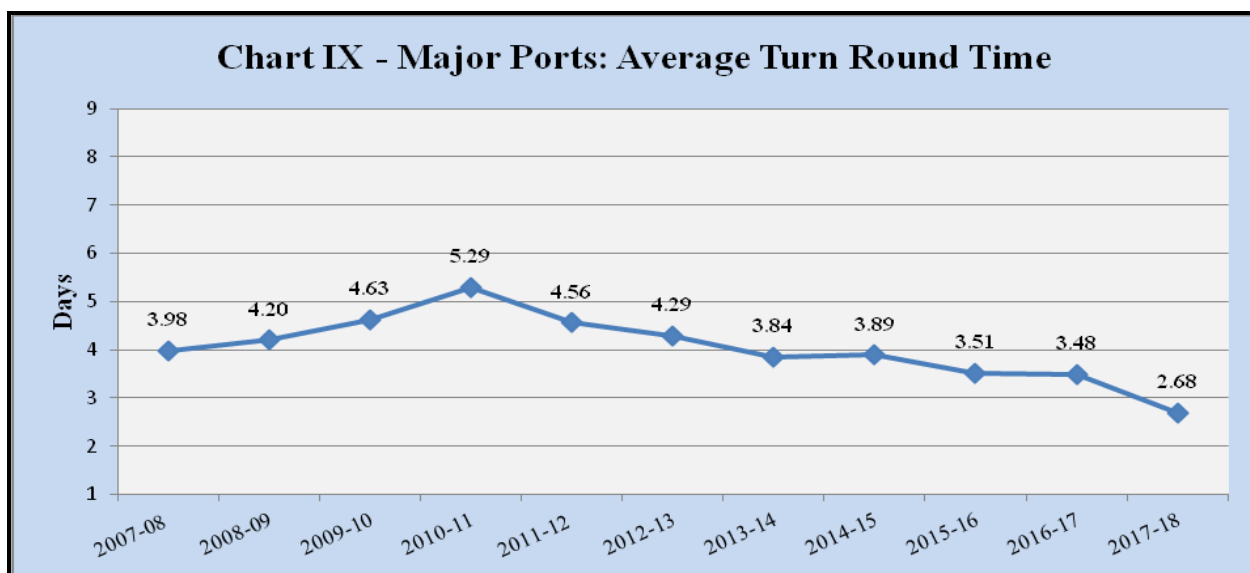
3.3 Port Efficiency

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 4.56 days in 2011-12. In 2012-13, the average TRT declined to 4.29 days and further improved to 3.84 days in 2013-14. However, TRT increased to 3.89 during 2014-15. The average TRT declined to 3.51 days in 2015-16 and declined to 3.48 days in 2016-17. The average TRT further declined to 2.68 days during 2017-18. However, the TRT varied in the range between 1.54 days at Cochin Port to 3.80 at Kolkata Port during 2017-18. Amongst the 12 major ports, improvement in TRT during 2017-18

compared to corresponding period of 2016-17 is reflected in all Major Ports except J.L Neharu, and Mumbai Port. Port-wise TRT for select years are given in **Table 27**. Average Turn Round Time at major ports for select years since 2007-08 to 2017-18 is presented in the **Chart IX** below.



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

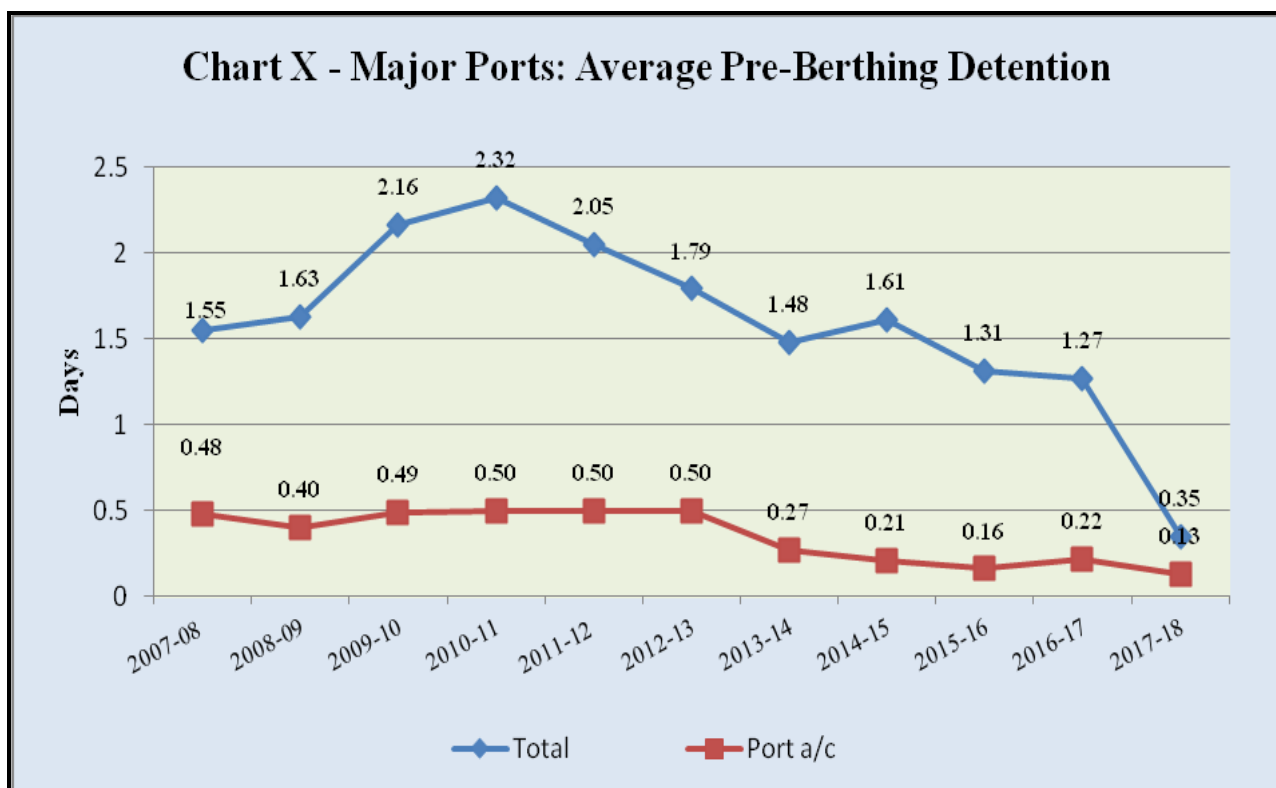
Table 27: Average Turn Round Time (days)

