

भारत के पत्तन क्षेत्र का अद्यतन
UPDATE ON INDIAN PORT SECTOR
(30.09.2019)



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



PREFACE

As per the decision of the Maritime State Development Council (MSDC), the Transport Research Wing in the Ministry of Shipping has been bringing out the biannual publication "*Update on Indian Port Sector*". Present issue (upto September, 2019) is thirty third in the series of the publication "*Update on Indian Port Sector*". The last issue contained data up to March, 2019.

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 30th September, 2019. 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
January 22, 2020

V. K. 22/1/2020.
Gopal Krishna

Officers associated with this publication

Sh. Sunil Kumar Singh
Adviser (Statistics)

Smt. Priyanka Kulshreshtha
Director

Sh. Santosh Kumar Gupta
Deputy Director

Sh. Jagdish Chand
Senior Statistical Officer

Smt. Savita Mittal
Junior Investigator

Sh. Gopal Yadav
Junior Statistical Officer

UPDATE ON INDIAN PORT SECTOR (UP TO 30.09.2019)

C O N T E N T S

Section No.	Subject	Page No.
1	India's position in World Economy and Recent Trends in Cargo Traffic and Policy Initiatives	1-35
2	Policy and Performance of Maritime States	36-46
3	Performance Indicators of Major and Non-Major Ports	47-53
4	Private Sector/Captive/Joint Sector Port Projects	54-69
ANNEXURES		
I	Commodity-wise Traffic Handled at Major Ports	70
II	Commodity-wise Traffic Handled at Non-Major Ports	71
III	Commodity-wise Capacity Available at Major Ports	72
IV	Capacity of (Non Major Ports) States Maritime Boards /State Directorates	73

1. RECENT TRENDS IN CARGO TRAFFIC AND POLICY INITIATIVES

1.1 INDIA AND WORLD ECONOMY

1.1.1 Global growth is forecast at 3.0 percent for 2019, its lowest level since 2008-09 and a 0.3 percentage point down from the April 2019 (World Economic Outlook Forecast). Growth is projected to pick up to 3.4 percent in 2020 (a 0.2 percentage point downward revision compared with April), reflecting primarily a projected improvement in economic performance in a number of emerging markets in Latin America, the Middle East, and emerging and developing Europe that are under macroeconomic strain. A slightly higher growth rate is projected for 2021-24. This global growth pattern reflects a major downturn and projected recovery in a group of emerging market economies. By contrast, growth is expected to moderate into 2020 and beyond for a group of systemic economies comprising the United States, Euro area, China and Japan – which together account for close to half of global GDP.

1.1.2 The group of emerging market economies that have driven part of projected decline in growth in 2019 and account for the bulk of the projected recovery in 2020 include those that have either been under severe strain or have underperformed relative to past averages. In particular, Argentina, Iran, Turkey, Venezuela, and smaller countries affected by conflict, such as Libya and Yemen, have been or continue to be experiencing very severe macroeconomic distress. Other large emerging market economies – Brazil, Mexico, Russia, and Saudi Arabia, among others – are projected to grow in 2019 about 1 percent or less, considerably below their historical averages.

In India, growth softened in 2019 as corporate and environmental regulatory uncertainty, together with concerns about the health of the non-bank financial sector, weighed on demand. Growth has also weakened in China, where the regulatory efforts needed to rein in debt and the macroeconomic consequences of increased trade tensions have taken a toll on aggregate demand.

1.1.3 Among advanced economies, growth in 2019 is forecast to be considerably weaker than in 2017-18 in the Euro area, North America, and smaller advanced Asian economies. This lower growth reflects to an important extent a broad – based slowdown in industrial output resulting from weaker external demand (including from China); the widening global repercussions of trade tensions and increased uncertainty on confidence and investment; and a notable slowdown in global car production, which has been particularly significant for Germany. Growth is forecast to remain broadly stable for the advanced

economy group at 1.75 percent in 2020, with a modest pickup in the euro area offsetting a gradual decline in US growth. Over the medium term, growth in advanced economies is projected to remain subdued, reflecting a moderate pace of productivity growth and slow labor force growth as population's age.

1.1.4 Projected growth for 2019, at 3.0 percent, is the weakest since 2009. Except in sub-Saharan Africa, more than half of countries are expected to register per capita growth lower than their median rate during the past 25 years. The marked declaration reflects carryover from broad-based weakness in the second half of 2018, followed by a mild growth uptick in the first half of 2019 and supported, in some cases, by more accommodative policy stances (such as in China and, to some extent, the United States.). With growth estimates for both the second half of 2018 and the first half of this year marked down, the 2019 growth projection is 0.3 percentage point weaker than in the April 2019 WEO.

1.1.5 The forces behind the slowdown in global growth during 2018-19 apart from the direct effect of very weak growth or contractions in stressed economies – include a return to a more normal pace of expansion in the US economy; softer external demand and disruptions associated with the rollout of new car emission standards in Europe, especially Germany; weaker macroeconomic conditions, largely because of idiosyncratic factors, in a group of key emerging market economies such as Brazil, Mexico, and Russia; a softening in China's growth because of necessary financial regulatory strengthening and drag from trade tensions with the United States; slowing demand from China and broader global trade policy uncertainty weighing on East Asian economies; a slowdown in domestic demand in India; and the shadow cast by the possibility of a no-deal Brexit on the United Kingdom and the European Union more broadly.

1.1.6 For advanced economies, growth is projected to soften to 1.7 percent in 2019 and 2020. The forecast is 0.1 percentage point lower for 2019 than in the April 2019 WEO. Growth in the emerging market and developing economy group is expected to bottom out at 3.9 percent in 2019, rising to 4.6 percent in 2020. The forecasts for 2019 and 2020 are 0.5 percentage point and 0.2 percentage point lower, respectively, than in April, reflecting downward revisions in all major regions except emerging and developing Europe.

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	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	April -September	
								2018-19	2019-20
Trends in India's Select : Macro Parameters									
I. Total Cargo	2.2	4.1	8.2	1.9	5.8	6.6	5.9	7.8	2.8
(a) Major Ports	-2.6	1.8	4.7	4.2	7.0	4.8	2.9	5.1	1.5
(b) Non Major Ports	9.7	7.5	12.9	-1.1	4.2	9.0	9.9	11.3	4.5
II.GVA overall	5.4	6.1	7.2	8.0	7.9	6.9	6.6	7.3	4.6
(a) Agriculture	1.5	5.6	-0.2	0.6	6.3	5.0	2.9	5.0	2.1
(b) Industry	3.3	3.8	7.0	9.6	7.7	5.9	6.9	8.2	1.6
(c) Services	8.3	7.7	9.8	9.4	8.4	8.1	7.5	7.2	6.8
III. Foreign Trade									
(a) Export in \$ value	-1.8	4.7	-1.3	-15.5	5.2	10.0	8.7	12.1	-2.5
(b) Import in \$ value	0.3	-8.3	-0.5	-15.0	0.9	21.1	10.4	17.6	-5.7
Trends in Select : Global Indicators									
IV. World Output^	3.5	3.5	3.6	3.4	3.4	3.8	3.6	3.0F	3.4f
(a) Advanced Economies	1.2	1.4	2.1	2.3	1.7	2.5	2.3	1.7F	1.7f
(b) Developing Economies	5.3	5.1	4.7	4.3	4.6	4.8	4.5	3.9F	4.6f
V. World Economic Growth	2.2	2.2	2.5	2.6	2.5	3.1	3.0	-	2.3F
(a) Advanced Economies	1.1	1.1	1.7	2.2	1.7	2.3	2.2	-	1.6F
(b) Developing Economies	4.7	4.6	4.4	3.8	3.9	4.4	4.2	-	3.5F
(c) Transition Economies	3.3	2.0	0.9	-2.2	0.3	2.1	2.8	-	1.4F
VI. World Trade Volume (Goods)	3.1	3.6	3.9	2.8	2.3	5.7	3.6	1.1F	3.2f
VII. Export Volume growth (Goods)									
(a) Advanced Economies	2.9	3.2	4.0	3.8	1.8	4.7	3.1	0.9F	2.5f
(b) Developing Economies	3.5	4.7	3.3	1.4	3.0	7.3	3.9	1.9F	4.1f
VIII. Import Volume (Goods)									
(a) Advanced Economies	1.7	2.6	3.9	4.8	2.6	4.7	3.0	1.2F	2.7f
(b) Developing Economies	5.4	5.1	4.3	-0.9	1.8	7.5	5.1	0.7F	4.3f
IX. World Seaborne Trade*	4.6	3.4	3.5	1.8	2.6	4.1	2.8	NA	NA
(a) Goods Loaded	4.7	3.5	3.5	1.8	2.7	4.1	2.7	NA	NA
(b) Goods Unloaded	4.4	3.4	3.5	1.8	2.6	4.1	2.8	NA	NA
I. Based on data from Major Ports and Non Major Ports II Based on Statement of Provisional estimates of Annual National Income, 2019-20 & Quarterly estimates of GDP for the second Quarter (Q2) of 2019-20 at constant prices, 2011-12 series & press release on estimates of GDP, Central Statistical Office, MOSPI, dated. 29.11.2019 III. Based on Department of Commerce, DGCI&S and RBI Bulletin dated 15.10.2019 IV,VI, VII & VIII Based on World Economic Outlook, November,2019, IMF; V & IX. Based on Review of Maritime Transport, 2019 (November), UNCTAD Note: For item Nos. IV, V, VI, VII, VIII & IX year 2012-13 refers to calendar year 2012 and so on. * growth in total goods loaded plus unloaded; NA ; Not Available (P) Provisional ^Real GDP F- Forecast for the year 2019, f- Forecast for the year 2020									

Selected Emerging Trends Affecting Seaborne Trade

1.1.7 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.

1.1.8 Maritime transport remains the backbone of globalized trade and the manufacturing supply chain, as more than four fifths of world merchandise trade by volume is carried by sea (**Review of Maritime Transport, 2019, UNCTAD**). However, growth in international maritime trade fell slightly in 2018, owing to softer economic indicators amid heightened uncertainty and the build-up of wide-ranging downside risks. This decline reflects developments in the world economy and trade activity. Volumes increased at 2.7 per cent during 2018, below the historical average of 3.0 per cent from 1970–2017 and 4.1 per cent in 2017 (**Table 2(a)**). Nonetheless, total volumes reached a milestone in 2018, when they **achieved an all time high of 11 billion tonnes- the first time on UNCTAD record**. Dry bulk commodities, followed by containerized cargo, other dry bulk, oil, gas and chemicals, contributed the most to this growth.

1.1.9 Tanker trade shipments (oil, gas and chemicals), accounted for 29.0 per cent of total maritime trade volume, down from 55 per cent nearly five decades earlier. This is consistent with the ongoing shift in the maritime trade structure that is largely rooted in the 1980s. The decade saw a decrease in tanker trade of 6.2 percent, reflecting the constrained petroleum consumption in main consumer countries that followed the oil shocks of the 1970s. Over the same period, major bulks, including iron ore, grain and coal, increased by more than half. Containerized cargo expanded at the fastest rate, with volumes rising at an annual average rate of 8.0 percent between 1980 and 2018.

Table 2 (a) : Developments in International Seaborne Trade					
(Million Tonnes Loaded)					
Year	Tanker Trade @	Main Bulk#	Other Dry Cargo*	Total	Growth
2000	2163	1186	2635	5984	
2007	2747	1811	3478	8036	34.3
2008	2742	1911	3578	8231	2.4
2009	2641	1998	3218	7857	-4.5
2010	2752	2232	3423	8408	7.0
2011	2785	2364	3626	8775	4.4
2012	2840	2564	3791	9195	4.8
2013	2828	2734	3951	9513	3.5
2014	2825	2964	4054	9842	3.5
2015	2932	2930	4161	10023	1.8
2016	3058	3009	4228	10295	2.7
2017	3146	3151	4419	10716	4.1
2018	3194	3210	4601	11005	2.7
(@) crude oil refined petroleum products gas and chemicals # Main bulk includes data on iron ore, grain, coal, bauxite/alumina and phosphate rock. Since 2006, main bulks include data on iron ore, grain and coal only. Data relating to bauxite/alumina and phosphate are included under "Other dry cargo". *Minor bulks, containerized trade and residual general cargo. Source: Review of Maritime Transport, 2019, UNCTAD					

1.1.10 In 2018, developing countries continued to account for most global maritime trade flows, both in terms of exports (goods loaded) and imports (goods unloaded). These countries loaded an estimated 58.8 percent in 2018 and unloaded 64.5 percent of this total (Table 2 (b)). Since 2000, the contribution of developing countries to maritime trade has shifted, reflecting their growing role as major exporters of raw materials, as well as major exporters and importers of finished and semi-finished goods. Participation in containerized trade, however, has been concentrated in Asia, notably in China and neighbouring countries. Other developing regions did not contribute equally, a reflection of their varying degrees of integration into global value chains and manufacturing networks.

1.1.11 By contrast, developed countries saw their share of both types of traffic decline over time, hovering at around one third in terms of goods loaded and unloaded, respectively. The share of transition economies remained relatively smaller. A total of 6.5 percent of world maritime trade volumes were loaded in these economies' ports and less than 1.0 percent were unloaded in their territory.

Table 2 (b): World Seaborne Trade by type of Cargo & country group, 2017-18

Country Group	YEAR	Good loaded				Good unloaded				
		Total	Crude Oil	Other tanker trade*	Dry Cargo	Total	Crude Oil	Other tanker trade*	Dry Cargo	
Millions of tons										
World	2017	10716.2	1874.6	1271.6	7570.1		10702.3	2033.7	1289.4	7379.2
	2018	11005.0	1886.2	1308.1	7810.7		11002.2	2048.5	1321.8	7631.9
Developed Economies	2017	3709.0	152.7	491.2	3065.1		3795.0	979.1	494.7	2321.2
	2018	3821.7	157.7	511.2	3152.7		3822.9	946.5	495.8	2380.5
Transition Economies	2017	694.4	206.8	41.6	445.9		81.4	0.3	4.6	76.4
	2018	713.3	203.8	39.6	469.9		86.5	0.3	4.8	81.3
Developing Economies	2017	6312.8	1515.0	738.8	4059.0		6825.9	1054.3	790.0	4981.6
	2018	6469.9	1524.7	757.3	4188.0		7092.8	1101.6	821.2	5170.0
Africa	2017	740.9	291.3	70.4	379.1		496.8	40.5	93.8	362.6
	2018	767.2	289.3	73.8	404.0		516.3	42.5	93.9	380.0
America	2017	1371.8	225.2	71.9	1074.7		617.2	47.5	141.4	428.2
	2018	1403.7	219.3	78.3	1106.8		652.5	51.8	149.0	451.8
Asia	2017	4192.0	996.9	595.6	2599.5		5696.9	965.4	549.4	4182.1
	2018	4290.7	1014.4	604.1	2672.1		5908.3	1006.5	572.5	4329.3
Oceania	2017	8.1	1.6	0.8	5.7		14.9	0.8	5.4	8.7
	2018	8.4	1.6	1.0	5.8		15.6	0.8	5.8	9.0

*Refined petroleum products, gas and chemicals

Source: Review of Maritime Transport, 2019, UNCTAD

1.1.12 With respect to regional distribution of global maritime trade, 41 percent of the total goods loaded in 2018 originated in Asia and 61 percent of total goods unloaded were received in this same region. Over the years, the participation of Africa declined, particularly in terms of goods loaded, reflecting the reduced importance of traditional African exporters of liquid and dry bulk cargoes. This was only partly compensated for by alternative raw material sources from Africa, not by Africa becoming more active in exporting goods with more value added and goods that are generally carried in containers, including manufactured goods and processed food or industrial products. The relative decline of Latin American countries as a source of trade volumes is equally notable. In contrast, Asian countries have experienced a large increase in intraregional trade mostly based on manufactures trades and

reflecting fragmented production processes. Parts are generally manufactured in multiple locations across Asia and assembled in another location. This was not observed in Africa and only to a limited extent in Latin America, due to in part to the similarities in factor endowments in the region and to limitations in infrastructure and shipping services (Review of Maritime Transport, 2019, UNCTAD).

Seaborne Trade by Cargo Type

Crude Oil and Petroleum products

1.1.13 In tandem with the world economy and trade, and further shaped by country-specific trends, most notably in China, growth slowed down across nearly all cargo segments except for minor bulks, gas and refined petroleum product trades. After strong growth in 2017, tanker trade dwindled in 2018. The geographical dispersion of trade in oil in East Asia continued in 2018. Exports were concentrated less on traditional exporters from Western Asia and included suppliers from the Atlantic basin (Angola, Brazil, Canada, Nigeria and the United States). As shown in **Table 2(c)**, global tanker trade increased by 1.5 per cent in 2018, hampered by fewer crude oil shipments. A sharp decline in oil trade growth was partly offset by rapidly expanding gas trade (Liquefied Natural Gas and Liquefied Petroleum Gas).

Table 2(C) Oil and gas trade during 2017 and 2018

(In Million Tonnes)				
S. No.		2017	2018	Annual Percentage change (2018 w.r.t. 2017)
1	Crude Oil	1874.6	1886.2	0.6
2	Other tanker trade of which	1271.6	1308.1	2.9
2(a)	Liquefied Natural Gas	292	318	8.9
2(b)	Liquefied Petroleum Gas	90	97	7.8
	Total Tanker Trade	3146.2	3194.3	1.5

Other tanker trade includes refined petroleum products, gas and chemicals.

Source: Review of Maritime Transport, 2019, UNCTAD

Table 2(d) Major producers and consumers of Oil and Natural gas, 2018
(World market share in percentage)

Production				
S. No.	World	World Oil Production	Oil Refinery Capacities	World Natural Gas Production
1	Africa	9%	2%	6%
2	Asia Pacific	8%	35%	16%
3	Developing America	9%	8%	6%
4	Europe	4%	15%	6%
5	North America	22%	21%	26%
6	Transition Economies	15%	8%	22%
7	Western Asia	33%	11%	18%
	Total	100%	100%	100%

Consumption				
S. No.	World	World Oil Consumption	Oil Refinery throughput	World Natural Gas Consumption
1	Africa	4%	3%	4%
2	Asia Pacific	36%	36%	21%
3	Developing America	9%	5%	7%
4	Europe	15%	15%	12%
5	North America	23%	22%	24%
6	Transition Economies	4%	8%	16%
7	Western Asia	9%	11%	16%
	Total	100%	100%	100%

Source: Review of Maritime Transport, 2019, UNCTAD

Note: Oil includes crude oil, shale oil, oil sands and natural gas liquid (the liquid content of natural gas where this is recovered separately). The term does not include liquid fuels from other sources such as biomass and coal derivatives.

1.1.14 UNCTAD estimates, that world trade in crude oil was 1.9 billion tons in 2018, following an increase of less than 1.0 percent. Growth was partly limited by declining imports into Europe and the United States and a slowdown in import demand in China, owing to refinery capacity constraints suffered earlier during the year. To put things in perspective, in China, Crude oil imports increased by about 15.6 percent in 2016, 9.2 percent in 2017 and 7.3 percent in 2018 (Clarksons Research, 2019c). Disruptions on the supply side involving the Islamic Republic of Iran and the Bolivarian Republic of Venezuela, as well as supply cuts led by the Organization of the Petroleum Exporting Countries, weighed on crude oil shipments. However, trade in ton-miles recorded stronger growth.

Liquefied Natural Gas and Petroleum Gases

1.1.15 Trade in refined petroleum products was held up by falling imports from Brazil and South-East Asia and the drawing on stocks in some regions. However, firm import demand in Mexico and expanding shipments from Western Asia and the United States helped offset the negative trend somewhat (Clarksons Research, 2018a). An overview of global players in the oil and natural gas sector is presented in **Table 2(d)**.

Gas trade continued its bullish growth, supported by growing supply capacity and ongoing environmental and energy policy shifts. Liquefied natural gas shipments totalled 318 million tons in 2018, reflecting an increase of 8.9 percent (**Table 2(c)**). Demand growth originated mostly in Asia, bolstered by ongoing energy policy shifts and rising export capacity in Australia and the United States. In China, Liquefied Natural gas imports increased by over 40.0 percent in 2018, partly supported by the growing importance of its environmental agenda. Key exporters included Qatar, the largest liquefied natural gas supplier, Australia, Malaysia and the United States.

1.1.16 Liquefied Petroleum gas shipments picked up speed and increased by 7.8 percent, up from 2.2 percent in 2017. Strong import demand in India and Europe and expanding supply from the United States and Western Asia underpinned this performance. On the export side, shipments from the United States to Asia expanded, benefiting from growing production and pricing dynamics. Additional support was provided by growing supply in Western Asia as a result of petrochemical capacity expansion in the region (Clarksons Research, 2019a).

Dry Cargo Trades

Dry Bulk Shipments: Major and minor dry bulks

1.1.17 Trade in dry bulks supported maritime shipments in 2018 but trends varied by commodity, and some underlying risks became more apparent. Growth in dry bulks (major and minor bulks) trade; expanded by 2.6 percent in 2018, down from 4.0 percent in 2017. Backed by robust growth in coal, trade in major dry bulks (iron ore, coal and grain) grew at 1.9 percent in 2018 **Table 2(e)**, down from 4.7 percent in 2017. Risks to trade in dry bulks began materializing in 2018 as major bulks the mainstay of maritime trade in volume for more than two decades – came under pressure. Trade in major dry bulks increased steadily

for almost two decades at an average annual rate of 5.9 percent. The one exception was in 2015, characterized by weak growth.

Table 2(e) Dry Bulk Trade during 2017 and 2018

S. No.		2017	2018	Percentage change (2018 w.r.t. 2017)
1	Main Bulks* of which	3151	3210	1.9
1(a)	Iron Ore	1473	1476	0.2
1(b)	Coal	1202	1263	5.1
1(c)	Grain	476	471	-1.1
2	Minor Bulks of which	1947	2020	3.7
2(a)	Steel products	392	390	-0.5
2(b)	Forest products	365	378	3.6
	Total dry bulks	5098	5230	2.6

*Iron ore, Coal (Steam and coking,) and grains (wheat, coarse grain and soybean)

Source: Review of Maritime Transport, 2019, UNCTAD

1.1.18 Growth in iron ore shipments nearly came to a halt as import demand in China contracted. Coal trade expanded at 5.1 percent but remained, nevertheless, under pressure due to the growing concerns about coal's environmental footprint and the emphasis on diversifying the energy mix in major importing countries such those of the European Union, where coal imports contracted by about 5.8 percent in 2018. As trade in iron ore and coal represents 28.2 per cent and 24.1 percent share respectively, of global dry bulk trade, which in turn accounts for nearly half of global maritime trade, any pressure on these sectors does not bode well for shipping or demand for maritime transport services in general.

1.1.19 In China, maritime imports of major bulk commodities were estimated at 1.4 billion tonnes, or 43.5 percent of global maritime major bulk trade in 2018. After two decades of consistent growth, maritime iron ore imports in that country – 71.0 percent of global iron ore trade – contracted by close to 1.0 percent in 2018. Supply side constraints in Australia and Brazil – which together accounted for some 83.0 percent of the global market in 2018 – rising scrap use for steel industry in China and the use of existing iron ore inventories have limited the demand for iron ore imports in China. Other exporters, in order of magnitude are

South Africa, Canada, Sweden and India, which contribute only smaller shares to global iron ore trade.

1.1.20 Reflecting trends in the steel production sector and a slowdown in the global economy, minor bulk trade grew at an accelerated rate of 3.7 percent in 2018, up from 2.8 percent in 2017 (**Table 2(e)**). China is an important import market, representing roughly 20 percent of the market in 2018. Much of the expansion resulted from growth in metals and minerals, including nickel ore, manganese ore, cement and bauxite trade, which in recent years has seen growing shipments from Guinea to China. In 2018, Guinea consolidated its position as the leading world exporter of bauxite.

Other Dry Cargo Trades

Containerized Trade

1.1.21 In 2018, global containerized trade unfolded amid great uncertainty, ranging from the implications of the new IMO 2020 regulation imposing a sulphur cap on bunker fuels trade frictions, trends in China, weakness in consumer markets and unfavourable developments in the world economy. Together, these factors put a brake on containerized trade, with volumes expanding at a relatively much slower rate than in 2017. Volumes as measured in 20-foot equivalent units (TEUs) increased at 2.6 percent in 2018, down from 6 percent in 2017, bringing the total to 152 million TEUs (Review of Maritime Transport, 2019, UNCTAD).

Table 2(f) World Container Port throughput by region, 2017-2018
(In 20-foot equivalent units)

S. No.	World	2017	2018	Annual Percentage change (2018 w. r. t. 2017)
1	Africa	30398569	30940898	1.8%
2	Asia	488852650	510513120	4.4%
3	Europe	119359397	125888633	5.5%
4	Latin America and the Caribbean	48863196	51669025	5.7%
5	North America	58510434	61352043	4.9%
6	Ocenia	12003344	12896887	7.4%
	Total	757987590	793260606	4.7%

Source: Review of Maritime Transport, 2019, UNCTAD

1.1.22 As, shown in **Table 2(f)**, the global container port throughput increased by 4.7 percent in 2018, down from 6.7 percent in 2017. In 2018, 793.26 million TEUs were handled in container ports worldwide, reflecting an additional 35.28 million TEUs over 2017 (757.98 million TEUs were handled in 2017), an amount equivalent to the port cargo-handling activity of Singapore, the second leading global container hub in 2018. Growth was supported by traffic on the intra- Asian trade routes, firm consumer demand in the United States and frontloading on the Trans-Pacific route. The central role of Asia in global trade and shipping is also emphasized by trends in global container port-handling activity. In 2018, the Asia region continued to account for nearly two thirds of such activity. Volumes handled increased by 4.4 percent in Asia. With a total of 260.8 million TEUs recorded in 2018, China, including Hong Kong, China and Taiwan Province of China, accounted for over half of the regional total. The maintenance of the Government's ban of waste material imports is likely to increase the incidence of empties in the overall traffic handled by ports.

Other regions accounted for 16 percent (Europe), 8 percent (North America), 6 percent (Latin America and the Caribbean), 4 percent (Africa) and 2 percent (Oceania) of container port-handling activity. These shares reflect to a large extent countries' participation levels in global manufacturing networks and supply chains.

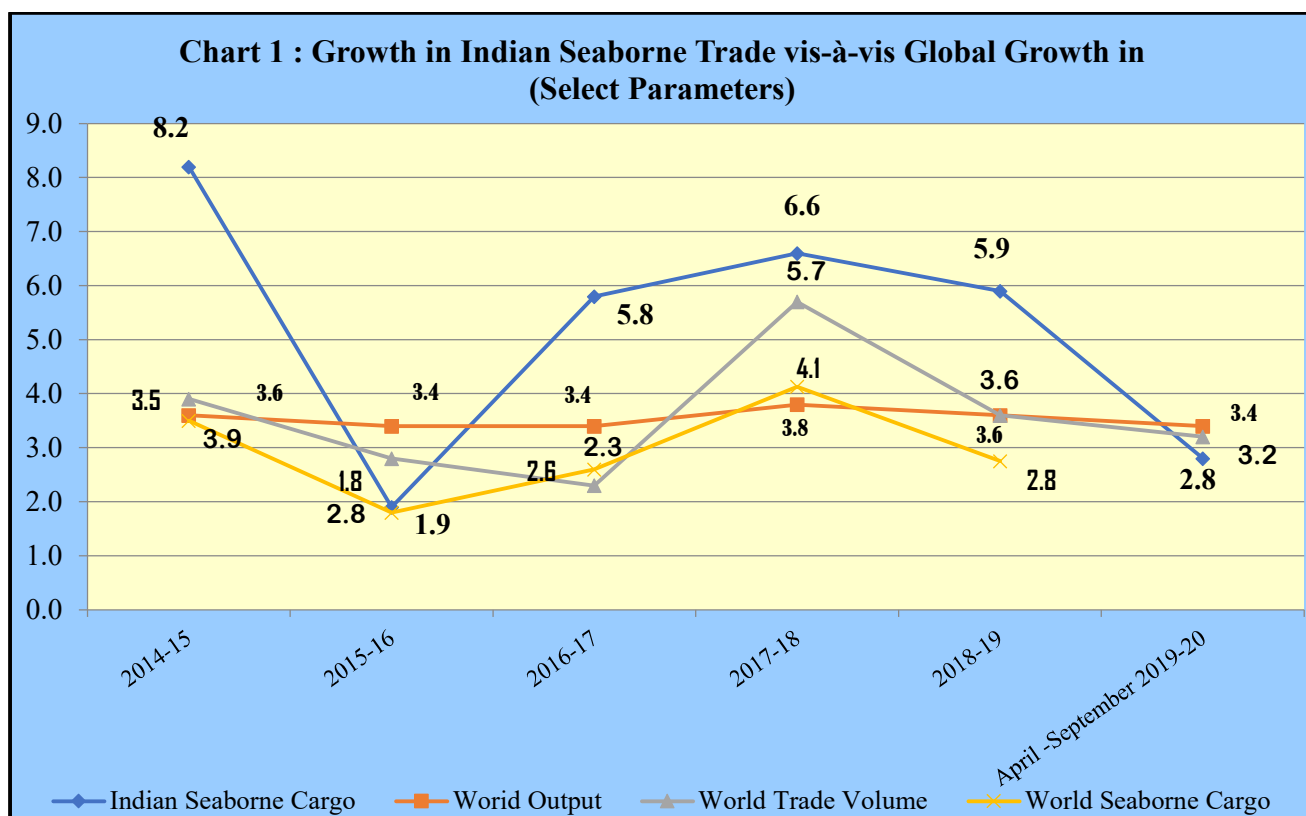
Seaborne Trade Development Forecast

1.1.23 According to UNCTAD projections, international maritime trade will increase by 2.6 percent in 2019 and will continue rising at a compound annual growth rate of 3.4 percent over the 2019–2024 period. These figures are based on the estimated income elasticity of maritime trade over the 2006–2018 period and the latest growth in GDP forecast by the International Monetary Fund for 2019–2024. Projected growth falls within the range of some existing forecasts and is consistent with historical trends whereby maritime trade increased at an annual average growth rate of 3.4 percent between 2006 and 2018. Containerized and dry bulk trades are expected to grow at a compound annual growth rate of 4.5 percent and 3.9 percent, respectively, over the 2019–2024 period. Tanker trade (combined crude oil, refined petroleum products, gas and chemicals) is projected to grow by 2.2 percent during the same period.

1.1.24 Uncertainty remains an overriding theme in the current maritime transport environment, and estimated growth is subject to the realization of forecasted GDP growth and its underlying assumptions. Growth will also be affected by trends in some market segments that had suffered some setbacks in early 2019. These include disruptions to iron ore trade caused by *Cyclone Veronica* in Australia and the severe disruption caused by the Vale dam incident in Brazil. Grain and containerized trades will remain at the forefront of current trade tensions. Crude oil shipments from the Atlantic basin to Asia are expected to support tanker volumes, while sanctions affecting the Islamic Republic of Iran and the Bolivarian Republic of Venezuela, as well as effective compliance with production cuts by the Organization of the Petroleum Exporting Countries, are likely to put pressure on tanker trade. Overall, the outlook for global maritime trade growth will be affected by the degree and speed at which some of these trends unfold.

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 2014-15 to first six months of 2019-20 is given in **Chart I**.



1.3 Cargo Traffic at Indian Ports

1.3.1 During first six months (April-September) of 2019-20, Major and Non-major Ports in India have accomplished a total cargo throughput of 641.99 million tonnes reflecting an increase of 2.8% over the corresponding period of the previous year 2018-19 (Table 3). The growth in cargo handled at Major and Non-major ports in first six months (April-September) of 2019-20, were 1.5% and 4.5% respectively. The share of Non-major Port in the total traffic handled at Indian Port increased from 45.0% in first six months (April-September), 2018-19 to 45.7% in the same six months of 2019-20. Trend in traffic handled at Major and Non-major Ports is given below in **Table 3**.

Table 3- Trends in Cargo Handled at Major & Non-Major Ports							(Million Tonnes)	
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September		
						2018-19	2019-20	
Major Ports	581.34	605.89	648.47	679.47	699.10	343.26	348.44	
	(4.7)	(4.2)	(7.0)	(4.8)	(2.9)	(5.1)	(1.5)	
Non-Major Ports	470.89	465.87	485.21	529.09	581.22	281.04	293.55	
	(12.9)	-(1.0)	(4.2)	(9.0)	(9.9)	(11.4)	(4.5)	
All Ports	1052.23	1071.76	1133.69	1208.56	1280.33	624.30	641.99	
	(8.2)	(1.9)	(5.8)	(6.6)	(5.9)	(7.8)	(2.8)	

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 first six months (April-September) of 2019-20 was 348.44 million tonnes achieving a growth of 1.5% over the previous year.

1.4.2 During first six months (April-September) of 2019-20, Visakhapatnam Port recorded highest growth in traffic 9.4% followed by V.O.Chidambanar (8.9%), Haldia Dockyard Complex (7.9%), Paradip Port (5.0%), Cochin Port (4.6%), Deendayal Port (4.1%), Mumbai Port (2.4%), and KDS (0.4%). Major ports which recorded **negative growth** in traffic during first six months (April-September) of 2019-20 were: Mormugao Port (17.3%), followed by New Mangalore Port (11.5%), Chennai Port (8.8%), Kamarajar Port (4.9%) and JNPT (1.2%).

Table 4 : Traffic Handled at Major Ports								
(Thousand Tonnes)								
Ports	2014-15	2015-16	2016-17	2017-18	2018-19	April-September		% change April-Sept 2019-20 w.r.t April-sept 2018-19
						2018-19	2019-20(P)	
1	2	3	4	5	6	7	8	9
Kolkata	46293	50289	50951	57891	63763	29969	31673	5.7
Kolkata DS	15283	16782	16810	17390	18551	8920	8957	0.4
Haldia DC	31010	33507	34141	40501	45212	21049	22716	7.9
Paradip	71011	76397	88958	102028	109275	52898	55552	5.0
Vizag	58004	57035	61020	63537	65301	31761	34750	9.4
Kamarajar	30251	32206	30020	30446	34497	16570	15761	-4.9
Chennai	52541	50058	50214	51881	53012	27137	24740	-8.8
Chidambaranar	32414	36849	38463	36583	34341	16778	18266	8.9
Cochin	21595	22095	25007	29143	32022	15906	16645	4.6
New Mangalore	36566	35582	39936	42059	42510	20179	17864	-11.5
Mormugao	14711	20776	33181	26897	17683	9229	7632	-17.3
Mumbai	61660	61119	63129	62902	60588	29392	30101	2.4
JNPT	63801	64027	62152	66004	70706	34814	34410	-1.2
Deendayal	92497	99458	105442	110099	115402	58630	61048	4.1
All Ports	581334	605891	648473	679470	699100	343263	348441	1.5
Source: Major Port, (P): Provisional								

1.4.3 Amongst the Major Ports, DeenDayal (Kandla) Port handled the maximum Cargo of 61.05 million tonnes with a share of 17.5% in total cargo handled at major ports followed by Paradip Port (15.9%), Vishakhapatnam Port (10.0%), JNPT (9.9%), Mumbai Port (8.6%), Chennai Port (7.1%), Haldia Dockyard Complex (6.5%), Chidambaranar Port (5.2%), NMPT (5.1%), Cochin Port (4.8%), Kamarajar Port (4.5%), Kolkata Dock System (2.6%) and Mormugao Port (2.2%) during first six months (April-September) of 2019-20 (Table 4).

Commodity-wise growth of cargo traffic at Major Ports

1.4.4 At a broad commodity level, during first six months (April-September) of 2019-20, Iron Ore posted highest growth rate of 26.9% followed by Coking Coal (16.4%), Fertilizer Finished (13.0%), Food Grain (9.1%), Other Cargo (6.3%) and Container (4.1%). The other commodities such as FRM (Dry), Thermal Coal, and POL, were affected during first six months of 2019-20 and dropped by 12.1%, 11.7% and 4.5% respectively. **Table 5** gives the details of Commodity wise traffic handled at Major Port during 2014-15 to 2019-20 (upto September, 2019-20).