Port	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)
1	2	3	4	5	6	7
Kolkata D.S	4.72	4.51	4.97	4.78	4.43	3.80
Haldia D.C	3.95	3.77	3.36	3.27	5.47	3.76
Paradip	4.39	4.62	7.01	4.50	4.99	3.31
Vishakhapatnam	5.39	4.73	5.67	3.84	3.75	2.58
Ennore (Kamarajar)	2.95	4.24	4.32	6.87	2.68	2.20
Chennai	3.24	2.46	2.54	2.53	2.51	2.21
Tuticorin (Chidambaranar)	4.31	3.92	3.37	3.53	4.00	2.69
Cochin	1.58	1.76	1.69	2.18	1.99	1.54
New Mangalore	3.29	3.18	2.46	2.63	2.35	2.04
Mormugao	5.06	4.50	3.97	3.37	3.43	2.63
J.L.Nehru	2.48	2.26	2.24	2.31	1.96	2.24
Mumbai	5.58	4.25	4.09	3.29	2.48	2.73
Deendayal (Kandla)	6.33	5.66	4.90	4.28	4.51	2.51
All Ports	4.29	3.84	3.89	3.51	3.48	2.68

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 were remained same at 0.50 days in 2011-12 and 2012-13 respectively. Average PBDT declined to 0.27 days in 2013-14 and further declined to 0.21 days and 0.16 days in 2014-15 and 2015-16 respectively. Average PBDT on port account in the 2016-17 to 0.22 days and in declined 0.13 days in 2017-18. 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 2007-08 to 2017-18 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	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)
1	2	3	4	5	6	7
Kolkata D.S	0.61	0.56	0.71	0.50	0.57	0.00
Haldia D.C	2.29	2.21	1.43	0.66	2.49	1.33
Paradip	1.65	1.94	4.11	2.05	2.47	0.87
Vishakhapatnam	2.50	1.84	2.59	1.47	1.22	0.10
Ennore (Kamarajar)	1.33	2.38	2.51	4.73	0.96	0.00
Chennai	0.80	0.41	0.41	0.44	0.38	0.04
Tuticorin (Chidambaranar)	1.31	1.19	1.07	1.33	1.80	0.39
Cochin	1.09	0.97	0.81	0.66	0.48	0.00
New Mangalore	1.04	0.81	0.60	0.76	0.62	0.28
Mormugao	1.62	1.47	1.61	1.38	1.67	0.39
J.L.Nehru	1.31	1.08	0.80	1.17	0.77	0.37
Mumbai	1.62	1.18	1.69	1.27	0.46	0.02
Deendayal (Kandla)	3.58	2.72	2.52	1.98	2.02	0.12
All Ports	1.79	1.48	1.61	1.31	1.27	0.35

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 19080 tonnes in 2016-17 for major ports and further declined to 15333 in 2017-18 . However, average output per ship berth-day during 2017-18 is marked by substantial variation across major ports ranging from a high 24810 tonnes in case of Paradip port to a low of 4132 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 2017-18 over the corresponding period of the previous year is visible in all the ports except Deendayal (Kandla) Port. Average Output per Ship-berth day during 2017-18 is 15333 tonnes compared to 19080 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 2007-08 to 2017-18 is shown in **Chart XI** below