Table 5 : Commodity wise Traffic Handled at Major Ports								
Commodities	2014-15	2015-16	2016-17	2017-18	2018-19	April-September		% change April Sept 2019-20 w.r.t to April-Sept 2018-19
						2018-19	2019-20(P)	
						7	8	
1	2	3	4	5	6	7	8	9
POL	181020	186360	200225	213261	220964	114608	109444	-4.5
Iron Ore	18002	15315	41765	41170	41343	19744	25057	26.9
Fertiliser	16291	16023	14057	15052	15227	7259	7366	1.5
1. Finished	7926	8493	7043	7523	8241	3919	4430	13.0
2. Raw (DRY)	8365	7530	7014	7529	6986	3340	2936	-12.1
Coal	119474	134056	126177	126725	136845	62891	60656	-3.6
1. Thermal Coal	87119	100252	90329	87145	94121	44661	39438	-11.7
2. Coking Coal	32355	33804	35848	39580	42724	18230	21218	16.4
Food Grain	3089	2373	6504	2396	795	456	498	9.1
Container (Tons.)	119441	123168	124663	133726	145445	72034	75002	4.1
Others	124017	128596	135082	147140	138481	66271	70418	6.3
Total	581334	605891	648473	679470	699100	343263	348441	1.5
* Includes POL crude and POL Products only @ includes iron ore fine and pellets only # includes Fertilizer finished and FRM-Dry only % excludes pulses P : Provisional Source Major Ports								

1.4.5 In terms of composition of cargo traffic handled during first six months (April-September) of 2019-20 at major ports, the largest commodity group (with share in percent in total cargo handled) was POL (31.4%), Container traffic (21.5%), Others cargo (20.2%), Coal (17.4%), Iron ore (7.2%) , Fertilizer & FRM (2.1%) and Food Grain (0.1%).

1.4.6 The Port-wise and Commodity-wise shares in total cargo traffic during first six months (April-September) of 2019-20 are depicted in the **Charts II and III** respectively.

Chart-II Port-wise share in Traffic Handled during First Six months (April-September), 2019-20.

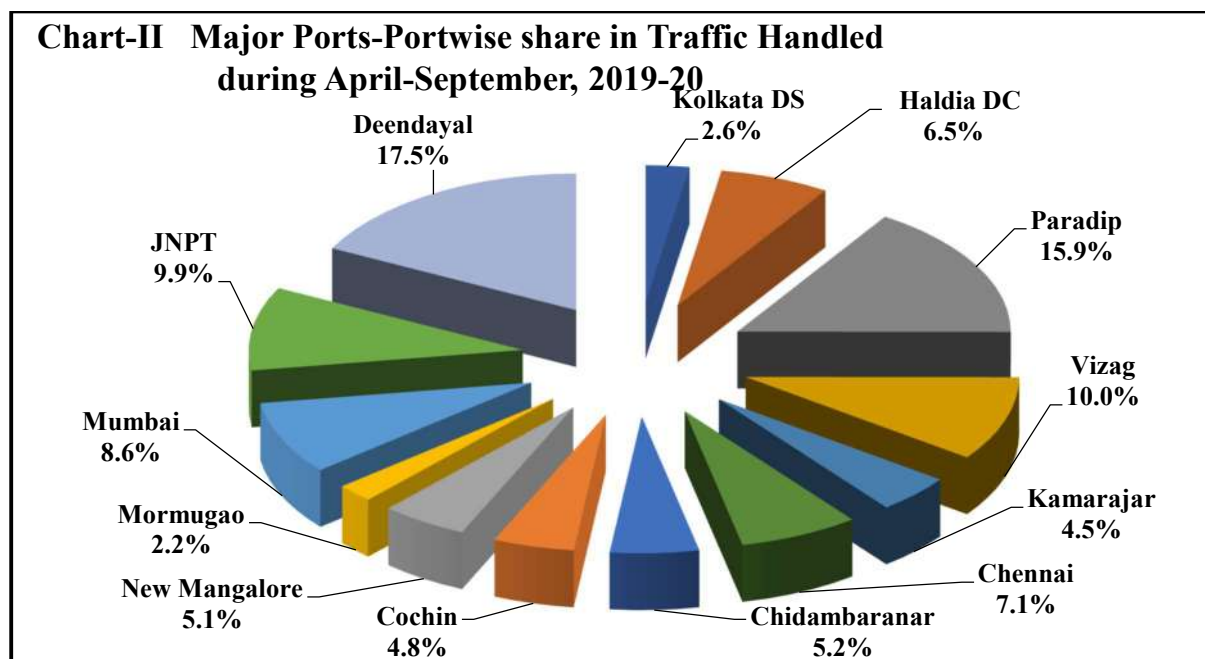
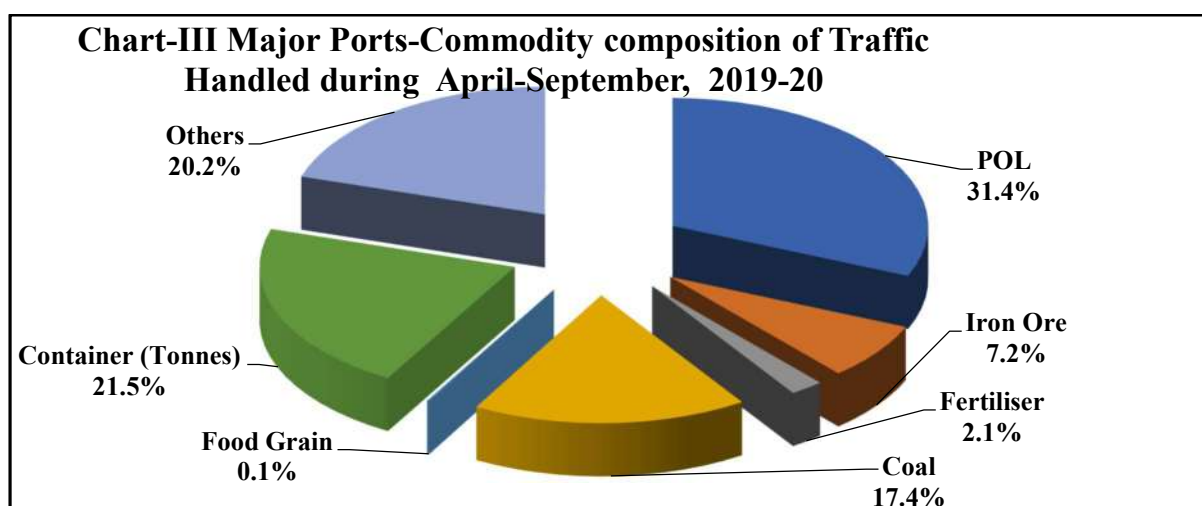


Chart-III Commodity composition of Traffic Handled during First Six months (April-September), 2019-20.



1.4.7 The Port-wise & commodity-wise traffic handled at major ports from 2017-18 to 2019-20 (upto September, 2019-20) is given at **Annex-I**.

Container Traffic

1.4.8 Growth in container traffic (in million tonnes), which reflects largely trade in manufactures and components, at 4.1% during first six months of 2019-20 as compared to 9.1% achieved in the corresponding period of the year 2018-19. In terms of Twenty Foot Equivalent Units (TEUs), containers handled by Major Ports during first six months of 2019-20 recorded 5.7% growth as compared to 7.7% in the same period of the 2018-19. Amongst the major ports, Chennai port (11.7%) has witnessed highest fall in container traffic (in terms of Tonnes) followed by Mumbai Port (8.3%), Mormugao Port (6.6%), KDS (1.6%) and JNPT (0.5%). JNPT continues to be the leading container handling port in the country with a share of 40.8% in terms of tonnage and 50.0% in terms of TEUs in the total container traffic at major ports during first six months (April-September) of 2019-20 (**Table 6**).

Table 6: Container Traffic at Major Ports

(in thousand tonnes/TEUs in thousand numbers)

PORT	2016-17		2017-18		2018-19(P)		April-September				% change-Apr. Sept 2019-20 w.r.t to Apr.-Sept 2018-19	
							2018-19		2019-20(P)			
	Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU
1	2	3	4	5	6	7	8	9	10	11	12	13
Kolkatta DS	9887	636	9760	640	9934	652	5092	338	5012	345	-1.6	2.2
Haldia DC	2467	136	2672	156	3140	178	1544	90	1621	90	5.0	0.0
Paradip	42	2	113	7	194	13	83	6	111	5	33.5	-16.7
Vizag	6428	367	6835	389	7958	450	3987	227	4488	261	12.6	15.0
Chennai	28850	1495	29905	1549	31263	1620	16093	834	14204	736	-11.7	-11.8
Kamarajar	1	0	52	3	1101	57	0	0	1352	70	-	-
Chidambanar	12991	642	14191	698	14955	739	7576	371	8521	425	12.5	14.6
Cochin	6840	491	7694	556	8116	594	3814	279	4311	312	13.0	12.0
New Mangalore	1411	95	1744	115	1920	132	1013	68	1119	78	10.5	14.3
Mormugao	402	30	425	32	467	37	227	18	212	16	-6.6	-8.6
JNPT	54530	4500	57866	4833	62114	5133	30718	2518	30574	2573	-0.5	2.2
Mumbai	639	43	630	42	329	27	175	14	160	17	-8.3	21.9
Kandla	175	5	1839	117	3954	243	1712	103	3316	214	93.7	107.8
All Ports	124663	8442	133726	9137	145445	9875	72034	4866	75002	5143	4.1	5.7

Note: CP - Corresponding period of previous year; (P)-Provisional; Tn - tonnes; TEU –twenty foot equivalent unit

Source: Major Ports

1.4.9 Chennai port which handled 18.9% of container cargo is the second largest container handling port followed by Chidambaranar Port (11.4%), Kolkata Dockyard System (6.7%), Visakhapatnam Port (6.0%), Cochin Port (5.7%) and Deendayal Port (4.4%).

1.5 Cargo Traffic at Non-Major Ports

1.5.1 Non-major ports handled 45.7% of total maritime freight traffic of the country during first six months (April-September) of 2019-20.

1.5.2 The following table (Table 7) presents maritime State-wise share and growth of traffic handled at Non-major Ports from 2014-15 and onwards.

Table 7 : Traffic Handled by Non-Major Ports by Maritime States/UTs									
(000'Tonnes)									
Maritime State/UT	2014-15*	2015-16	2016-17	2017-18	2018-19(P)	April-September		% Change over previous year	
						2018-19	2019-20(P)	2018-19	2019-20 (P)
Gujarat	336095	339778	345739	370769	399197	193053	200906	8.4	4.1
	(71.4)	(72.9)	(71.3)	(70.1)	(68.7)	(68.7)	(68.4)		
Maharashtra	27295	28849	34894	37906	44421	20118	19495	35.8	-3.1
	(5.8)	(6.2)	(7.2)	(7.2)	(7.6)	(7.2)	(6.6)		
Andhra Pradesh	83418	72733	69603	86285	103333	52813	50594	26.4	-4.2
	(17.7)	(15.6)	(14.3)	(16.3)	(17.8)	(18.8)	(17.2)		
Goa	760	430	117	72	15	4	2	-20.0	-50.0
	(0.2)	(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)		
Tamil Nadu	825	856	1152	1103	963	371	483	-27.7	30.2
	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.1)	(0.2)		
Karnataka	651	835	707	681	1044	361	499	24.5	38.2
	(0.1)	(0.2)	(0.1)	(0.1)	(0.2)	(0.1)	(0.2)		
A&N	1156	1323	1276	1418	1495	961	903	6.0	-6.0
	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)		
Odisha	15452	14949	22473	22595	22186	9652	15362	-23.1	59.2
	(3.3)	(3.2)	(4.6)	(4.3)	(3.8)	(3.4)	(5.2)		
Kerala	159	144	140	139	201	51	67	-7.3	31.4
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)		
Puducherry	4958	5974	9112	8121	8369	3654	5238	7.2	43.3
	(1.1)	(1.3)	(1.9)	(1.5)	(1.4)	(1.3)	(1.8)		
All M. States/UTs	470888	465871	485213	529089	581225	281038	293549	11.3	4.5
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)		
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;									
Note*Includes 119 ('000) tonnes cargo handled at Lakshadweep during 2014-15.									
Source: Non Major Ports/State Maritime Boards									
P- Provisional									

1.5.3 The growth in cargo handled by the non-major ports during first six months (April-September) of 2019-20 was 4.5% compared to 11.3% recorded in the corresponding period of previous year. Gujarat accounted for 68.4% of the traffic handled by the non-major

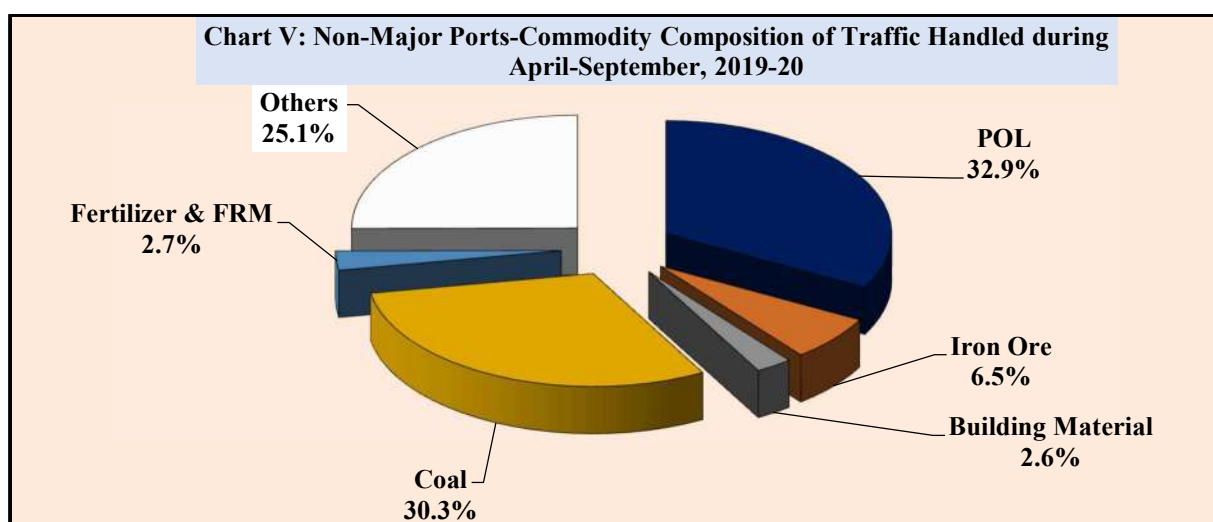
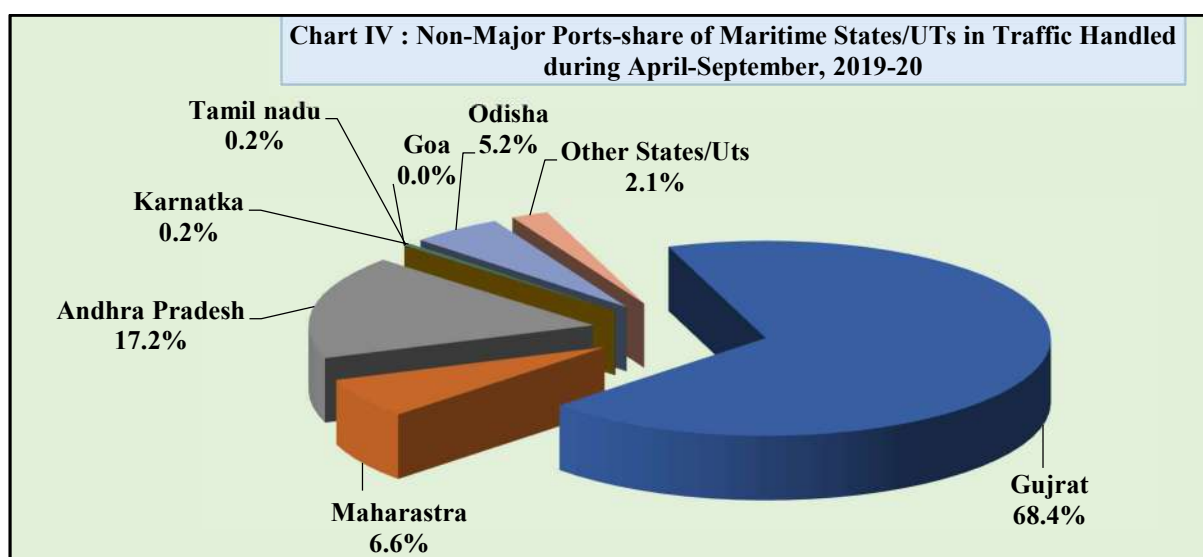
ports followed by Andhra Pradesh (17.2%) and Maharashtra (6.6%). Three maritime States, viz, Gujarat, Andhra Pradesh and Maharashtra together accounted for 92.2% of the total cargo traffic handled by the non-major ports in first six months (April-September) of 2019-20. Odisha State has highest growth of 59.2% in the first six months of 2019-20 compared to same period of the previous year followed by Puducherry (43.3%), Karnataka (38.2%), Kerala (31.4%), Tamil Nadu (30.2%), and Gujarat (4.1%). Non Major ports which recorded **negative growth** in traffic during first six months (April-September) of 2019-20 were Goa State (50.0%), Andaman and Nicobar (6.0%), Andhra Pradesh (4.2%) and Maharashtra State (3.1%).

1.5.4 Table 8 gives the details of commodity-wise traffic handled at Non-Major Ports during 2014-15 to April-September, 2019-20. The table shows the two commodities, viz. POL and Coal accounted for two-third of the total cargo handled at the non-major ports during April-September, 2019-20.

Table 8: Commodity-wise Traffic Handled by Non-Major Ports									
(000'Tonnes)									
Commodity	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September		% Change over previous year	
						2018-19	2019-20(P)	2018-19	21019-20 (P)
POL*	167278	180641	186070	193422	189570	98403	96542	5.5	-1.9
	(35.5)	(38.8)	(38.3)	(36.6)	(32.6)	(35.0)	(32.9)		
Iron Ore**	26794	17383	34454	36596	42867	22393	18996	39.1	-15.2
	(5.7)	(3.7)	(7.1)	(6.9)	(7.4)	(8.0)	(6.5)		
Building Material\$	14224	14173	15170	15588	15986	6701	7609	3.8	13.6
	(3.0)	(3.0)	(3.1)	(2.9)	(2.8)	(2.4)	(2.6)		
Coal@	156737	141874	133755	146684	169075	79647	88810	12.3	11.5
	(33.3)	(30.5)	(27.6)	(27.7)	(29.1)	(28.3)	(30.3)		
Fertilizer & FRM &	13952	16946	14237	11714	16087	7897	8039	11.9	1.8
	(3.0)	(3.6)	(2.9)	(2.2)	(2.8)	(2.8)	(2.7)		
Others	91903	94854	101527	125085	147640	65997	73553	12.7	11.4
	(19.5)	(20.4)	(20.9)	(23.6)	(25.4)	(23.5)	(25.1)		
All	470888	465871	485213	529089	581225	281037	293549	11.3	4.5
	(100)	(100)	(100)	(100)	(100)	(100)	(100)		
Note: Figure in parenthesis is the percentage share of major commodity groups in the total traffic handled by the Non major ports									
* includes POL crude, POL products, LPG/LNG, Naphtha and Fuel oil. @ includes Thermal Coal, Coking coal, other coal and Pet coal									
\$ includes Building Material and Cement/Clinker ** includes iron ore fines and Pellets									
& includes Fertilisers, FRM-Liquid, FRM Dry and Rock Phosphate									
Note*Includes 119 (000) tonnes cargo handled at Lakshadweep during 2014-15									
Source: Non Major Ports/State Maritime Boards									

1.5.5 The percentage share of Iron Ore, Fertilizer & FRM, building materials and other commodities are 6.5%, 2.7%, 2.6% and 25.1% respectively during first six months of 2019-20. Building Materials registered the highest growth of 13.6% in the first six months of 2019-20 compared to same period of the previous year followed by Coal (11.5%), Others commodities (11.4%) and Fertilizer & FRM (1.8%). Iron Ore and POL were affected during first six months of 2019-20 and dropped by 15.2% and 1.9% respectively.

1.5.6 The share of Maritime States/UTs in the total traffic and Commodity-wise composition of traffic during first six months (April-September) of 2019-20 is depicted in the pie Charts IV and V respectively.



1.5.7 Maritime State-wise & commodity-wise traffic handled at non-major ports from 2017-18 to 2019-20 (upto September, 2019-20) is given at **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 first six months of 2019-20, the Indian economy achieved a growth in to 4.6%, as compared to growth of 7.3% during the corresponding period of the 2018-19. This growth of Indian economy is decreased due to decrease in Agriculture, Industry and Service sector from 5.0% to 2.1%, 8.2% to 1.6% and 7.2% to 6.8% respectively during first six months of 2019-20 as compared to corresponding period of 2018-19.

1.6.1.2 Cargo traffic handled by India's 12 major ports (which accounts for 54.3% of India's total seaborne cargo) during April-September, 2019-20 was 348.44 million tonnes as compared to 343.26 million tonnes recorded during corresponding period of 2018-19 showing a growth of 1.5%. 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 major factor influencing seaborne container cargo GVA growth of 1.6% in first six months (April-September), 2019-20 as compared to 8.2% in corresponding period of 2018-19. GVA of Industry sector recorded growth rate of 2.7% and 0.5% in the first two quarters of 2019-20. However, the growth of Industry sector in the first two quarter of 2018-19 was 9.8% and 6.7% respectively.

1.6.1.3 Trends in POL, coal and fertilizers are largely driven by the dynamics of domestic demand supply and those of container traffic and "other cargo" in particular is largely shaped by the state of global demand and economic activity in India. Iron ore traffic has been impacted by the judicial intervention. The Iron ore traffic, in the first six months of 2019-20 recorded growth of 26.9% as compared to growth of 6.6% in the same period of 2018-19 (April-September). The growth of Container in the first six months of 2019-20 is reached to 4.1% as compared to 9.6% recorded in the corresponding period of 2018-19. In terms of TEUs; the growth of container traffic was recorded 7.8% in the first six months of 2018-19 and reduced to 5.4% in the first six months of 2019-20. The growth of other cargo in the first six months of 2019-20 has reached to 2.6% as compared to negative

growth of 9.4% in the corresponding period of 2018-19. The Coal registered negative growth of 7.1% in the first six months of 2019-20 as compared to 25.9% recorded in the corresponding period of 2018-19 respectively. The growth of Cargo handled by major ports in first two quarters of 2019-20 was 1.6% and 1.4% respectively as compared to growth of 4.1% and 6.7% achieved during corresponding period in 2018-19.

Table 9 below gives Quarter wise trend in growth of cargo traffic handled at Major ports, GVA overall and GVA of Industry sector during Q1 and Q2 and half yearly growth of 2017-18, 2018-19 and 2019-20.

Table -9 - Quarter-wise trend in growth of Cargo Traffic at Major Ports and GVA									
Commodities/ Year	2017-18			2018-19			2019-20 (First Half)		
	Q1	Q2	Growth in First Half	Q1	Q2	Growth in First Half	Q1	Q2	Growth in First Half
POL*	8.9	5.5	8.0	0.7	5.8	3.3	-0.1	-0.3	-0.2
Iron Ore #	33.4	11.6	23.5	2.3	13.0	6.6	15.7	42.1	26.9
Coal @	-9.8	-9.9	-10.4	25.1	26.9	25.9	-1.6	-13.5	-7.1
Fertilizer %	6.8	-10.4	-4.0	9.9	-14.4	-2.6	14.1	15.8	-0.6
Container									
In tonnes	5.6	7.6	6.6	9.8	9.5	9.6	5.0	3.2	4.1
In TEUs	6.5	7.3	6.8	6.6	9.0	7.8	7.0	3.9	5.4
Other cargo	8.8	-2.0	1.8	11.9	-6.8	-9.4	0.9	4.3	2.6
All Cargo	5.0	1.5	3.3	4.1	6.7	5.3	1.6	1.4	1.5
GVA overall	5.9	6.6	6.2	7.7	6.9	7.3	4.9	4.3	4.6
GVA - Industry	0.8	6.9	3.8	9.8	6.7	8.2	2.7	0.5	1.6
GVA: Gross Value Addition at factor cost at 2011-12 prices. * includes POL Product and POL crude @ includes Thermal coal and Coking Coal # includes iron ore fines and pellets % includes Fertilizer and FRM-dry Source: Port Data Management Portal (PDMP), Ministry of Shipping									

1.6.2 Recent Developments in Global Ocean Freight Rates

UNCTAD expects international maritime trade to expand at an average annual growth rate of 3.5 percent over the 2019–2024 period, driven in particular by growth in

containerized, dry bulk and gas cargoes. However, uncertainty remains an overriding theme in the current maritime transport environment, with risks tilted to the downside. The container shipping industry has been undergoing a challenging phase in recent years, driven by a persistent market imbalance between trade and fleet supply capacity that has been intensifying with the influx of mega vessels, rising trade tensions and increased protectionism, as well as changing environmental regulations. These factors have increased the volatility of freight rates and transport costs in 2018/2019, a feature that will continue through 2020.

1. Container freight rates

The year 2018 witnessed a mixed performance in container freight rates. Weak trade growth and the sustained delivery of mega container ships exerted further pressure on freight rates in the first half of the year. There was a temporary surge in late 2018, triggered by an increase in shipments from China to the United States, before the potential application of higher tariffs on Chinese imports. Overall, container fleet supply capacity rose by 6 percent in 2018, surpassing 2.6 percent growth in containerized seaborne trade.

In 2018, container freight rates showed mixed results. Weak trade growth and the sustained delivery of mega container ships in an overly supplied market exerted further pressure on fundamental market balance, resulting in lower freight rates in general. However, towards the second half of the year, a temporary surge in seaborne trade was triggered by an increase in shipments from China to the United States before the potential application of higher tariffs on Chinese imports and more effective capacity management from carriers. Container fleet supply capacity increased in 2018 by 6 percent, compared with 4 percent in 2017. Such capacity surpassed expansion in global seaborne container trade, which increased by 2.6 percent as of 1 January 2019, reaching an estimated total volume of 152 million TEUs.

At the beginning of 2019, 25 percent of capacity deployed on the Trans-Pacific route was accounted for by container ships of more than 12,000 TEUs of capacity, up from 19 percent at the start of 2018 and 7 percent at start of 2016.

In the latter half of the year, mixed trends in freight rates were observed across the trade lanes. Demand on Trans-Pacific routes grew to avoid anticipated United States tariffs on imports from China scheduled for January 2019, which were subsequently delayed.

The Far East–Europe routes witnessed decreasing average freight rates. The Shanghai–Northern Europe route averaged \$822 per TEU in 2018, down 6.2 percent compared with the 2017 average, and the average rates on the Shanghai–Mediterranean route declined by 2.4 percent reaching \$797 per TEU. This decline is partly attributable to weaker performance in European economies such as Germany and the United Kingdom, as well as the economic crisis in Turkey (and the continued oversupplied routes. These were driven mainly by the upsizing of vessels. Container ships of capacities greater than 15,000 TEUs accounted for 53 percent of total capacity deployed on these trade routes at the end of 2017, up from 44 percent at the end of 2017 and 33 percent at the end of 2016.

Charter rates and earnings improved on a full-year average basis in 2018 but deteriorated during the second half of the year. Despite strong regional trade volumes and limited capacity expansion in the small sizes of vessels, rates and earnings made progress in the first half of the year, dropping to just above operating expenses in the second half, as carriers consolidated into larger alliances and were able to use their bargaining power to keep rates under pressure. The 12-month charter rate increased to an average of 502 points in 2018, compared with 378 in 2017. It remains to be seen how freight rates will hold in 2019–2020. Intensified trade tensions, which had helped boost container ship freight rates at the end of 2018 and improved carriers’ profitability, could have a negative impact on the development of freight markets in 2019 and 2020. Demand for cargo may be affected at a time when the industry is confronted with new challenges and additional costs of complying with the new IMO 2020 regulation on sulphur fuel limits that will be applied on 1 January 2020 (Universal Cargo, 2019). Capacity management will therefore be key to reconciling slow growth in demand, high supply capacity and high operating costs. Non-mainlane routes are expected to remain the principal driver of growth in 2019 and 2020.

2. Tanker & Dry bulk freight rates

Tanker trade shipments (oil, gas and chemicals), accounted for 29.0 percent of total maritime trade volume, down from 55 percent nearly five decades earlier. This is consistent with the ongoing shift in the maritime trade structure that is largely rooted in the 1980s. The decade saw a decrease in tanker trade of 6.2 percent, reflecting the constrained petroleum consumption in main consumer countries that followed the oil shocks of the 1970s.

In 2018, major dry bulk commodities – iron ore, grain and coal – accounted for more than 40.0 percent of total dry cargo shipments, while containerized trade and minor bulks

accounted for 24.0 percent and 25.8 percent, respectively. Remaining volumes were made of other dry cargo, including break bulks.

1.6.3 Trends in Global Top 20 Container Ports

1.6.3.1 Oversupply remained a prominent characteristic of most shipping segments. In early 2019, total world fleet capacity stood at 1.97 billion dead-weight tons (dwt), equivalent to 2.61 percent growth – the slowest growth of the decade. Gas carriers experienced the highest growth (7.25 percent during the 12 months to January 2019), mainly due to significant expansion in the liquefied natural gas sector. This trend can be expected to continue in view of mounting environmental concerns and pressure on the maritime sector to switch to cleaner fuels.

1.6.3.2 The world container fleet also continued to increase (5 percent). In comparison, the chemical-tanker and dry-bulk-carrier segments registered stable growth, and the oil tanker segment underwent a downward trend. Bulk carriers recorded the highest level of ship deliveries, representing 26.7 percent of total gross tonnage built in 2018, followed by oil tankers (25 percent), container ships (23.5 percent) and gas carriers (13 percent).

1.6.3.3 As key players in international trade and logistics and critical nodes in global supply chains, seaports continue to underpin globalized production processes, market access and effective integration in the global economy. Since 2014, there has been a trend towards an increased number of container-ship and gas-carrier newbuildings, compared with the number of newbuildings of oil tankers and dry bulk carriers, which has decreased. This can be attributed to greater demand for container ships of large capacity (above 15,000 TEUs) and less demand for oil tankers and bulk carriers as a result of the existing oversupply in those segments.

1.6.3.4 Growth in container traffic at world's top major ports/container terminals is a barometer of trends in seaborne trade. The growth in container traffic (million TEUs) was 3.3% in 2018 as compared to 5.9% in 2017.

1.6.3.5 Container cargo handling remains concentrated in certain major ports. Combined throughput at the world's top 20 container terminals increased and reached to 347.8 million TEUs in 2018 as compared to 336.6 million TEUs in 2017, accounting for 43.8 percent of the world's total. Apart from the contraction in volumes suffered by Dubai, Hong Kong, China and Hamburg, growth at individual ports varied between a low of 0.4 percent in Port Klang

and a high of 8.7 percent in Singapore. Shanghai remained the busiest container port worldwide, with volumes expanding by 4.4 percent, adding more than 2 million TEUs to container port traffic in Shanghai in 2018. Only five ports outside Asia are featured among the 20 leading container ports, namely, Antwerp, Hamburg, Los Angeles, Long Beach and Rotterdam. **Table 10** provides recent trends in Top 20 World Container Ports (in million TEUs) during 2017 and 2018.

Table: 10 Top 20 World Container Ports					
(In Million TEUs)					
S. No.	Port	Country	2017	2018	Annual Percentage change
1	Shanghai	China	40.23	42.01	4.4
2	Singapore	Singapore	33.67	36.6	8.7
3	Ningbo-Zhoushan	China	24.61	26.35	6.9
4	Shenzhen	China	25.21	25.74	2.1
5	Guangzhou (Nansha)	China	20.37	21.92	7.6
6	Busan	Republic of Korea	21.4	21.66	5.5
7	Hong Kong	Hong Kong SAR	20.76	19.6	-5.6
8	Qingdao	China	18.26	19.32	5.5
9	Tianjin	China	15.21	16	6.2
10	Dubai	United Arab Emirates	15.44	14.95	-2.9
11	Rotterdam	Netherlands	13.6	14.51	5.7
12	Port Klang	Malaysia	12.06	12.03	0.4
13	Antwerp	Belgium	10.45	11.1	6.2
14	Xiamen	China	10.38	10.7	3.1
15	Kaohsiung	Taiwan Province of China	10.24	10.45	1.8
16	Dalian	China	9.71	9.77	0.6
17	Los Angeles	United States	9.34	9.46	1.3
18	Tanjung Pelepas	Malaysia	8.33	8.79	6.4
19	Hamburg	Germany	9.6	8.78	-0.2
20	Long Beach	U.S.A.		8.07	3.7
21	Laem Chabang	Thailand	7.76		
	Total of Top 20 Ports		336.63	347.81	
Source: UNCTAD Review of Maritime Transport 2019					

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 September, 2019 (First six months of 2019-20); the cargo handling capacity of Major Ports was 1524.91 Million Tonnes. Commodity-wise capacity of Major Ports at the end of March 2014 to September, 2019 is given in **Annexure- 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, improve 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. Bidding documents like Request for Qualification (RFQ), Request for Proposal (RFP) and Model Concession Agreement (MCA) have been standardized. Model Concession Agreement (MCA) gives the various parameters

for the implementation and maintenance of PPP projects. The PPP projects are concluded by the Major Ports as per provisions of MCA. The MCA has been amended in January, 2018 with a view to obviate the problems being faced in execution of PPP Projects on account of certain provisions of the earlier MCA of 2008 in order to enhance confidence of investors and make the investments in the Port Sector attractive. At present, a total of 34 PPP projects are operational and 14 more PPP projects are under implementation/construction.

Areas of private investment

1.7.7 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.
 - ❖ Cranage/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)

1.7.8 The Government of India had constituted National Transport Development Policy Committee (NTDPC) in 2010 under the Chairmanship of Dr. Rakesh Mohan to formulate a long term Transport Policy. The Committee has inter-alia made several recommendations for Port Sector with the intent to provide a long term direction to the future development and governance of Indian ports and to incentivise and integrate water based transport for it to play an increasing role in the national transport network. Key recommendations of the Committee are:

a) Strategic view on port investment

(i) Mega ports

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

(ii) Deep draft berth at Major Ports

1.7.10 With a view to enable Major Ports to handle larger vessels the Ministry had prepared an action plan for increasing the draft in Major Ports. Most of the Ports now already have a minimum draft of 14 meters and the other Ports are striving to achieve this level. Some of the ports like Paradip, Kamarajar, Mormugao and JNPT have plans in hand to increase their drafts well beyond existing drafts.

b) Strategic Institutional shift – Landlord model of port governance

1.7.11 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

1.7.12 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 give flexibility to Major Ports Trusts to react to the market forces and also to encourage better performance, the Government has issued three sets of Tariff Guideline, namely Guideline for Determination of Tariff for projects at Major Ports, 2013, Tariff Policy for Major Port Trusts, 2018 and Tariff Guideline, 2019 for determination of Tariff for BOT operators operating in Major Port Trusts and previously governed by 2005 Tariff Guideline. These guideline impact flexibility to PPP operators as well as Major Ports owned terminals in determining their tariffs.

d) Coastal Shipping

1.7.13 Availability of dedicated infrastructure will go a long way in promoting coastal shipping as a mode of freight transportation. Hence, infrastructure at ports and supporting infrastructure using rail/road and waterways to facilitate coastal movement are being created. These include development of dedicated coastal berths, bunkering and storage at ports and creation of supporting hinterland transport infrastructure with last mile connectivity.

To boost trade with up-gradation of port facilities to global standards and for making coastal shipping viable at many instances, Ministry of Shipping (MoS) is taking numerous steps towards promotion of coastal shipping through ease of doing business initiatives as below:

Licensing relaxation for coastal shipping trade (cabotage)

- Ministry of Shipping has notified licensing relaxation to foreign flag vessels for carrying trans-shipment containers, empty containers, fertilizers and agricultural, fisheries, animal husbandry and horticultural commodities on coastal routes

- The licensing Relaxation for coastal shipping to special vessels such as Ro-Ro, Hybrid Ro-Ro, Ro Pure Car Carriers, Pure Car and Truck Carriers, LNG Vessels and Over-dimensional or Project Cargo is extended till 2020

Coastal Berth Scheme

- Financial assistance up-to 50% of total project cost or maximum funding limit can be provided to the implementing agency for creation of infrastructure to promote movement of cargo/ passengers by sea/National Waterways
- The scheme is extended up-to March 2020 and its scope has been expanded to cover the cost of preparation of DPR and capital dredging at Major Ports.
- 39 projects (cost: Rs. 1,569 Crore) have been sanctioned under the Coastal Berth Scheme for total financial assistance of Rs. 636.76 Crore and Rs. 350.84 Crore has been released to Major Ports/State Maritime Boards/State Governments.

Other initiatives

- Minimum 40% discount is offered by major ports on vessel and cargo related charges to coastal vessels
- Priority berthing policy for coastal vessels has been notified to reduce turnaround time for coastal vessels and improve their utilization
- GST Reduced on Bunker Fuel from 18% to 5%

Going further in direction, MoS with the help of Asian Development Bank (ADB) carried out a study on Promotion of Coastal Shipping in India. The core objective of this study is to identify key issues impacting coastal shipping and developing solutions to address these issues in order to make coastal shipping a more prominent mode of transport in India's domestic logistics.

This study has adopted a consultative approach backed by a robust route-cause analysis of issues to identify the core challenges and find suitable solutions. Deep dive assessment of logistics chain across commodity categories—bulk (coal, cement, sugar), break-bulk (steel, automobiles), liquid (POL) containers (foodgrain, fertilizer, cotton) and origin-destination (O-D) pairs (covering east to west, east to east, west to west multimodal movements, coastal plus inland waterway movement)—to get a holistic view of the sector and to identify the on-ground issues.