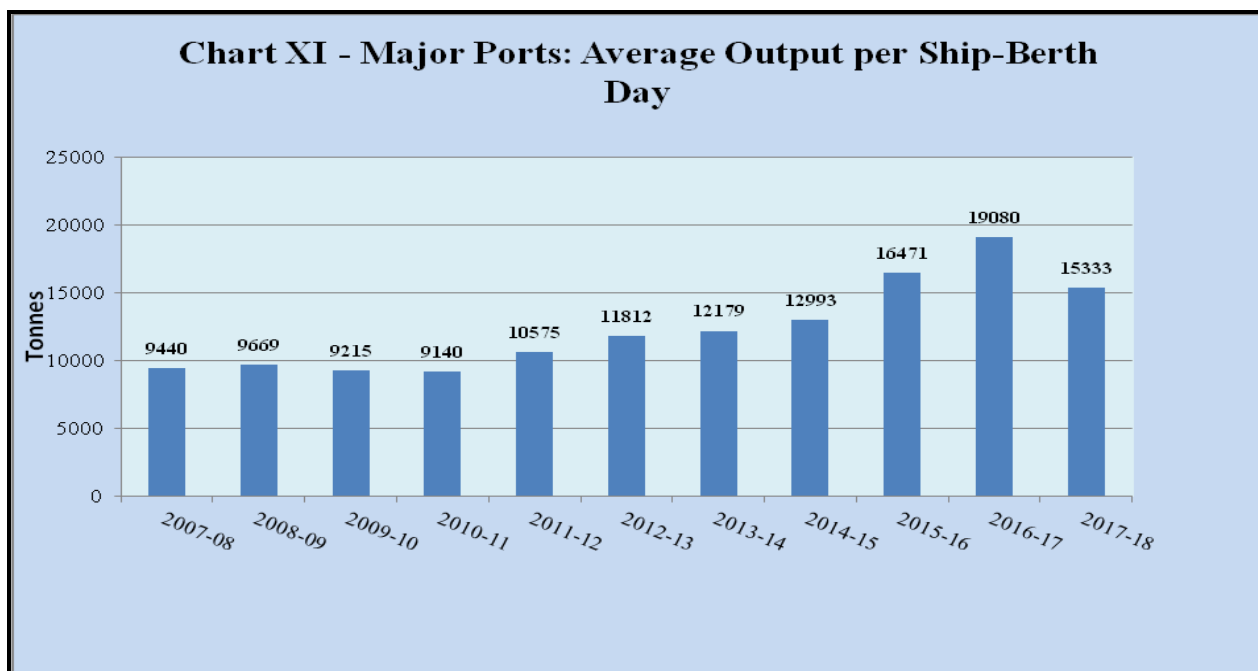


Table 29: Average Output per Ship Berth-day (Tonnes)

Port	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)
1	2	3	4	5	6	7
Kolkata D.S	2762	2963	3084	3201	6080	4132
Haldia D.C	6078	6130	6802	9126	12537	8332
Paradip	16625	18179	17736	26965	30245	24810
Visakhapatnam	10641	10925	10640	17179	16823	13528
Ennore (Kamarajar)	27741	22357	22613	31106	26235	24590
Chennai	12046	14268	14464	18976	19220	16014
Tuticorin (Chidambaranar)	7452	9633	10468	13619	13612	11961
Cochin	15878	15881	16906	20962	23539	20880
New Mangalore	15921	16314	19856	16165	17094	16378
Mormugao	11484	10018	12272	21542	30414	14525
J.L.Nehru	23319	23014	21310	23792	23897	23417
Mumbai	8709	7057	11055	18020	20915	9043
Deendayal (Kandla)	15728	15729	15159	16538	18235	18530
All Ports	11812	12179	12993	16471	19080	15333

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 31.03.2018 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

**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-Operational since Oct' 17.
2.	Development of Multi Cargo Terminal on DBFOT basis	Kamarajar Port Ltd	2.00	151.00	Operational since Aug' 17.
3.	Construction of Coal Berth No.3	Kamarajar Port Ltd	9.00	246.96	Civil work completed.
4	Construction of Coal Berth-4	Kamarajar Port Ltd	9.00	261.18	Civil work completed.
5.	Development of LNG Terminal on Captive Basis.	Kamarajar Port Ltd	5.00	5151.00	*Physical progress-90%.
6.	Construction of two New Off-shore Container berths & Development of Container Terminal berth on BOT basis in Mumbai Harbour.	Mumbai Port Trust#	9.60MTPA (1.00 Mn TEUs)	1461	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 Princes Dock is in progress. MbPT component- Fresh tenders for balance work of dredging and filling dock enclosure have been invited.

					<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, which is yet to be received.</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>
7.	Mechanized of berth No. 18(old no.12) for providing equipments for handling Bulk Cargo at NMPT base	New Mangalore Port Trust	6.73 MTPA	469.46	The civil work is substantially completed, erection of equipment will commence from May. The project schedule to complete by January 2019
8.	Development of Barge handling facility at Bharathi Dock under PPP model	Chennai Port Trust	1.35 MTPA	27.29	Project awarded to CBTP (construction of IMC Ltd.) on 30.01.2013, but due to non-fulfillment of conditions precedent, termination order issued in Feb-2016. Arbitration proceeding in progress. Alternative in-house project will be awarded after the completion of arbitration proceeding on the PPP Berge project.
9.	Development of EQ-1A berth on south side of EQ-1 berth in Inner Harbour for handling Thermal coal and Steam coal at Inner Harbor (IH).	Visakhapatnam Port#	7.36	313.39	Physical progress is 77 % Expected completion by June, 2016. Concession Agreement signed on 03.02.2014 with M/s. SEQ Vizag Coal Terminal Pvt. Ltd.,
10.	Installation of mechanized Fertilizer handling facilities at EQ-7 at Inner Harbor (IH).	Visakhapatnam Port#	5.21	217.58	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 filled Writ petition in High Court, Hyderabad.
11.	Up-gradation of the existing facility (OHC) and creating new facility (WQ-1) for iron ore handling on DBFOT basis.	Visakhapatnam Port#	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.