Study reported significant growth in coastal shipping for various commodities and projects around 340 MTPA by 2025 including short sea shipping with neighbouring countries basis incorporating recommendations and necessary interventions suggested in report. Ministry of Shipping is taking necessary steps/actions on possible resolutions in coordination with respective ministries, state government, and authorities of major and minor ports.

e) Sagarmala Project

1.7.14 The concept of Sagarmala was approved by the Union Cabinet on 25th March 2015. As part of the programme, a National Perspective Plan (NPP) for the comprehensive development of India's coastline and maritime sector has been prepared which was released by the Hon'ble Prime Minister, on 14th April 2016 at the Maritime India Summit 2016. Vision of the Sagarmala Programme is to reduce logistics cost for EXIM and domestic trade with minimal infrastructure investment. Project list consists of various projects related to Port Modernisation, Port Connectivity, Port-led Industrialisation & Coastal Community Development.

Around 511 projects, at an estimated infrastructure investment of Rs. 526,184 Crore have been identified under Sagarmala. Out of which, 136 projects worth Rs. 87,167 Crore have been completed and 183 projects worth Rs. 303,519 Crore are under implementation.

f) 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

1.7.15 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 estimated 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.

g) Stevedoring Policy

1.7.16 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.

h) Benchmarking Study of Major Ports (Project UNNATI)

1.7.17 An international consultant (BCG) 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.

1.7.18 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 analysed.

1.7.19 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.

1.7.20 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. Out of the 116 initiatives, 95 initiatives have already been implemented.

i) Coastal Transportation of Vehicles by Ro-Ro Vessels

1.7.21 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), Odisha (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 2018-19, only 68 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 corporatized 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 seventeen meetings of MSDC have been held.

2.4 Maritime States – Non-Major Ports

2.4.1 Non-major ports in India collectively handled 293.55 million tonnes of traffic during first six months of 2019-20 as compared to 281.04 million tonnes of cargo handled in the same six months of 2018--19 recording growth of 4.5%.

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 (Kandla) is a major port. Out of 46 non-major ports, 18 non-major ports in the State are handling cargo. The remaining 28 non-major ports are used for fishing activities and have negligible traffic. A snap view of the location of ports in Gujarat is given in **Chart –VII**.

Chart – VII: Gujarat: Major and Minor Ports



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

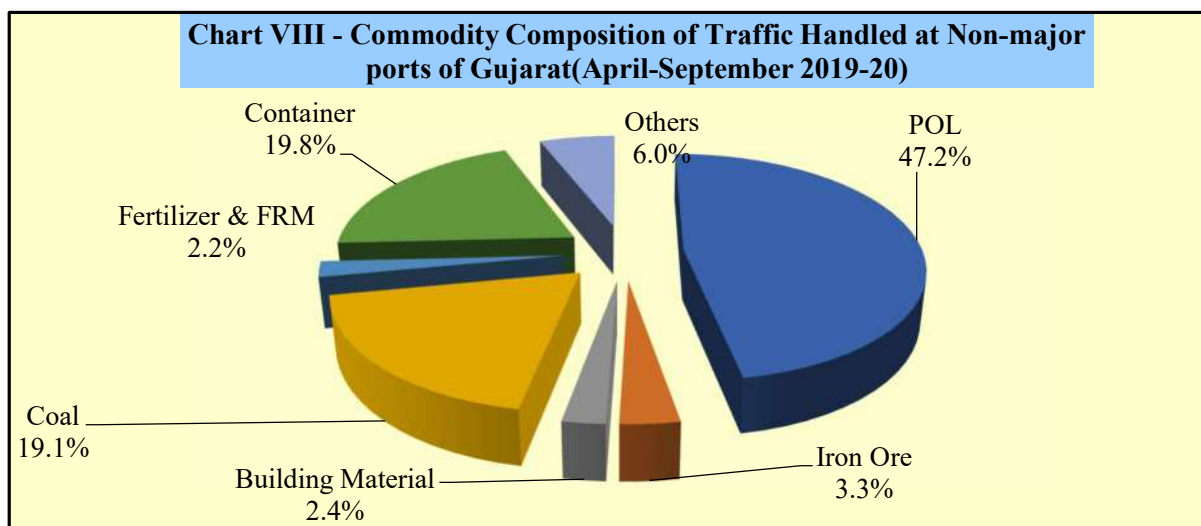
2.4.2.2 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in Table 11.

Table 11 - Gujarat: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Major Ports	92.50	99.46	105.44	110.10	115.40	58.63	61.05
	(6.3)	(7.5)	(6.0)	(4.4)	(4.8)	(10.0)	(4.1)
Non-Major Ports	336.10	339.78	345.74	370.77	399.20	193.05	200.91
	(8.4)	(1.1)	(1.8)	(1.8)	(7.2)	(8.4)	(4.1)
All Ports	428.59	439.24	451.18	480.87	514.60	251.68	261.95
	(8.0)	(2.5)	(2.7)	(2.7)	(7.0)	(8.8)	(4.1)
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 40.8% of the total cargo handled by Indian ports in the first six months (April-September) of 2019-20. The total cargo traffic handled at the major and non-major ports of Gujarat during first six months (April-September) of 2019-20 was of the order of 261.95 million tonnes as against 251.68 million tonnes in the same periods of 2018-19, reflecting an increase of 4.1%. In particular, non-major ports of Gujarat alone handled around

68.4% of total cargo traffic at India's non-major ports during first six months (April-September) of 2019-20.

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 first six months of 2019-20 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 12**. It indicates sustained increase in cargo throughput and capacity addition. During the year 2017-18, 19 million tonnes of capacity was added taking the total cargo handling capacity in the non- major port sector in Gujarat to 542 million tonnes in the year 2018-19. 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 2013-14 onwards the capacity of Non-major Ports increased every year. However, the capacity utilization of Non-major Ports in Gujarat decreased overtime. In 2013-14, the capacity utilization was 80.1% and it goes down to 79.6% in 2014-15 and further decreased to 69.0% in 2016-17. However, it increased to 70.9% in 2017-18 and 73.2 in 2018-19.

Table 12 - Gujarat: Non Major Ports - Capacity & Utilization						
	(Million Tonnes)					
Item	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
Capacity*	387 (5.7)	422 (9.0)	466 (10.4)	501 (7.5)	523 (4.4)	542 (3.6)
Cargo Handled	309.95	336.09	339.78	345.74	370.77	399.20
% Utilization	80.1	79.6	72.9	69.0	70.9	73.2
* 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 port 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 first six months of 2019-20 was 84.01 Million Tonnes compared to 84.32 Million Tonnes handled during same period of 2018-19 with the negative growth of 0.4%. However, the share of the cargo handled at the two Major Ports of Maharashtra State in the total cargo was 76.8 % while share of Non-major Ports was only 23.2%.

2.4.3.2 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 13**.

Table 13 - Maharashtra: Cargo Handled at Major & Non-Major Ports							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	(Million Tonnes)	
						April-September	
						2018-19	2019-20
Major Ports	125.46	125.15	125.28	128.91	131.29	64.21	64.51
	(3.2)	-(0.3)	(0.1)	(2.9)	(1.9)	(0.4)	(0.5)
Non-Major Ports	27.30	28.85	34.89	37.91	44.42	20.12	19.50
	(10.7)	(5.7)	(21.0)	(8.6)	(17.2)	(35.8)	-(3.1)
All Ports	152.76	154.00	160.18	166.81	175.72	84.32	84.01
	(4.5)	(0.8)	(4.0)	(4.1)	(5.3)	(7.1)	-(0.4)
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 99.97%.

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 14**.

Table 14: Goa : Trends in Cargo Handled at Major & Non-Major Ports							
(Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Major Ports	14.71	20.78	33.18	26.90	17.68	9.23	7.63
	(25.3)	(41.2)	(59.7)	-(18.9)	-(34.3)	-(27.1)	-(17.3)
Non-Major Ports	0.76	0.43	0.12	0.07	0.02	0.004	0.002
	(167.6)	-(43.4)	-(72.8)	-(38.5)	-(79.2)	-(20.0)	-(50.0)
All Ports	15.47	21.21	33.30	26.97	17.70	9.23	7.63
	(28.7)	(37.1)	(57.0)	-(19.0)	-(34.4)	-(27.1)	-(17.3)
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, 4 ports handle cargo in the state which is: Mangalore, Malpe, Hangarkatta and Karwar port. During 2018-19, non- major ports in the State handled 1.04 million tonnes of cargo traffic as compared to 0.68 million tonnes in 2017-18 reflecting a growth of 53.5%. However, during first six months (April-September) of 2019-20, non-major ports in the State handled 0.50 million tonnes of cargo traffic as compared to 0.36 million tonnes in same period of 2018-19 reflecting increase of 38.2%. The percentage share of Major port in the total cargo handled in the Karnataka state was 97.3%.

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 15**.

Table 15 - Karnataka: Trends in Cargo Handled at Major & Non-Major Ports							
(Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Major Ports	36.57	35.58	39.94	42.06	42.51	20.18	17.86
	-(7.1)	-(2.7)	(12.2)	(5.3)	(1.1)	(3.2)	-(11.5)
Non-Major Ports	0.65	0.84	0.71	0.68	1.04	0.36	0.50
	(27.9)	(28.3)	-(15.2)	-(3.9)	(53.5)	(24.5)	(38.2)
All Ports	37.22	36.42	40.64	42.74	43.55	20.54	18.36
	-(6.7)	-(2.1)	(11.6)	(5.2)	(1.9)	(3.5)	-(10.6)
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 non-major ports. The Vallarpadam Container Terminal Project in Cochin has been promoted on BOT basis through public private participation. In Kerala, the four non-major ports handling cargo are: Kovalam /Vizhinjam, Kollam / Neendakara, Beypore and Azhikkal. The total cargo handled during first six months of 2019-20 in the Kerala State was 16.71 Million Tonnes as compared to 15.96 million tonnes handled during same period of 2018-19 with a growth of 4.7%.

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 16**.

Table 16 - Kerala : Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Major Ports	21.60	22.10	25.01	29.14	32.02	15.91	16.65
	(3.4)	(2.3)	(13.2)	(16.5)	(9.9)	(11.5)	(4.6)
Non-Major Ports	0.16	0.14	0.14	0.14	0.20	0.05	0.07
	(76.7)	-(9.4)	-(2.8)	-(1.4)	(45.7)	-(7.3)	(31.4)
All Ports	21.75	22.24	25.15	29.28	32.22	15.96	16.71
	(3.7)	(2.2)	(13.1)	(16.4)	(10.0)	(11.4)	(4.7)
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 are Cuddalore, Nagapattinam, Ennore, Kattupalli and Thirukkadaiyur. 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 first six months (April-September), 2019-20, the non-major ports in Tamil Nadu collectively handled 0.48 million tonnes of cargo traffic as compared to 0.37

million tonnes in the same period of 2018-19 showing growth of 30.2%. However, the total cargo in Tamil Nadu state has been decreased from 60.86 million tonnes in April-September, 2018-19 to 59.25 million tonnes during same period of 2019-20. The trend in the cargo handled at both major and non-major ports of the State during the last few years and current year is given in **Table 17**.

Table 17 - Tamil Nadu: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Major Ports	115.21	119.11	118.70	118.91	121.85	60.49	58.77
	(7.6)	(3.4)	-(0.3)	(0.2)	(2.5)	(5.4)	-(2.8)
Non-Major Ports	0.83	0.86	1.15	1.10	0.96	0.37	0.48
	-(4.7)	(3.8)	(34.6)	-(4.3)	-(12.7)	-(27.7)	(30.2)
All Ports	116.03	119.97	119.85	120.01	122.81	60.86	59.25
	(7.5)	(3.4)	-(0.1)	(0.1)	(2.3)	(5.1)	-(2.6)
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 ports located at Bhavanapadu, Meghavaram, Bheemunipatnam, Gangavaram, Kakinada SEZ, Kakinada Deep Water, Rawa, Narsapur, Machilipatnam, Nizamapatnam, VodarevuMutyalammappalem and Krishnapatnam. Out of 12 non-major Ports; 5 Ports having cargo handled in the States are: Kakinada Deep Water, Krishnapatnam, Gangavaram, Rawa and Kakinada Anchorage Port. 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 85.3 million tonnes of cargo during first six months (April-September) of 2019-20 as compared with 84.6 million tonnes in the same six months of 2018-19 thus registering increase of 0.9% in traffic handled by major and non-major ports of Andhra Pradesh. Non-major ports in Andhra Pradesh posted negative growth of 4.2% in the first six months (April-September) of 2019-20 as compared to the same period of the year 2018-19.

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- 18**.

Table 18 - Andhra Pradesh: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Major Ports	58.00	57.04	61.02	63.54	65.30	31.76	34.75
	-(0.9)	-(1.7)	(7.0)	(4.1)	(2.8)	(5.3)	(9.4)
Non-Major Ports	83.42	72.73	69.60	86.29	103.33	52.81	50.59
	(42.1)	-(12.8)	-(4.3)	(24.0)	(19.8)	(26.4)	-(4.2)
All Ports	141.4	129.8	130.6	149.8	168.6	84.6	85.3
	(20.7)	-(8.2)	(0.7)	(14.7)	(12.6)	(17.6)	(0.9)
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 Orissa identified 14 potential sites for development of Minor Ports. To facilitate developers for development of Minor Ports, Government of Orissa framed the Port Policy during the year 2004.

2.4.9.2 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. Out of 13 non-major Ports; only two ports handled cargo traffic in Odisha which are Gopalpur and Dhamra Port.

2.4.9.3 Non-major ports in Odisha collectively handled 15.36 million tonnes of cargo during first six months (April-September) of 2019-20 compared to 9.65 million tonnes in the corresponding period of 18-19 registering an increase of 59.2% in traffic. However, the total cargo handled during first six months of 2019-20 was 70.91 million tonnes compared to 62.55 million tonnes in the corresponding period of 2018-19 registering an increase of 13.4% in traffic. The cargo handled at Major port has registered increase in growth by 5.0% during first six months of 2019-20 as compared to same period of 2018-19.

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 19**.

Table 19 - Odisha : Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Major Ports	71.01	76.40	88.96	102.03	109.28	52.90	55.55
	(4.4)	(7.6)	(16.4)	(14.7)	(7.1)	(11.1)	(5.0)
Non-Major Ports	15.45	14.95	22.47	22.60	22.19	9.65	15.36
	(7.5)	-(3.3)	(50.3)	(0.5)	-(1.8)	-(23.1)	(59.2)
All Ports	86.46	91.35	111.43	124.62	131.46	62.55	70.91
	(5.0)	(5.6)	(22.0)	(11.8)	(5.5)	(4.0)	(13.4)
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 trends in the cargo handled at major ports of the State during the last few years and current financial year are given in **Table 20**.

Table 20 - West Bengal :Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Major Ports	46.29	50.29	50.95	57.89	63.76	29.97	31.67
	(11.8)	(8.6)	(1.3)	(13.6)	(10.1)	(8.1)	(5.7)
All Ports	46.29	50.29	50.95	57.89	63.76	29.97	31.67
	(11.8)	(8.6)	(1.3)	(13.6)	(10.1)	(8.1)	(5.7)
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 three non-major ports of Daman & Diu and Lakshadweep are not handling any cargo traffic for the last few years.

2.4.11.2 The trends in the cargo handled at non-major ports of the Andaman & Nicobar Islands during the last few years and current year are given in **Table 21**.

Table 21 - Union Territory: Trends in Cargo Handled at A & N Islands Port (Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20
Andaman & Nicobar Islands	1.16	1.32	1.28	1.42	1.50	0.96	0.90
	(0.5)	(14.4)	-(3.6)	(11.1)	(5.4)	(6.0)	-(6.0)
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 non-major ports of the State during the last few years and current year are given in **Table 22**.

Table 22 - Union Territories: Trends in Cargo Handled at Non-Major Ports (Million Tonnes)							
Major/Non-Major	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	April-September	
						2018-19	2019-20
Lakshadweep	0.12	-	-	-	-	-	-
Puducherry	4.96	5.97	9.11	8.12	8.37	3.65	5.24
	-(21.1)	(20.5)	(52.5)	-(10.9)	(3.1)	(7.2)	(43.3)
Figures in bracket represent percentage change over the previous year/period. P-Provisional							

3. PERFORMANCE INDICATORS

3.1 Capacity Utilization for Major and Non-Major Ports

3.1.1 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 would be increased to a level of 1524.91 million tonnes at the completion of six months of 2019-20 (Provisionally). The provisional port-wise capacity during 2019-20 (upto September, 2019) and traffic handled during April-September 2019-20 are brought out in **Table 23**.

Table 23-Major Port-wise Capacity Utilisation during 2019-20 (Upto September, 2019) (MillionTonnes)				
S. No.	Name of Ports	Capacity	Traffic**	Capacity Utilisation (%)
1	Kolkata Ports of Trust*	82.57	31.67	38.4
2	Paradip Port Trust	239.00	55.55	23.2
3	Visakhapatnam Port Trust	134.18	34.75	25.9
4	Kamarajar Ports Limited	91.00	15.76	17.3
5	Chennai Port Trust	135.00	24.74	18.3
6	V.O.Chidambaranar Port Trust	111.46	18.27	16.4
7	Cochin Port Trust	78.60	16.65	21.2
8	New Mangalore Port Trust	104.73	17.86	17.1
9	Mormugao Port Trust	63.40	7.63	12.0
10	Mumbai Port Trust	79.00	30.10	38.1
11	Jawaharlal Nehru Port Trust	138.87	34.41	24.8
12	Deendayal Port Trust	267.10	61.05	22.9
	Total	1524.91	348.44	22.8
Note: *Haldia Dock Complex included **Provisional Source: Port Division, M/o Shipping.				

3.1.2 The above table 23 shows that only 22.8% capacity has been utilized at Major Ports during first six months of 2019-20 (P). The highest capacity utilization i.e. 38.4% is achieved at Kolkata Port of Trust (including Haldia Dock Complex) followed by Mumbai Port Trust (38.1%), Visakhapatnam Port Trust (25.9%), JNPT (24.8%) and Paradip Port Trust (23.2%) and Deendayal Port Trust (22.9%) during first six months of 2019-20. The

least capacity utilization was at Mormugao Port which was 12% only during first six months of 2019-20.

3.1.3 The **table 24** below shows that around 32.2% capacity has been utilized at Non-major Ports during first six months of 2019-20. The highest capacity utilization i.e. 37.1% is achieved at Gujarat Maritime Board (GMB), Gujarat State followed by Directorate of Ports, Odisha (32.3%), Puducherry (31.0%), Port Management Board, A&N Islands (30.1%), Directorate of Ports, Andhra Pradesh (28.4%), Tamil Nadu Maritime Board (TNMB) (22.5%) and Maharashtra Maritime Board (MMB) (19.0%). The least capacity utilization was at Directorate of Ports, Karnataka (2.8%) followed by Directorate of Ports, Goa (10.0%) during first six months of 2019-20. Capacity of Non-Major Ports at the end of March 2014 to March, 2019 is given in **Annexure-IV**

Table 24-Non-Major Port-wise Capacity Utilization during 2019-20				
(Million Tonnes)				
S. No.	Name of Ports	Capacity@	Traffic*	Capacity Utilization (%)
1	Gujarat	542.00	200.91	37.1
2	Maharashtra	102.40	19.50	19.0
3	Tamil Nadu	2.15	0.48	22.5
4	Goa	0.02	0.002	10.0
5	Kerala	0.55	0.07	12.2
6	Karnataka	17.80	0.50	2.8
7	Andhra Pradesh	178.00	50.59	28.4
8	Odisha	47.50	15.36	32.3
9	Puducherry	16.90	5.24	31.0
10	Andaman & Nicobar Islands	3.00	0.90	30.1
	Total	910.32	293.55	32.2
@ Capacity of Non-Major Ports for the year 2019-20 is not available. Hence last year 2018-19 data has been repeated. Source: State Maritime Board/ Directorate of Ports *Upto September, 2019-20 (Provisional)				

3.2 Cargo Traffic Targets during 2019-20 & achievement upto September, 2019-20 for Major ports.

3.2.1 Achievement upto September, 2019-20 against the projected targets of 2019-20 that total cargo handled at Major Ports during first six months of 2019-20 was 348.44

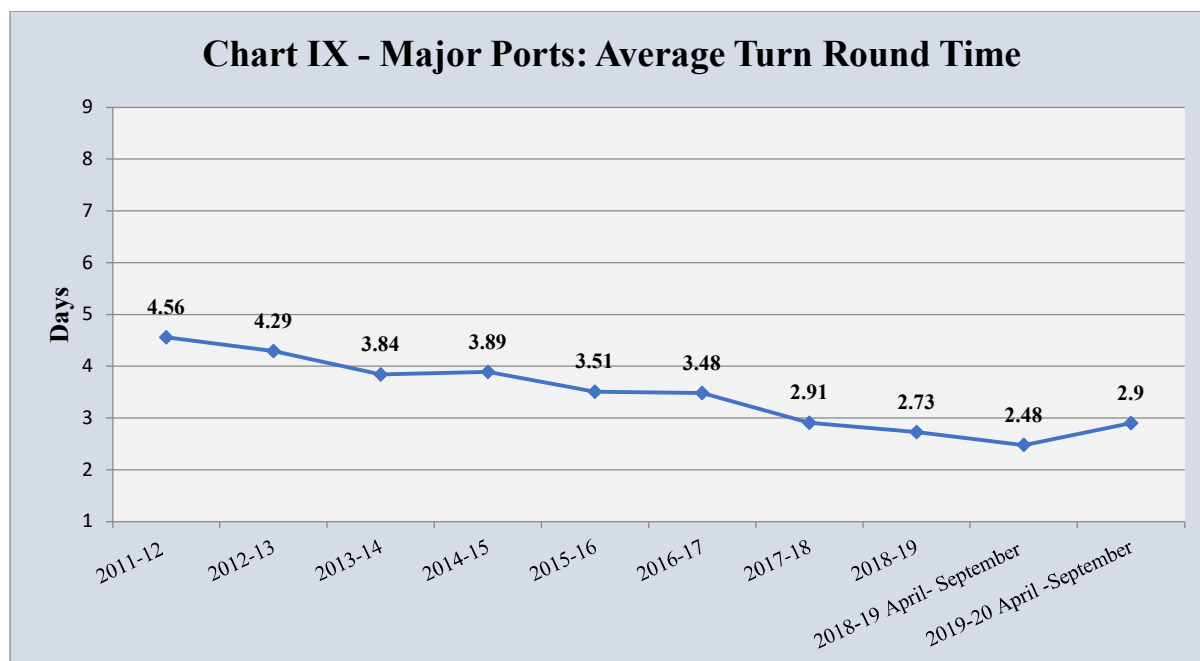
million tonnes against the target of 725 million tonnes, achieving 48.1% of the target in the first six months of 2019-20.

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 3.89 days in 2014-15. The average TRT improved in 2017-18 to 2.91 days and further improved to 2.73 days during 2018-19. However, average TRT has reached to 2.90 days in the first six months of 2019-20. The average TRT varied in the range between 1.75 days at V. O. Chindambaranar Port to 4.81 days at Deendayal Port during first six months of 2019-20. Port-wise average TRT for select years are given in **Table 25**. Average Turn Round Time at Major Ports for select years since 2011-12 to 2019-20 (upto September, 2019) is presented the **Chart IX** below.



Source: Major Ports

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

Table 25: Average Turn Round Time (days)

Port	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April- September	
						2018-19	2019-20(P)
1	2	3	4	5	6	7	8
Kolkata D.S	4.97	4.78	4.43	3.77	3.35	3.75	4.04
Haldia D.C	3.36	3.27	5.47	3.75	3.03	2.84	3.82
Paradip	7.01	4.50	4.99	3.31	2.51	2.68	3.01
Vishakhapatnam	5.67	3.84	3.75	2.58	2.51	2.60	2.51
Kamarajar (Ennore)	4.32	6.87	2.68	2.19	1.96	1.94	1.94
Chennai	2.54	2.53	2.51	2.21	1.98	1.94	1.99
Chidambaranar (Tuticorin)	3.37	3.53	4.00	2.40	1.76	1.97	1.75
Cochin	1.69	2.18	1.99	1.87	1.94	1.50	1.89
New Mangalore	2.46	2.63	2.35	2.04	1.93	2.03	1.99
Mormugao	3.97	3.37	3.43	3.15	3.48	2.94	4.09
J.L.Nehru	2.24	2.31	1.96	2.23	2.13	2.13	2.29
Mumbai	4.09	3.29	2.48	2.76	2.69	2.51	2.05
Deendayal	4.90	4.28	4.51	4.25	4.68	2.96	4.81
All Ports	3.89	3.51	3.48	2.91	2.73	2.48	2.90
Source: Indian Port Association, Major Ports, P: Provisional,							

Average Pre Berthing Detention Time (PBDT)

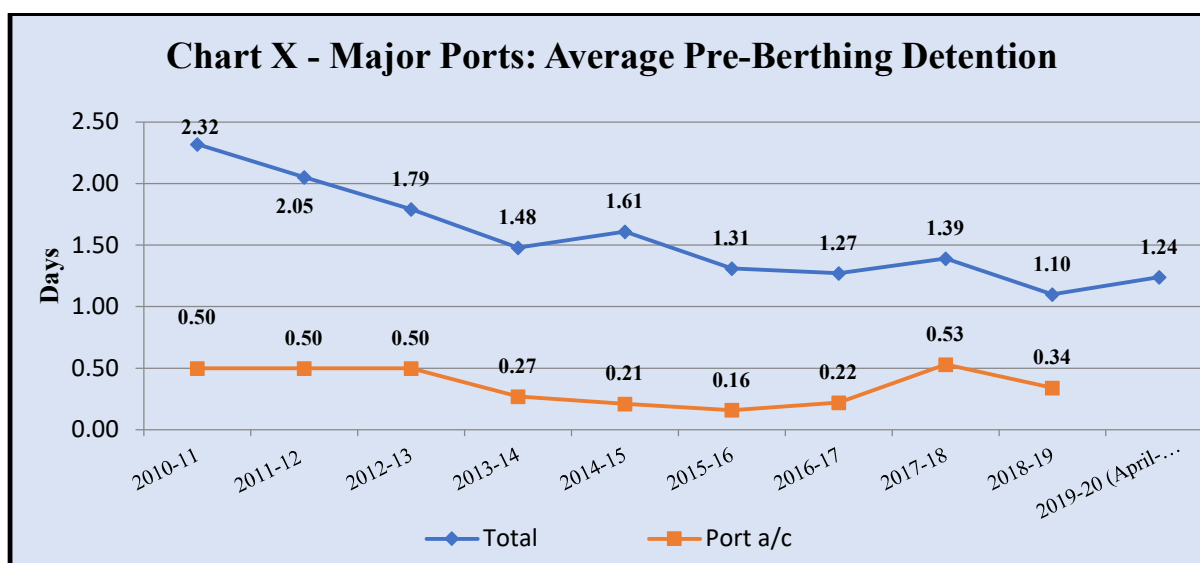
3.3.3 The average overall pre berthing detention time for all major ports declined from 2.16 days in 1990-91 to 2.05 days in 2011-12. However, in 2017-18 and 2018-19 average PBDT edged up to 1.39 days and 1.10 days respectively. Average PBDT recorded 1.24 days during first six months of 2019-20. Port-wise PBDT for select years is indicated in **Table 26**.

Table 26 : Average Pre-Berthing Detention(Days)

Port	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September*	
						2018-19	2019-20 (P)
1	2	3	4	5	6	7	8
Kolkata D.S	0.71	0.50	0.57	0.62	0.46	0.00	0.83
Haldia D.C	1.43	0.66	2.49	3.15	2.72	0.58	3.60
Paradip	4.11	2.05	2.47	0.87	0.30	0.34	0.70
Vishakhapatnam	2.59	1.47	1.22	2.37	1.29	0.05	1.27
Kamarajar	2.51	4.73	0.96	0.57	0.27	0.00	0.20
Chennai	0.41	0.44	0.38	0.86	0.15	0.03	0.07
Chidambaranar	1.07	1.33	1.80	1.13	0.68	0.10	0.70
Cochin	0.81	0.66	0.48	0.43	0.53	0.00	0.45
New Mangalore	0.60	0.76	0.00	1.16	1.10	0.41	1.46
Mormugao	1.61	1.38	1.67	1.31	1.24	0.25	1.65
J.L.Nehru	0.80	1.17	0.77	0.92	0.82	0.28	0.93
Mumbai	1.69	1.27	0.46	0.96	1.07	0.00	0.18
Deendayal*	2.52	1.98	2.02	1.90	2.02	0.36	2.20
All Ports	1.61	1.31	1.27	1.39	1.10	0.22	1.24

Source: Indian Port Association, Major Ports, P: Provisional,

3.3.4 In contrast, average PBDT on port account has seen a sharper decline from 2.10 days in 1990-91 to 0.45 days in 2011-12. Average PBDT on port account were at 0.50 and 0.27 days in 2012-13 and 2013-14 respectively. In 2016-17 the Average PBDT on port account declined to 0.22 days. However, it increased to 0.53 days in 2017-18 and again improved to 0.34 days in 2018-19. The trajectory of weighted average of pre-berthing detention time at Major Ports – total and on Port account since 2010-11 to 2018-19 is shown in the **Chart X** below.



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

Average Output Per Ship Berth-day

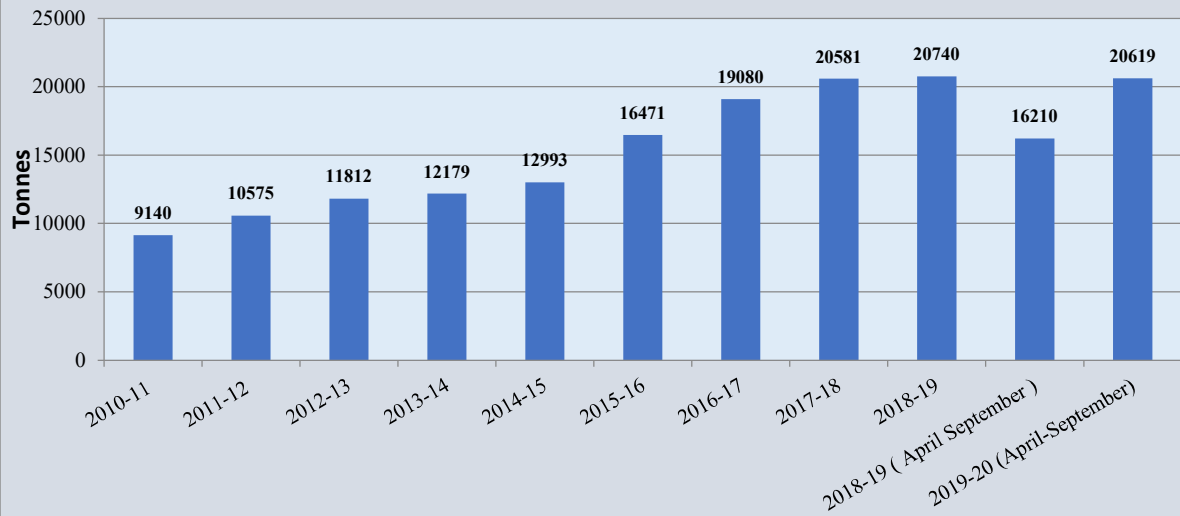
3.3.5 During the last 25 years this indicator has seen a tremendous improvement. Average Output per Ship-berth day has increased more than four times from 3,372 tonnes in 1990-91 to 20740 tonnes in 2018-19 for major ports but slightly declined to 20619 tonnes in first six months of 2019-20 (upto September, 2019). However, average output per ship berth-day during April-September, 2019-20 is marked by substantial variation across major ports ranging from a high 33202 tonnes in case of Paradip Port to a low of 7115 tonnes at Kolkata Dock System. This variation reflects the type of cargo being handled, level of mechanization and labour practices. Port-wise average output per Ship-berth-day for select years and latest period are given in **Table 27**.

Table 27: Average Output per Ship Berth day(Tonnes)

Port	2014-15	2015-16	2016-17	2017-18	2018-19(P)	April-September	
						2018-19	2019-20(P)
1	2	3	4	5	6	7	8
Kolkata D.S	3084	3201	6080	6962	7765	4384	7115
Haldia D.C	6802	9126	12537	13832	15083	9541	14768
Paradip	17736	26965	30245	33440	31740	24597	33202
Visakhapatnam	10640	17179	16823	17592	18281	12871	19784
Kamarajar	22613	31106	26235	28456	27918	23181	28633
Chennai	14464	18976	19220	19113	21003	18231	20475
Chidambaranar	10468	13619	13612	15557	15557	14997	19957
Cochin	16906	20962	23539	28143	30150	23973	33237
New Mangalore	19856	16165	17094	16378	19640	17091	17959
Mormugao	12272	21542	30414	24948	18685	11652	17829
J.L.Nehru	21310	23792	23897	22526	25847	25253	25086
Mumbai	11055	18020	20915	22996	25941	9905	24430
Deendayal	15159	16538	18235	22903	21281	18130	16053
All Ports	12993	16471	19080	20581	20740	16210	20619
Source: Indian Port Association, Major Ports, P: Provisional,							

3.3.6 The average output per ship-berth-day for the selected years since 2010-11 to 2019-20 (Upto April-September, 2019) is presented in the chart XI below.

Chart XI - Major Ports: Average Output per Ship-Berth Day



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 30.09.2019 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. Ongoing Private Sector/Captive/ Joint Venture Port Projects at Major Ports
- II. Under Formulation Private Sector/Captive/ Joint Venture Port Projects at Major Ports
- III. Ongoing Private Sector/Captive/ Joint Venture Port Projects at Non-Major Ports
- IV. Under Formulation Private Sector/Captive/ Joint Venture Port Projects at Non- Major Ports

Appendix – I

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

Sl. No.	Project Name	Port Name	Capacity (Million Tonnes)	Project Cost (Rs. Crores)	Project Status
1	2	3	4	5	6
1.	Modification of existing Iron Ore Terminal to also Handled Coal.	Kamarajar Port Ltd	12.00MT	22.9	Physical Progress-61%. Scheduled completion: 31.01.2020.
2.	Mechanization of Berth No. 16(Old No.18) providing handling equipments for handling bulk cargo on DBFOT basis at NMPT	New Mangalore Port Trust	6.73 MTPA	469.46	Completed
3.	Mechanization of Berth No.14 for handling containers and other clean cargo on PPP mode at NMPT	New Mangalore Port Trust	6.01 MTPA (in 2 phases)	280.71	RFP opened on 31.05.2019. Letter of award issued on 26.08.2019 to M/s. JSW Infrastructure Ltd. Mumbai the highest bidders at their quoted price of Rs. 951/- per TEU of container.
4.	Development of Barge handling facility at Bharathi Dock under PPP model	Chennai	1.35 MTPA	27.29	Project awarded to CBTPPL on 30.01.2013, but due to non-fulfillment of conditions precedent, termination order issued in Feb-2016. Consequently, the PPP operator initiated arbitration proceedings. The Arbitral award was issued by the tribunal on 30.03.2018. The Claimant has filed appeal against the arbitral award and hearing is going on. Work was awarded as in-house project on 31.03.2018 and the work is in progress.
5.	Extension of existing Container terminal in outer harbor.	Visakhapatnam	0.54 MTEUs	633.11	Concessionaire was awarded on 02.03.2019.
6.	New Iron Ore Berth on BOT basis. (PPP Operator : JSW)	Paradip Port	10 MT	740.19	Awarded, provisional completion by September,2019
7.	Mechanization of EQ- 1.2 & 3(3Berths) for handling export Coal Cargo (PPP Operator: JSW)	Paradip Port	30 MT	1437.76	Awarded, Stipulated completion by December 2020.
8.	Development of New Coal Berth for handling Import Coal Cargo. (PPP Operator Kakinada Port JV)	Paradip Port	10 MT	655.56	Awarded, Stipulated completion by April 2021.
9.	Development of fourth	JNPT	60	7915.00	On December, 2014, JNPT awarded the

	container terminal				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 tonnes with Quay length of 2 kms. The project is taken up in 2 phases. The construction of Phase-I is completed and operation was commenced from 22.12.2017. The scheduled completed of Phase-II is 22.12.2022.
10.	Redevelopment of Berths 8, 9 and barge berths at the Mormugao Goa.	Mormugao Port	19.22 MTPA	1145.36	Board has approved terminal of concession agreement with PPP operator. Awaiting for Ministry permission.
11.	Up gradation of CJ-I and CJ-II (berth construction)	VOCPT	18.00	97.76	Construction of CJI has been completed on 21.04.2019
12.	Widening of the Existing Korampallam surplus course bridge and ROB	VOCPT	-	41.55	LOI issued on 10.04.2018 62% of work has been completed and remaining work is in progress.
13.	Floating barge jetty at Haldia Dock Complex (HDC)	Haldia Dock Complex, Kolkata Port Trust	2.55 MTPA	7.32	<ul style="list-style-type: none"> Operational
14.	Setting up of Floating crane facilities to increase lightening / topping up of cargo at Sagar/other deep draft location in the water limit of Kolkata Port Trust.	Haldia Dock Complex, Kolkata Port Trust	2.02	8.00	<ul style="list-style-type: none"> Operational
15.	Appointment of O&M operator for operation and maintenance of domestic cruise terminal at Mumbai Port.	Mumbai Port		14.00	Completed
16.	Oil Jetty No. 7 at Old Kandla	Deendayal Port		42.40	18 months from the date of commencement of work subject to receipt of Environmental Clearance.
17.	Oil Jetty No.8 at old kandla	Deendayal Port		100.0	18 months from the date of commencement of work subject to receipt of Environmental Clearance
18.	Development of Marine Liquid Terminal facilities at OOT, Vadinar on captive use basis	Deendayal Port		448.0	36 months from the date of commencement of work. Concession of the Project awarded to the concessionaire on 16.10.19
19.	Development of oil jetty to handle liquid cargo and ship bunkering terminal at old Kandla-PPP Mode	Deendayal Port		233.5	24 months from the date of commencement of work. Compliance of Condition Precedent's fulfilment is in progress & after C.P's fulfilment Award of Concession will be issued.
BOT: Build Operate and Transfer; BOO: Build Own Operate; DBFOT: Design, Build, Finance, Operate and Transfer. Note: - The status of all Projects has been updated on 30 th September, 2019. Source: Major Ports					