12.	Extension of existing Container terminal in outer harbor on DBFOT basis.	Visakhapatnam Port#	0.54 MTEUs	633.11	LOA issued to M/s VCTPL on 31.12.2013. Concession agreement is to be signed.
13.	Development of Multi-Purpose berths to handle clean cargo including container on BOT basis at Paradip Port.	Paradip Port trust	5	430.78	Stipulated completion April, 2019. Expected to be operational by May 2018.
14.	Development of New Iron Berth for handling of iron ore export at Paradip Port on BOT basis.	Paradip Port trust	10	7401.9	Stipulated completion April, 2019. Expected to be operational by December, 2018.
15.	Mechanization of EQ-1,2 &3 (3Berths) for handling export Coal Cargo (PPP Operator : JSW)	Paradip Port trust	30	14377.6	Stipulated completion December,2020.
16.	Development of new Coal Berth for handling Import Coal Cargo. (PPP Operator; Kakinada Port JV)	Paradip Port trust	10	6555.6	Stipulated completion April, 2021
17.	Development of fourth container terminal at JNP on DBFOT basis.	JNPT	Phase-I 30MTPA Phase-II 30MTPA Total- 60MTPA	79150.00	On December, 2014 JNPT awarded the concession for the prestigious 4 th container terminal to M/s. Bharat Mumbai container (Subsidiary of PSA, Singapore) on DBFOT basis with a capacity of 4.8 million tones with quay length of 2 kms. The project is taken up in 2 phases. The construction of Phases 1 is completed and operation was commenced from 22.12.2017. The scheduled completion of phase –II is 22.12.2022
18.	Redevelopment of Berths 8,9 and Barge Berth at the Port of Mormugao, Goa	Mormugao Port Trust	19.22 MTPA	1145.36	(i) Letter of Award is issued to M/s Sterlite Port Ltd., Tuticorin on 29.03.2016. (ii) Concession Agreement signed on 22.09.2016 with M/s Goa Sea Port Pvt. Ltd (GSPPL), SPV of M/s. Sterlite Port Ltd.

					(iii) Public hearing conducted from 29 th April 2017 to 5 th May 2017. (iv) Recommendation from Goa State Coastal Zone Management Authority (GCZMA) for CRZ clearance is pending since Nov. 2017. (v) Environment clearance is pending due to reason cited above.the process for EC clearance on public hearing completed on 05.05.2017.
19.	Construction of North Cargo berth-II for handling bulk cargoes on DBFOT basis-Tuticorin	VOCPT	7.00	335	Completed
20.	Construction dedicated berth for handling coastal cargo at V.O.C. Port Trust	VOCPT	1	38.91	Completed on 19.12.2017 and cargo handling on trail basis.
21.	Design, Construction and maintenance of Truck parking terminal at the Port Land opposite to Fisheries college in V.O. Chidambaram port. (Sagarmala Project)	VOCPT	-	23.69	Completed. Inaugurated in 26.02.2018
22.	Up gradation of CJ-I and CJ-II (berth construction)	VOCPT	18.00	97.76	5% work completed Scheduled date of Completion. Aug,2021
23.	Construction of shallow draught berth for handling construction material on PPP mode	VOCPT	2.00	65.37	Agreement signed on 17.01.2018. fulfillment of condition precedence under process
24.	Construction North cargo Berth-III under EPC mode.	VOCPT	10.22	36.52	80% of work completed. Schedule date of completion: July,2018
25.	Dredging in front of Coastal Berth	VOCPT	-	96.34	Work order issued on 24.08.2017 to M/s Jan de Null. The dredging activity was commenced on 24.03.2018 and will be completed on 04.04.2018.

26.	Widening of the Existing Korampallam surplus course bridge and ROB	VOCPT	-	41.55	LOI issued on 29.03.208.
27	Redevelopment of Berths 8, 9, and Barge Berths at the Port of Mormugao, Goa	Mormugao Port Trust	19.22 MMPTA	1145.00	(i) Letter of Award is issued to M/s Sterlite Port Ltd. Tuticorin on 29.03.2016. (ii) Concession Agreement signed on 22.09.2016 with (GSPPL), SPV of M/s Sterlite Port Ltd., (iii) Public hearing conducted from 29 th April, 2017 to 5 th May 2017 (iv) Recommendation from Goa state coastal Zone Management Authority (GCZMA) for CRZ clearance is pending since November 2017 (v) Environment clearance is pending due to reason cited above.
<p>BOT: Build Operate and Transfer; BOO: Build Own Operate; DBFOT: Design, Build, Finance, Operate and Transfer. Note: #The updated status of Project name at S. No. 6 and 9 to 12 has not been received as on 31.03.2018. Hence last year status has been updated.</p>					