Appendix – II

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

Sl. No	Project	Port Name	Capacity (Million Tonnes)	Project Cost (Rs. In crores)	Project Status
1	2	3	4	5	6
1.	Mechanization of CQ1&2(2Berths)	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 western dock.	Paradip Port Trust	25 MTPA	2000	In progress. EAC recommendation for grant of Environmental clearance for the project has been received & PPPAC meeting Scheduled on 8 th July 2019.Targeted to be awarded on FY 2019-20.
3.	Construction of Outer hourber.	Paradip Port Trust	140 MTPA	10,000	Will be taken up after SL.2 based on Techno-economic viability.
4.	Barge handling facilities at Khorī Creek	Deendayal Port Trust (Kandla)	4	100	Project dropped.
5.	Construction of T shape Jetty at Tekra (Phase-II)	Deendayal Port Trust (Kandla)	18	1400	Draft feasibility Report is being framed by M/s. TCRC. The project will be taken up in FY 2020-2025 (As per AECOM Master Plan). The EC & CRZ Clearance accorded by the MoEF&CC, GoI dated 19/12/2016
6.	Setting up of barge jetty at Tuna on captive use basis	DeendayalPort Trust (Kandla)	1.5	22	Project Dropped.
7.	Construction of barge jetty at Tuna on BOT basis	DeendayalPort Trust (Kandla)	5.49	255.3	Project Dropped.
8.	Strengthening of oil jetty 1 at KPT	DeendayalPort Trust (Kandla)	0.78	5.0	Work awarded to M/s Indian Build Infrastructure Pvt. Ltd. On 20/05/14. Commercial Operations of OJ No 1 started on 30/04/2015.
9.	Development of Port based multi-product SEZ	Deendayal Port Trust (Kandla)	-	1095	In view of poor interest shown by the market due to gradual tapering off of the incentives which were to be provided by the government and also possibility of a new proposed coastal economic zone, the prospects of developing SEZ at kandla look very bleak. Hence, DPT is not pursuing the proposal of SEZ anymore and instead the port may focus on development of smart Industrial Port city and also the CEZ concept, as and when it is announced by NITI Aayog.
10.	Construction of Rubble bund at North of	VOCPT	-	5.98	M/s NTCPWC, IITM, Chennai has submitted draft DPR submitted on 16.09.2019

	existing cooling water channel for reclaiming NCB III bridged material.				
11.	Dredging in front of NCB-III at VOC Port	VOCPT	10.22	55.22	M/s NTCPWC, IITM, Chennai has submitted draft DPR submitted on 16.09.2019
12.	Development of Outer Harbour 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 to bid invitation on account on high capital cost and long gestation period. Meanwhile, Navy Commissioned a study through IIT- M for developing berths at new Outer Harbour. Further, Navy informed vide lr dt: 20.02.2019 that Feasibility of development of Naval Jetty as per the Conceptual Project report submitted by IIT-M is being examined by Navy and the decision will be conveyed subsequently.
13.	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 PPP bids failed. Bids invited on land lease model were also fruitful as SIPCOT imposed sub-lease charges. NHAI & MoRTH have appointed consultant M/s. Howe for preparing Feasibility report to develop Multi Modal Logistic Park at 80 acres of lands owned by ChPT at Mappedu. The consultant has submitted inception report. Further a meeting was held on 01.03.2019 wherein a presentation was made by the consultant. MOS through SDVL appointed consultant M/s. Crisil Risk & Infrastructure Solutions Ltd., Gurgaon for preparation of Feasibility Report and the consultant had submitted draft Feasibility report on 13.06.2019, comments has been sent and requested to revise the final feasibility report.
14.	Development of Dry Dock/ Ship Repair facility at Timber pond/Boat basin in Chennai Port	Chennai Port Trust		315	Open tenders were invited during December 2013 and November 2014 based on the Land lease Model for the Dry dock Facility failed to yield any response. Subsequently, as ICG offered to develop the Dry Dock on a 30 years lease, a draft MoU was sent to ICG during march 2015 As requested by ICG further extension upto 31.05.2019 was granted. Meanwhile MoD approved the proposal during April 2019 for 99 years leasing. Accordingly, the proposal of leasing Boat basin and timber point to IGL for 99 years was placed before the CHPT Board. After approval CHPT Board, the proposal was sent to MoS and the same was placed before the Empowered committee on 05.08.2019. Approval and same is awaited. Meanwhile IPA has appointed Consultant M/s. Royal Haskoning to explore the opportunity for development of ship repair facilities for DBFOT on PPP (Feasibility

					Report) in 3 ports viz., ChPT, JNPT and VoCPT. The consultant has submitted final feasibility report on 16.07.2019. Discussion with ICG will be held shortly.
15.	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 mode to subject to favorable recommendations from the empowered committee constituted by Hon'ble Supreme Court. The port is taking measures to comply with the recommendations of the Empowered Committee. After requirements on the EC report satisfied, TNPCB will be informed.
16.	Development of JD (East) berths as Multi cargo Terminal.	Chennai Port Trust	8 MTPA	360	To be dropped on account of proposed merger with KPL as per the decision taken during video conferencing meeting held on 26.04.2019 to review of Sagarmala Project Coastal shipping activities of CHPT & KPL.
17.	Development of Captive Jetty by IOCL. For handling POL, LPG.	Kamarajar Port Limited	3 MTPA	46.50	* Concession Agreement signed on 09.06.2016. * Pre- project activities underway by IOCL.
18.	Development of Marine Liquid Terminal-II on DBFOT Basis.	Kamarajar Port Limited	3 MTPA	39.3	* LoA issued to Consortium of BPCL- HPCL on 14.02.2018 * Signing of agreement could not be achieved due to the ongoing litigations with the existing BOT operator of MLT-I (ETTPL)
19.	Mechanization of Berth No. 3 of HDC, On DBFOT basis.	Haldia Dock Complex, Kolkata Port Trust	3.5 MTPA	33.20	<ul style="list-style-type: none"> 05 applications received against RFQ.
20.	Setting up of offshore liquid bulk terminal with composite facility of cargo handling and mooring operation through installation of buoys and floating pipeline near 3 rd Oil jetty for a period of 5 year.	Haldia Dock Complex, Kolkata Port Trust	1.04 MTPA	0.40	<ul style="list-style-type: none"> Work order placed to Haldia multi engineering on 19.08.2019. Schedule completion by 30.11.2019.
21.	Construction of Liquid Cargo Handling jetty (Out Terminal-II) near 2 nd Oil Jetty on the river at Haldia Dock Complex.	Haldia Dock Complex, Kolkata Port Trust	2.00 MTPA	15.00	Work Order Place. Construction will Commence shortly.
22.	Setting up of a Liquid cargo handling jetty along with association facilities at Shalukkhali Haldia Block-II in DBFOT basis.	Haldia Dock Complex, Kolkata Port Trust	2.43 MTPA	17.25	> Concession agreement signed with M/s Hooghly Oil & Gas Terminal Pvt. Ltd. > Construction will commence after receipt of EC from MoEF&CC.

					> EC expected to received by Dec'2019
23.	Construction of Third Chemical Beth at Pir Pau.	Mumbai Port	2.00 MTPA	95.0	Planning Stage.
24.	Construction of New Fish Jetty with approach Trestle, at Mallet Bunder, Mazgaon	Mumbai Port	1500 MTPA	79.0	Planning Stage.
25.	Development of Marina.	Mumbai Port	300 yachts	359.25	SFC approval awaited.
26.	Set-up, Operate and maintain floating storage and Regasification unit at Mumbai Harbour on Land license model.	Mumbai Port	5.0 MTPA	900.0	Due Dated of bid is 06.11.2019.
27.	Development of Marina in Mumbai Port on PPP model	Mumbai Port	4000 passenger per day	700.0	Tender is due on 03.12.2019.ASI clearance is still awaited
28.	Appointment of O & M operator for Mumbai international cruise terminal at BPX Indra Dock, Mumbai	Mumbai Port	138.0	Tender is due on 06.11.2019.
29.	Management Operation and Maintenance of Konoji Angre Island (KAI) at Tourist destination on PPP basis.	Mumbai Port	400 Tourist (Average) per day	50.0	SFC approval is awaited.
30.	Selection of operator for JNPT-Mumbai port Barge/ship operations to reduce city congestion & create value for Trade on PPP mode.	Mumbai Port	560000 TEUs	65.0	Bid are being Invited.
31	Rejuvenation of Khiddepore Dock on PPP basis.	Kolkata Dock System of Kolkata Port Trust	Phase-I-2.5 Phase-II-1.5	Phase-I-20.6, Phase-II-17.7	The project is expected to be tendered by May 2020 AND Phase-I is proposed to be commissioned within 18 months thereof.
BOT: Build Operate and Transfer; BOO: Build Own Operate; DBFOT: Design, Build, Finance, Operate and Transfer. Note: - The project status of all projects is updated on 30 th September 2019. Source: Major Ports.					

Appendix – III

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

Sl. No	Project Name	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
1.	Development of Mundra Port	Mundra (Gujarat)	250	19759	<p>Phase-I of the Project completed & Operational 1.810 m Multipurpose jetty 2.1843 m container terminal & T-2 3. 1 SBM and other back up facilities</p> <p><u>Phase-2:</u> 1. 1510 m Coal Terminal, Wandh-Operational 2 810 m container Terminal Operational 3 Second SBM Operational 4. Multipurpose Berth Operational 5. 650m Container Terminal Operational. 6 650.50 m Container Terminal Operational. 7 Construction of one LNG had been completed. 8. Started handling LPG Cargo at Mundra.</p> <p><u>Phase 3</u> . DPR for development of Phase 3 has been submitted and the same is under consideration.</p>
2	Development of BGCT under phase 1 B at Hazira Development of phase 11 assets	Hazira, (Gujarat)	35	3500	Completion of construction of the following: 1) 2 container berths and 3) backup facility for handling the cargo. Out of two Multipurpose Berths under Phase 11, Construction of one berth of total 182 m quay length has been completed and operational. Assets of 2 nd Multi-purpose berth are under construction.
3	Development of Solid Cargo Port Terminal	Dahej (Gujrat)	20	980	Two solid cargo berths with cranes completed. 1)Backup area constructed. 2)Conveyor system for berth no. 1 completed as per DPR.
4	Development of Chhara Port	Chhara	8	3220	C.A signed on 29/1/2015 DPR has been approved and

		(Gujarat)			construction is in Progress
5	Development of LNG Terminal at Chhara Port	Chhara (Gujarat)	5	4233	Construction permission has been granted.
6	Captive Jetty by Jp Associates limited Jakhau port	Jakhau (Gujarat)	3	140	Made operational. But JAL jetty is taken over by Ultra-Tech Cement and jetty became non-operational since June 2013. Recently, GMB has granted the change of company.
7	Captive Jetty by Essar Bulk Terminal Limited.	Salaya (Gujarat)	7	600	The Construction of Jetty is completed. Approach bund is in final stage of condition
8	Captive Jetty by ABG Cement Ltd.	Hazira (Gujarat)	2	100	Construction permission granted. Extension in Construction period is granted by the board.
9	Captive Finger Jetty by M/s ISGEC for handling for ODC cargo at Dahej SEZ	Dahej, Gujarat	0.5	3.00	Construction works of the jetty is in progress.
10	LNG Terminal at Jafrabad by SWAN	Jafrabad, Gujarat	5.0	3940	Construction is in Progress.
11	Private jetty at Victor by Om sai Navigations Pvt. Ltd.	Jafrabad, Gujarat	0.5.	39	Construction is in Progress.
12	Development of Multipurpose Private jetty at Navlakhi Port by DMCC oil Terminal (Navlakhi) Ltd.	Navlakhi, Gujarat	4.0 MTPA	3300	MOEF, Govt of India has issued EC/CRZ clearance. Draft license agreement is under approval.
13	Development of existing port facilities (Private jetty) at Victor port by Om sai navigations Pvt. Ltd.	Victor (Pipavav), Gujarat	0.5 MTPA	290	Environment/CRZ clearance is awaited.
14	Multipurpose jetty terminal at Mankhurd (Dist. Mumbai suburban) in vashi creek by M/s Yogayatan Ports Pvt. Ltd.	Trombay (Maharashtra)	4.5	75	Currently, Phase-1 of the project is ready and pre-operational activities are in progress. Cargo operations are expected to commission by end 2019. The project has also received EC for expansion. The Port capacity will be 0.20 million tonnes for the 1 st year which will reach 4.5 MTPA by 20 th year.
15.	Multipurpose jetty terminal at village change (Tal. Uran, Dist. Raigad) in Karanja creek by M/s Karanja Terminal &	Karanja (Maharashtra)	4.8	1000	The project is inaugurated in March-2019 and trial shipment carried out successfully. Currently, project proponent (PP) is in a process of obtaining customs clearance. Commercial operations to began post customs permission. Port capacity

	Logistics Pvt.Ltd.				will be 4.8 MTPA in FY-2019-20. The ultimate capacity of 8.48 MTPA will be achieved by FY-2032.
16.	Expansion of existing captive jetty facilities at village Vave (Tal. Pen,Dist. Raigad) in Dharamtar creek by M/s JSW Dharamtar Port Pvt Ltd	Dharamtar, Maharashtra	35.0	280	Construction of berth and related facilities, in progress. Out of proposed 1750 Mtrs. Of quay length, about 1100 mtrs. Is ready. While, the capacity of 2017-18 is 15 MTPA, the projected capacity of 35 MTPA will be achieved by FY2022.
17.	Expansion of JSW Jaigad Port in Ratnagiri district by JSW Jaigarh Port Ltd.	Jaigad, Maharashtra	80.0	2800	The port facility is currently operational with 06 berths (2 berths in phase-1 and 04 berths in phase-11) Additional 03 berths (which includes LNG berth and POL) in phase-ii are under Construction. The current capacity of 2017-18 is 50 MTPA and expected capacity is 80 MTPA will be achieved by FY 2022.
18.	Establishing a captive port at Parangipettai by M/s IL &FS Limited	Parangipettai Tamil Nadu	13 MMTPA	1349	Port has been notified. Construction of Port Structure Commenced.
19.	Captive Port facility M/s. Udangudi Power Corporation Limited.	Udangudi in Thoothukudi, Tamil Nadu	6 MMTPA	1254.61	Port has been notified. Construction of Port Structure Commenced.
20.	Phase-II Development of Krishnapatnam	Krishnapatnam Port, Andhra Pradesh	44.3 MTPA of Non-Container cargo+3.3 M EUpa of container cargo.	10800	75% work completed.
21.	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.
22.	Development of Pondicherry Port as a Feeder Port to Chennai Port in association with Chennai Port Trust	Pondicherry	0.35	NIL	Trial run of handling Container cargo successfully carried out on 24.02.2018. Cargo handling operations on regular basis to commence soon after dredging works are completed under “Sagarmala” scheme.
23.	Captive Port owned by M/s Chemplast Sanmar, Chennai	Captive Marine Terminal Facility, Karaikal.	0.055	NIL	Commercial operations commenced in September 2007 and are functioning.

24.	Construction of LNG Terminal at Dhamra Port Company Limited	Dhamra Odisha	5 MMT	50	Under progress.
25	Gopalpur Ports Ltd	Gopalpur Port Ltd (Odisha)	20	20	1. Port Re-commissioned its commercial Traffic with effect from 30 th Oct, 2015. 2. Presently the port is operational with 3 berths of a total of 800 Mtr with dredge depth of 15 Mtr. 3. Completion of Breakwater, material handling system, Internal Roads and Railway siding underway. 4. The present expense till Sept. 2019 is 135 Millions.,
26.	Construction of Oil Spill vessel	Panaji Port, Goa	N.A.	4.18	Vessel is launch on 10 th oct 2019.
27.	Construction of Terminal Building	Panaji Port, Goa	N.A.	28.06	Construction work is in Progress.
28.	E.I.A. Study of Sal	Panaji Port, Goa	N.A.	1.08	E.I.A. study is completed and draft report submitted by NIO.
29.	E.I.A. Study of Talpona	Panaji Port, Goa	N.A.	0.85	E.I.A. study is completed and draft report submitted by NIO. Work Under Process, 75% Payment already made.
30.	E.I.A. Study of Galgibag	Panaji Port, Goa	N.A.	0.7	E.I.A. study is completed and draft report submitted by NIO. Work Under Process, 50% Payment already made.
31.	Repairs of Marine Slipway	Panaji Port, Goa	N.A.	0.30	Allotment order issued to P.W.D.
32.	Divar Ferry Ramp	Panaji Port, Goa	N.A.	0.24	Allotment order issued to P.W.D.
33.	Repair & Beautification of Madkaim & Chodan ramp	Panaji Port, Goa	N.A.	0.96	Post tender expenditure sanction order issued. Work order issued by PWD
34.	Beautification and Construction of end block of Panajim ferry ramp	Panaji Port, Goa	N.A.	1.49	Work order issued
35.	Widening of Ferry ramp at Old Goa	Panaji Port, Goa	N.A.	0.19	Work order issued
36.	Extension of St. Pedro ferry ramp of Diwar	Panaji Port, Goa	N.A.	0.28	Work order issued
37.	Repairs to Marine Workshop Betim	Panaji Port, Goa	N.A.	0.32	Work order issued
38.	Repairs to Tonca ramp	Panaji Port, Goa	N.A.	0.21	Work order issued
39.	Development of Honnavar Port by M/s Honnavar port Pvt Ltd., Hyderabad	Honnavar Port, Karnataka	5MTPA	500	All Statutory clearance obtained preliminary works in progress

Source: Maritime States/Maritime Boards.