**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.	Mechanization of CQ-1 &2 (2 Berths) for handling (Capacity – 20 MTPA)	Paradip Port Trust	20 MTPA	1103	To be initiated after commissioning of Development of New Coal Berth based on Techno-Economic viability.
2.	Optimization of inner harbor and construction of western dock.	Paradip Port Trust	30	2000	DPR, Geotechnical investigation Environmental clearance in progress. Targeted to be awarded in FY 2018-19.
3.	Construction of Outer Harbour	Paradip Port Trust	140	10000	Will be taken up after SI.No. 2 based on Techno- Economic viability.
4.	Dredging & Infrastructure development for handling bigger ships at 18 to 22 ID Harbour Wall Berths.	Mumbai Port Trust#	8.00 MT	613	Due to poor response to the project as suggested by M/s RITES, it is proposed to scrap the project.
5.	Barge handling facilities at Khori Creek	Kandla Port Trust#	4	100	Under planning stage.
6.	Construction of T shape Jetty at Tekra (Phase-II)	Kandla Port Trust#	14	1500	The scheme will spill over in 13 th five year plan. Under planning stage.
7.	Setting up of barge jetty at Tuna on captive use basis	Kandla Port Trust#	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.

8.	Construction of barge jetty at Tuna on BOT basis	Kandla Port Trust#	5.49	255.3	Feasibility Report, RFQ and TAMP proposal under approval.
9.	Strengthening of oil jetty 1 at KPT	Kandla Port Trust	0.78	14.29	LOA issued to M/s Indiana build infrastructure pvt. Ltd., Mumbai on 18.03.14. Work order issued on 20.5.2014. Work has been completed.
10.	Development of Port based multi product SEZ	Kandla Port Trust#	-	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.
12.	Capital dredging of the dock basin in front of Coal Jetty-I, Coal Jetty –II, Berth 3 & 4, Berth -7, Berth-8, Berth- 9, NCB –I,NCB-II, and NCB –III up to (-) 16.50 m depth and approach Channai up to (-) 17.20 m depth for a length of 10,350 m and widening of Port entrance channel from existing 153 m to 230m.	V.O. Chidambara nar Tuticorin	51.95 MTPA	3090.28	Revised PIB Memo submitted on: 17.04.2018 Issued of LOA for Dredging June, 2018 Completion for work (28 months) : oct, 2020.
13.	Development of Outer Barbour at Chennai Port (previously called Development of Mega Container Terminal). Under PPP mode on DBFOT 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.
14.	Development of Rajiv Gandhi Dry Port and Multi Modal Logistic Hub for Chennai Port in SIPCOT industrial park at Mappedu, 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.

15.	Development of Dry Dock facility at Timber pond/Boat basin in Chennai Port	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.
16.	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
17.	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
18..	Construction of a riverine jetty south of 2 nd Oil Jetty through DBFOT Basis.	Haldia Dock Complex under KoPT#	1.5 MTPA	471	Feasibility Study being undertaken, following which RFQ document would be issued.
19.	Construction of a riverine jetty south of 2 nd Oil Jetty through DBFOT Basis.	Haldia Dock Complex under KoPT#	1.5 MTPA	471	Feasibility Study being undertaken, following which RFQ document would be issued.
20.	Construction of a riverine jetty south of 2 nd Oil Jetty through DBFOT Basis.	Haldia Dock Complex under KoPT#	1.5 MTPA	471	Feasibility Study being undertaken, following which RFQ document would be issued.
21.	Construction of a riverine jetty south of 2 nd Oil Jetty through DBFOT Basis.	Haldia Dock Complex under KoPT#	1.5 MTPA	471	Feasibility Study being undertaken, following which RFQ document would be issued.

22.	Construction of a riverine jetty south of 2 nd Oil Jetty through DBFOT Basis.	Haldia Dock Complex under KoPT#	1.5 MTPA	471	Feasibility Study being undertaken, following which RFQ document would be issued.
23.	Development of Vasco Bay, (a)Development Fishing Harbour	Mormugao Port Trust	....	104	(a) DPR prepared by M/s. Aarvee Associates in July 2017. (b) CICEF, Bangalor vetted DPR and cost estimate and submitted report to M/o Agriculture & Dairy Farming on 0.01.2018 for release of grants. c) Port appointed IIT, Madras for preparation of DBR and tender/BOQ. Proof checking of EPC contract- work in progress. (d) Draft EIA prepared and submitted to Goa State Pollution Control Board in Nov.2017. Public hearing likely to be held during last week of May' 2018.
24	(b) Development of passenger Jetty	Mormugao Port Trust	....	21	(a) DPR prepared by M/s. Aarvee Associates in July 2017. (b) Port appointed IIT, Madras for preparation of DBR and tender /BOQ. Proof checking of EPC contract –work in progress. c) Draft EIA prepared and submitted to Goa State Pollution Control Board in Nov. 2017. Public hearing likely to be held during last week of May 2018.
25	c) Development of Liquid /POL/LPG Bearth at Vasco Bay.	Mormugao Port Trust	....	155.9	(a) DPR prepared by M/s. Aarvee Associates in July 2017. (b) Port has applied for NOC from PESO, Nagpur to handled POL products. c) Port appointed IIT, Madras for preparation of DBR and tender /BOQ. Proof checking of EPC contract –work in progress. (d) Draft EIA prepared and submitted to Goa State Pollution Control Board in Nov. 2017. Public hearing likely to be held during last week of May 2018.

26	(d) Genral Cargo Berth	Mormugao Port Trust	....	203	(a) DPR prepared by M/s. Aarvee Associates in July 2017. (b) Draft EIA prepared and submitted to Goa State Pollution Control Board in Nov. 2017. Public hearing likely to be held during last week of May 2018. c) Port will take up Project for execution in 2020-21.
26.	Construction of RO-RO cum GCB-2(own)	Kamarajar Port Limited	3 MTPA	320.00	* LoI issued on 29.03.2016. * Awaiting Environmental Clearance for commencement of work.
27.	Development of Captive Jetty by IOCL	Kamarajar Port Limited	3 MTPA	480.00	* Concession Agreement signed on 09.06.2016. * Condition precedent compliance is in progress. * Awaiting Environmental Clearance for Commencement of work.
28	Development of Marin Liquid Terminal-II on DBFOT Basis.	Kamarajar Port Limited	3 MTPA	393.00	* KPL issued LOA to the Consortium BPCL-HPCL on 14.02.2018. *Concession Agreement signing to be executed by KPL & BPCL-HPCL. Awaiting Environmental clearance for commencement of work.
29.	Mechanization of Berth No. 14 for handling containers and other clean cargo on PPP mode at NMPT	New Mangalore Port Trust	5.00 MTPA	200	The feasibility / DPR is under finalization, based on the outcome of the report the project would taken during 2018-19.
<p>BOT: Build Operate and Transfer; BOO: Build Own Operate; DBFOT: Design, Build, Finance, Operate and Transfer. Note: #The updated status of Project name at S. No. 4 to 8, 10 and 18 to 22 has not been received as on 31.03.2018. Hence last year status has been updated.</p>					

**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.</p>
2.	Captive jetty by Cairn Energy India Pvt. Ltd. Bhogat Dist. Jamnagar	Bhogat (Gujarat)#	7	1285	Construction completed, landing place declared. Agreement to be signed after GOG approval.
3.	Captive Jetty by Essar Salaya Bulk Terminal Limited.	Salaya (Gujarat)#	7	600	The Construction of Jetty is completed. Approach bund is under construction.

4.	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.
5.	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.
6.	Captive Jetty by M/s Godrej – Ro Ro jetty for handling of ODC cargo at Dahej SEZ	Dahej (Gujarat)	1	5.9	Construction permission granted by the Board in its meeting held on September 2015.
7.	Captive Jetty by M/s ISGEC – Ro Ro jetty for handling of ODC cargo at Dahej SEZ	Dahej (Gujarat)	1	55	Construction permission granted by the Board in its meeting held on September 2015.
8.	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.
9..	Establishing a captive port at Parangipettai by M/s IL &FS Limited	Parangipetta i Tamil Nadu	13 MMTPA	1349	Construction yet to commence.
10.	7 th Berth	Kakinada Deep Water Port, Andhra Pradesh	2.5	90	The Project is under progress.
11	Phase-2-Development of Krishnapatnam Port	Krishnapatnam Andhra Pradesh	44.30(Bulk & Gen Cargo) 3.30 MTEU (Container)	6600	Under construction

12.	East Coast Energy Pvt. Ltd.,	Meghavaram, Andhra Pradesh	Captive Port	2370	To be operational by the 1 st quarter of 2017
13.	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.
14.	Development of Pondicherry Port through private investment on BOT basis	Pondicherry	Phase – I 16.2 Phase - II 10.8	2785 N.A	The Arbitration ended on 18.07.2016 with the pronouncement of a “NIL” award against a claim of Rs. 1511 crores sought by the erstwhile private developer from the Government of Puducherry. However, on 17.10.2016 the private developer has filed a petition in the Puducherry Court for setting aside the Arbitral Award.
15.	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)	50	M/s Renuka Sugars Limited (RSL), Belagavi has been permitted to construct 2MTPA capacity Captive Jetty at Manki Port for which 75000 Sqm of port land has been sanctioned. RSL has not commenced developmental works.
16.	Anchorage operations at Honnavar Port by M/s Honnavar Port Pvt Ltd., Hyderabad	Honnavar, Karnataka	4.99	511.0	M/s Honnavar Port Private Limited (HPPL) has signed agreement with State Government for development of Honnavar Port. Total 137560 Sqm area of port land has already sanctioned and accorded approval for construction of jetty, breakwaters and dredging. Preliminary works are in progress.

Source: Maritime States/Maritime Boards.

Note: #The updated status of Project name at S. No. 1 to 5 has not been received as on 31.03.2018. Hence last year status has been updated.

**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 Greenfield port by M/s. IL & FS	Khambhat (Gujarat)#	Kept on hold due to Kalpsar Project.		
6.	Development of Greenfield 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 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.
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	(Bhogat)	5	12.6	Environmental clearance awaited.

Sl. No	Project	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
	Success Enterprise Ltd	Gujarat)#			
13.	M/s Sealand Port Pvt. Ltd (a group company of IL&FS) Coal Jetty & Multipurpose Jetty	Nana Layja, Kutch, Gujarat#	17	1000	In principle approval is granted by GoG (December 2014)l
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	Permission for Right of Way yet not received from MbPT
			Phase1! - 185 m.ton		
			Phase111 – over 400 m.ton		
20.	Construction of Terminal building	Panji Port	*	28.33	Project is in initial stage. *This is integral part of Capt. of ports jetty at Panji
21.	Captive port facility by M/s. Udangudi Power Corporation Ltd.	Udangudi Thoothukudi	6	9083	Port has been notified. Statutory clearances. Financial closure pending

Sl. No	Project	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
		Tamil Nadu			
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 Machilipatnam Port Ltd.	Machilipatnam Port Andhra Pradesh	45- Phase-1 Stage-1 250-Master Plan	6778	Land acquisition is in progress.
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	1994.0	Bidding process yet to be commenced for selecting developer.
28.	Development of Modern Sea Port at Tadri.	Tadri Karnataka	34.40	3800	The Government of Karnataka has taken decision to develop a Green field deep drafts modern part at Tadri. Karnataka infrastructure Development department nominated KSIIDC as nodal agency and preparation of DPR is in 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	1500	State government initiated development of 10MTPA capacity port & setting up of free trade ware housing zone at Belekeri at cost of Rs. 1500 Crores and prepared pre-feasibility report, RFP & Q and draft concessional agreement for inviting public tender for identifying developer. Ministry of Shipping, GOI, also shown interest for development of Belekeri Port.
32.	Development of captive jetty at Pavinkurva, Kunta	Pavinkurve Port(Newly declared port)	7.6	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.

Source: Maritime States/Maritime Boards.

Note: #The updated status of Project name at S. No. 1 to 6, 8 to 14 and 16 has not been received as on 31.03.2018. Hence last year status has been updated.

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
Kolkata	2014-15	626	63	595	270	147	0	8110	528	5472	15283
	2015-16	664	12	1660	297	201	14	9263	578	4671	16782
	2016-17	905	0	0	20	86	2030	9887	636	3882	16810
	2017-18(P)	781	0	4	16	140	151	9760	640	6538	17390
Haldia	2014-15	3618	2337	1238	6005	797	0	1958	102	15057	31010
	2015-16	5067	869	1552	5722	638	0	1376	85	18283	33507
	2016-17	4766	1160	1818	5523	467	0	2467	136	17940	34141
	2017-18(P)	8141	1576	2181	7317	703	0	2672	156	17906	40496
Paradip	2014-15	17976	3499	30063	7645	4429	0	67	4	7332	71011
	2015-16	20567	2889	31250	8221	4361	0	132	5	8977	76397
	2016-17	27695	10250	25845	10162	4064	0	42	2	10900	88958
	2017-18(P)	33775	12189	29047	10625	4453	0	98	7	11826	102013
Visakhapatnam	2014-15	13129	8365	2779	6074	2558	75	4372	248	20652	58004
	2015-16	14873	6088	3393	5108	2795	86	5145	245	19547	57035
	2016-17	13051	11620	3471	4289	2664	559	6428	367	18938	61020
	2017-18(P)	16050	10872	2948	5764	2873	76	6835	389	18119	63537
Chennai	2014-15	12659	0	0	0	542	37	29945	1552	9358	52541
	2015-16	11891	0	0	0	260	0	30207	1565	7700	50058
	2016-17	12216	0	0	0	268	571	28850	1495	8309	50214
	2017-18(P)	13503	0	0	0	229	154	29905	1549	8090	51881
Kamarajar	2014-15	1894	0	24222	0	0	0	0	0	4135	30251
	2015-16	2443	0	25537	75	0	0	1	0	4150	32206
	2016-17	2648	0	23017	79	0	0	1	0	4275	30020
	2017-18(P)	4338	0	22970	199	0	55	52	3	2832	30446
Chidambaranar	2014-15	366	46	8305	0	1562	59	11034	560	11042	32414
	2015-16	475	86	11491	3305	1511	378	12388	612	7215	36849
	2016-17	439	0	10824	3426	1641	1906	12991	642	7236	38463
	2017-18(P)	639	0	9795	0	1401	1161	14192	698	9395	36583
Cochin	2014-15	14017	0	0	98	445	0	5246	366	1789	21595
	2015-16	13773	0	88	0	252	95	5785	419	2102	22095
	2016-17	15740	0	44	0	252	174	6840	491	1957	25007
	2017-18(P)	19570	0	44	0	223	0	7692	556	1609	29138
New Mangalore	2014-15	21471	1517	2726	5452	741	7	920	63	3732	36566
	2015-16	21966	454	3319	3051	811	27	1106	76	4848	35582
	2016-17	23032	2947	3533	3387	488	248	1411	95	4890	39936
	2017-18(P)	24716	4893	709	138	692	51	1743	115	9113	42055
Mormugao	2014-15	571	758	2000	6568	227	0	312	22	4275	14711
	2015-16	559	3965	3727	7808	223	0	345	26	4149	20776
	2016-17	627	15053	2514	8466	199	0	402	30	5920	33181
	2017-18(P)	629	10259	1999	8514	182	0	425	32	4889	26897
J. L. Nehru	2014-15	3330	0	0	0	627	0	56933	4467	2911	63801
	2015-16	3419	0	0	0	0	0	56790	4491	3818	64027
	2016-17	3829	0	0	0	0	0	54530	4500	3793	62152
	2017-18(P)	4642	0	0	0	0	0	57867	4834	3495	66004
Mumbai	2014-15	35837	0	4304	0	448	683	544	45	19844	61660
	2015-16	35669	0	3451	0	439	961	574	43	20025	61119
	2016-17	35761	0	4204	0	283	430	639	43	21812	63129
	2017-18(P)	37680	0	2473	0	288	772	556	42	21059	62828
Deendayal (Kandla)	2014-15	55589	1160	9725	242	4502	2223	0	0	19056	92497
	2015-16	54994	952	14784	217	4532	812	56	3	23111	99458
	2016-17	59516	735	15059	496	3645	586	175	5	25230	105442
	2017-18(P)	62196	1263	13241	546	3704	599	1838	118	26712	110099
All Ports	2014-15	181083	17745	85957	32354	17025	3084	119441	7957	124655	581344
	2015-16	186360	15315	100252	33804	16023	2373	123168	8148	128596	605891
	2016-17	200225	41765	90329	35848	14057	6504	124663	8442	135082	648473
	2017-18(P)	226660	41052	85411	33119	14888	3019	133635	9139	141583	679367

P : Provisional

Source: BPS and Major Ports and Indian Ports Association.

Annex-II

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	2014-15	163630	5632	8925	79987	7529	43677	26715	336095
	2015-16	174875	7511	9075	65903	10331	47930	24153	339778
	2016-17	180315	9379	9730	62421	8704	53124	22066	345739
	2017-18(P)	189713	11582	9338	65411	7316	66312	21097	370769
Maharashtra	2014-15	1247	8824	2120	10924	171	0	4009	27295
	2015-16	3225	7611	2243	12173	151	0	3446	28849
	2016-17	2161	15049	2506	11136	243	0	3799	34894
	2017-18(P)	2478	13808	2192	14809	481	0	4138	37906
Andhra pradesh	2014-15	1403	10527	2492	48662	5362	1382	13590	83418
	2015-16	1428	1620	1978	46203	5956	1807	13741	72733
	2016-17	2711	2983	1657	39521	4870	4246	13615	69603
	2017-18(P)	1459	5933	1414	45179	5194	7793	19316	86288
Goa	2014-15	0	347	1	412	0	0	0	760
	2015-16	0	260	0	170	0	0	0	430
	2016-17	0	117	0	0	0	0	0	117
	2017-18(P)	0	72	0	0	0	0	0	72
Tamil Nadu	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
	2017-18(P)	706	0	300	0	32	0	65	1103
Karnataka	2014-15	40	0	85	0	47	0	479	651
	2015-16	82	0	81	0	57	0	615	835
	2016-17	111	0	86	0	40	0	470	707
	2017-18(P)	447	0	47	0	36	0	150	680
Others states / Uts #	2014-15	537	1465	600	16752	551	430	1509	21844
	2015-16	516	381	824	17425	421	375	2567	22509
	2016-17	492	6927	1538	20676	348	442	2578	33001
	2017-18(P)	411	5642	1527	19989	197	486	4503	32755
All Non Major PORTS	2014-15	167276	26795	14224	156737	13952	45489	46415	470888
	2015-16	180672	17383	14205	141874	16946	50112	44798	465989
	2016-17	186393	34455	15915	133754	14241	57812	42661	485231
	2017-18(P)	195214	37037	14818	145388	13256	74591	49269	529573
#	: 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-
As on 31.3.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-
As on 31.3.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-
As on 31.3.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-
As on 31.3.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-
As on 31.3.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-
As on 31.3.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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		78.00**	234.00	121.00	66.00	134.00	79.00	74.00	98.00	63.00	78.00	246.00	88.00	1359.00
As on 31.3.18		82.57**	239.00	131.00	84.00	134.00	94.83	74.50	98.00	63.00	79.00	253.20	118.00	1451.19

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), GTPL (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

**Capacity of Kolkata Port Trust and Haldia Dockyard System is not given separately. Hence for the year 2016-17 & 2017-18, the capacity of both ports have been given combined figure.

Capacity of commodity-wise breakup for each port for the year 2016-17 & 2017-18 has not been given.Hence the capacity of Port wise figure is given.

Source : Development Wing - Department of Shipping.