Note: The project status of all Projects is updated on 30th September 2019.

Appendix – IV

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

Sl. No	Project	State/ Ports Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. In Crore)	Project Status
1	2	3	4	5	6
1.	GCPTL Proposed 2nd liquid jetty & allied infrastructure.	Dahej (Gujarat)	5	2500	DPR has been submitted which is being examined.
2.	Development of LPG Terminal at Chhara Port	Chhara (Gujarat)	2.5	1400	GMB has recommended the proposal for in-principle approval under sub-concession to the Government
3.	Development of Nargol Port	Valsad (Gujarat)			Transaction Advisor for development of Greenfield Port at Nargol has been appointed.
4.	Development of Bhavnagar Port	Bhavnagar (Gujarat)			Transaction Advisor for development of Greenfield Port at Nargol has been appointed.
5.	LNG Terminal by Swan Energy Ltd.	Jafrabad, Pipavav, Gujarat	5	4000	DPR approved, Environment Clearance received, concession agreement signed and construction is in progress.
6.	Captive jetty expansion by M/s. Sanghi CEMENT Ltd.	Jakhau, Gujarat	2	150	Environmental clearance is awaited.
7.	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.
8.	M/s Sealand Port Pvt. Ltd (a group company of IL&FS) Coal Jetty & Multypurpose Jetty under Gujarat SEZ act	Nana Layja, Kutch, Gujarat	17	1000	In principle approval is granted by GoG (December 2014). DPR submitted.

9.	M/s Sealand Port Pvt. Ltd (a group company of IL&FS) Coal Jetty & Multipurpose Jetty under Gujarat SEZ act	Nana Layja, Kutch, Gujarat	3	256	In principle approval is granted by GoG (December 2014). DPR submitted.
10.	Captive jetty by M/s Reliance Ports Terminal Ltd- 6 th oil tanker berth at Sikka - A2	Sikka, Gujarat	7	180	Construction Permission granted.
11.	SPM no 2 at Hazira by Reliance Industry Ltd.	Hazira, Gujarat	4	100	Studies are under progress.
12.	M/s Adani Cementation Ltd.	Dhnuay, Kutch, Gujarat	5.8	300	Board of GMB had granted in Principal approval for captive jetty as approved by GOG wide memorandum No: WKS/432017/G/488/GH-1 Dt 7.01.2019
13.	M/s. Shree Cement Ltd.	Dhunay, Kutch, Gujarat	3	300	GMB has granted in principal approval to SC2. Vide letter No:GMB/N/PVT-1/1849/434/7443 Dt: 25.10.2019
14.	HPCL Rajasthan Refinery Ltd.	Modhva, Gujarat	9	500	GMB has granted in principal approval to SC2. Vide letter No:GMB/N/PVT-1/1849/434/7443 Dt: 25.10.2019
15.	HPCL --- Mittal Pipelines Ltd. (HMPL)	Mandvi, Kutch, Gujarat	9	500	GMB has granted in principal approval. vide letter No:GMB/N/PVT-1/1759/327/5775 Dt: 19.8.2019
16.	CNG Terminal & Other terminals at Bhavnagar	Bhavnagar (Gujarat)	6.0.	1841	Initiate process to invite comparative bidding.
17.	Construction of captive jetty at village Nandgaon (Tal. Satpati, Dist .Palghar) by JSW Infrastructure Ltd.	Satpati Nawapur Maharashtra	8.0	221	Project has received EC on 9.12.2016. However, the project could take off due to a petition filed in Hon. High court. The court has dismissed the petition. Now the project proponent JSWIL has reworked the project to reduce the scope of work and submitted the revised proposal. The same is under examination.
18.	Construction of captive jetty at village Korlai (Tal. Murud-Janjira, Dist. Raigad) in Revdanda creek by M/s Indo Energy International Ltd.	Revdanda Maharashtra	11.75	437	The project is awaiting environmental clearance. The project proponent has submitted a proposal for change of classification of the project from captive jetty to multipurpose jetty, considering that the power purchase agreement with the Government is not forthcoming. The proposal is being processed for Board approval.

19.	Construction of captive jetty at village Vaghveera (Tal. Alibag Dist. Raigad) in Dharamtar creek by M/s Gajanana Industries Ltd.	Dharamtar Maharashtra	1.0	28	Letter of Intent (Lol) issued to Project Proponent (PP) has been cancelled due to non compliance by PP.
20.	Construction of captive jetty at village Nate (Tal. Rajapur, Dist. Ratnagiri) by M/sI-Log Ports Ltd.	Jaitapur, Maharashtra	5.0	135	PP has reworked the project considering that the power purchase agreement with the Government is not forthcoming Project has received EC. The project is expected to take off in year 2021.
21.	Construction of multipurpose jetty at village Aronda- Kiranpani (Tal. Sawantwadi, Dist. Sindhudurg) by M/S White Orchid Estate Pvt. Ltd.	Kiranpani, Maharashtra	0.5	28	Consideration of jetty facilities completed. However, port operations are kept in abeyance due to legal matters pending in the court/ NGT.
22.	Development of port at Redi (Tal. Vengurla, Dist. Sawantwadi) by Redi port Ltd.	Redi, Maharashtra	5.16	716	The project has received EC from MoEF and cc on 6.9.2018. Pre construction activities are in progress. The construction is expected for commence early 2020 and commissioning of the port is expected by year 2021. Redi port will have a capacity of 5.16 MTPA in Phase-I (2014-17) which will ultimately reach up to 33.38 MTPA in Phase-V (2032-46)
23.	Development of port at Vijaydurg (Tal. Devgad, Dist. Sawantwadi) by Vijaydurg port Pvt. Ltd.	Vijaydurg, Maharashtra	12.94	1059	The concession Agreement with the PP is terminated due to non-performance.
24.	Construction of multipurpose jetty at village Targhar (Tal.Panvel, Dist. Raigad) by M/s Shri Sai Baba Sand Dredging Co.Pvt. Ltd.	Ulwa- Belapur, Maharashtra	0.3	3	Letter of Intent (Lo) has been issued to PP on 23.10.2018 for 24 months. PP is in a process of complying with terms and conditions of Lol including obtaining EC.
25.	Construction of multipurpose jetty at village Targhar (Tal.Panvel,Dist. Raigad) by M/s Famous	Ulwa- Belapur, Maharashtra	0.2	5	Letter of Intent (Lo) has been issued to PP on 23.10.2018 for 24 months. PP is in a process of complying with terms and conditions of Lol including obtaining EC.

	Dredging Corporation				
26.	Construction of multipurpose jetty in Vasai creek near village Ghodbunder (Tal. Mira-Bhayander, Dist. Thane) by M/s Famous Dredging Corporation	Vasai, Maharashtra	0.2	5	Letter of Intent (Lo) has been issued to PP on 4.10.2019 for 24 months. PP is in a process of complying with terms and conditions of Lol including obtaining EC.
27.	Construction of captive jetty in Bankot creek near village Karivane (Tal. Shrivardhan, Dist. Raigad) by M/s Ashapura Minechem Ltd.	Bankot, Maharashtra	1	10	Letter of Intent (Lo) has been issued to PP on 6.7.2018 for 24 months. PP is in a process of complying with terms and conditions of Lol including obtaining EC.
28.	Construction of captive jetty in Dharamtar creek near village Shahabaz (Tal. Alibag, Dist. Raigad) by M/s Adani Cementation Ltd.	Dharamtar, Maharashtra	1	350	Letter of Intent (Lo) has been issued to PP on 3.7.2018 for 24 months. PP is in a process of complying with terms and conditions of Lol including obtaining EC.
29.	Construction of 9 Jetties under Sagarmala Project	Panaji Port, Goa	N.A.	73.04	EIA studies are completed and awaiting Public hearing for nine coastal passenger jetties.
30..	Construction of 4 floating Jetties in Mandovi and Chapora River	Panaji Port, Goa	N.A.	12.0	Tender has been floated and work awarded to Marine tec India Pvt. Ltd. Through MPT.
31.	Construction of 3 Ferry Boats in place of condemn Ferry boats	Panaji Port, Goa	N.A.	1.89	Work order issued and Work is in progress.
32.	Consultancy financial and trasaction advisory services for development of Maritime aschool on PPP Model.	Panaji Port, Goa	N.A.	0.24	On mode of Completion.
33.	Construction of plateform and retaining wall at Chodan	Panaji Port, Goa	N.A.	.69	Administrative Approval order issued file with PWD for tendering process.
34.	Widening of existing ferry ramp at Old Goa	Panaji Port, Goa	N.A.	0.786	Administrative Approval order issued file with PWD for tendering process.

35.	Construction of Temporary ramp at Narva.	Panaji Port, Goa	N.A.	0.637	Administrative Approval order issued file with PWD for tendering process.
36.	Construction of Solar Ferry Boat.	Panaji Port, Goa	N.A.	4.0	Waiting for IIT's technical advice.
37.	Proposal for reconstruction of Campal Light House	Panaji Port, Goa	N.A.	1.5	Demolition due to 31/10/2019
38.	Repairs to Aguada Beacons	Panaji Port, Goa	N.A.	0.78	Administrative Approval issued.
39.	Captive port facility by M/s. Coastal Tamil Nadu Power Ltd.	Panaiyur Kancheepuram (Tamil Nadu)	13 MMTPA	1832	Port has been notified. Statutory clearances pending.
40.	Development of Belekeri port as a satellite port to NMPT at Keni near Belekeri	Belekeri Port, Karnataka	10	1720	Government of India is also prepared Techno Economical Feasibility Report (TEFR) for development of Belekeri Port as a satellite Port to NMPT at Keni near Belekeri. State Government has conveyed its willingness along with NOC to GOI.
41.	Development of captive jetty at Pavinkurva, Kumta	Pavinkurva Port, Karnataka	10	1767	M/s JSW, Mumbai has submitted proposal to develop Pavinkurve port under Swiss challenge method. Government of Karnataka has considered this proposal and M/s JSW, Mumbai prepared and submitted the DPR. The i-deck, the State Government appointed consultant is reviewed and updated the DPR. M/s JSW has prepared final DPR and submitted Bid document for approval.
42.	Development of Bulk Liquid Berth for handling LNG	Karaikal Port Puducherry	5.0	2.61	Obtained Environmental Clearance from MoEF& CC: Government of Puducherry has issued "NOC" for LNG facility.
Source: Maritime States/Maritime Boards. Note: The project status of all Projects is updated on 30 th September 2019.					

Annex-I

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 (in '000 No.)	Others	Total
Kolkata	2017-18	781	0	7	172	307	236	9760	640	6127	17390
	2018-19(P)	780	7	9	985	175	8	9934	652	6653	18551
April - September	2018-19	383	0	0	248	32	3	5092	338	3162	8920
	2019-20(P)	347	21	0	215	254	0	5012	345	3108	8957
Haldia	2017-18	5651	1576	2181	7319	702	0	2672	156	20400	40501
	2018-19(P)	5277	467	2531	8633	600	0	3140	178	24564	45212
April - September	2018-19	4149	219	1087	4262	364	0	1544	90	9424	21049
	2019-20(P)	2479	1582	1069	4290	214	0	1621	90	11461	22716
Paradip	2017-18	33776	12189	29047	12861	4449	0	113	7	9593	102028
	2018-19(P)	38117	12206	32478	12377	4579	0	194	13	9324	109275
April - September	2018-19	17813	5546	16009	5410	2201	0	83	6	5836	52898
	2019-20(P)	19383	9941	13479	6251	2021	0	111	5	4367	55552
Visakhapatnam	2017-18	13057	10872	2948	5764	2873	76	6835	389	21112	63537
	2018-19(P)	14860	10897	1851	5805	3109	0	7958	450	20821	65301
April - September	2018-19	7792	4651	1210	2870	1297	52	3987	227	9902	31761
	2019-20(P)	8373	6937	32	4225	1251	0	4488	261	9444	34750
Chennai	2017-18	13497	0	0	0	230	274	29905	1549	7975	51881
	2018-19(P)	13298	0	0	0	251	57	31263	1620	8143	53012
April - September	2018-19	6785	0	0	0	83	0	16093	834	4176	27137
	2019-20(P)	6800	0	0	0	69	0	14204	736	3667	24740
Kamarajar	2017-18	3021	0	22973	199	0	0	52	3	4201	30446
	2018-19(P)	3233	0	23964	1077	42	0	1101	57	5080	34497
April - September	2018-19	2384	0	11799	763	0	0	0	0	1624	16570
	2019-20(P)	1597	0	9565	499	53	0	1352	70	2695	15761
V.O.Chidambaranar	2017-18	466	0	9795	0	1401	1161	14191	698	9569	36583
	2018-19(P)	459	215	8314	4924	785	0	14955	739	4690	34341
April - September	2018-19	314	99	4450	0	322	0	7576	371	4017	16778
	2019-20(P)	243	0	3370	0	408	50	8521	425	5674	18266
Cochin	2017-18	18664	0	44	0	223	0	7694	556	2518	29143
	2018-19(P)	21340	0	43	0	218	0	8116	594	2305	32022
April - September	2018-19	11219	0	43	0	100	0	3814	279	730	15906
	2019-20(P)	10907	0	0	0	97	0	4311	312	1330	16645
New Mangalore	2017-18	22509	4903	2492	4205	693	51	1744	115	5462	42059
	2018-19(P)	23636	4625	2198	329	525	0	1920	132	9277	42510
April - September	2018-19	11774	2061	74	86	309	1	1013	68	4861	20179
	2019-20(P)	8632	2296	900	10	314	0	1119	78	4593	17864
Mormugao	2017-18	629	10259	1999	8514	182	0	425	32	4889	26897
	2018-19(P)	600	4181	1680	6066	268	0	467	37	4421	17683
April - September	2018-19	299	3188	558	2853	124	0	227	18	1980	9229
	2019-20(P)	311	714	700	3906	27	0	212	16	1762	7632
J. L. Nehru	2017-18	4013	0	0	0	0	0	57866	4833	4124	66004
	2018-19(P)	3999	0	0	0	0	0	62114	5133	4593	70706
April - September	2018-19	2196	0	0	0	0	0	30718	2518	1900	34814
	2019-20(P)	1606	0	0	0	0	0	30574	2573	2231	34410
Mumbai	2017-18	36745	0	2418	0	288	0	630	42	22821	62902
	2018-19(P)	36435	7266	4695	1710	430	0	329	27	9723	60588
April - September	2018-19	18190	3304	1298	1346	193	0	175	14	4886	29392
	2019-20(P)	18050	3290	2125	1212	225	0	160	17	5040	30101
Deendayal (Kandla)	2017-18	60452	1371	13241	546	3704	598	1839	117	28349	110099
	2018-19(P)	58930	1479	16359	818	4245	730	3954	243	28887	115402
April - September	2018-19	31310	676	8133	392	2234	400	1712	103	13773	58630
	2019-20(P)	30717	277	8199	610	2434	448	3316	214	15047	61047
All Ports	2017-18	213261	41170	87145	39580	15052	2396	133726	9137	147140	679470
	2018-19(P)	220964	41343	94121	42724	15227	795	145445	9875	138481	699100
April - September	2018-19	114608	19744	44661	18230	7259	456	72034	4866	66271	343263
	2019-20(P)	109445	25057	39438	21218	7366	498	75002	5143	70418	348441

* Includes POL crude and POL Products only

@ includes iron ore fine and pellets only

includes Fertilizer finished and FRM-Dry only

** excludes pulses

P : Provisional

Source: Major Ports.

Commodity-wise Traffic Handled at Non-Major Ports

(000 Tonnes)

State/UTs Maritime	Period	POL*	Iron Ore**	Building Material\$	Coal@	Fertiliser & FRM&	Container	Others	Total
1	2	3	4	5	6	7	8	9	10
Gujarat	2017-18	188465	11584	10509	65962	5475	66312	22462	370769
	2018-19(P)	185998	12762	11024	75410	7792	74985	31226	399197
April-September	2018-19	96728	6090	4254	35405	4352	37155	9069	193053
	2019-20 (P)	94816	6715	4845	38291	4415	39843	11981	200906
Maharashtra	2017-18	2528	13378	2125	15481	870	0	3524	37906
	2018-19(P)	1196	16956	2252	18091	502	0	5424	44421
April-September	2018-19	444	8576	983	7879	269	0	1967	20118
	2019-20 (P)	442	4729	1083	10230	172	0	2838	19495
Andhra Pradesh	2017-18	1449	5949	1731	45262	5106	7793	18995	86285
	2018-19(P)	1398	8130	1694	56312	6900	8835	20065	103333
April-September	2018-19	630	5716	684	28084	2809	4028	10862	52813
	2019-20 (P)	688	2939	471	29269	3059	4631	9538	50594
Goa	2017-18	0	72	0	0	0	0	0	72
	2018-19(P)	0	0	0	0	0	0	15	15
April-September	2018-19	0	4	0	0	0	0	0	4
	2019-20 (P)	0	2	0	0	0	0	0	2
Tamil Nadu	2017-18	424	0	4	0	31	0	645	1103
	2018-19(P)	574	0	56	0	48	0	285	963
April-September	2018-19	302	0	7	0	24	0	38	371
	2019-20 (P)	250	0	6	0	0	0	226	483
Karnataka	2017-18	182	0	44	0	36	0	419	681
	2018-19(P)	164	0	44	0	49	0	787	1044
April-September	2018-19	173	0	7	0	26	0	156	361
	2019-20 (P)	70	0	14	0	40	0	375	499
A&N	2017-18	196	0	324	25	0	485	388	1418
	2018-19(P)	203	0	329	0	0	619	343	1495
April-September	2018-19	107	0	265	0	1	290	298	961
	2019-20 (P)	94	0	309	0	0	336	163	903
Odisha	2017-18	0	4916	29	13860	134	0	3656	22595
	2018-19(P)	0	4579	59	12925	510	0	4113	22186
April-September	2018-19	0	1750	0	5656	220	0	2026	9652
	2019-20 (P)	0	4556	75	7034	224	0	3474	15362
Kerala	2017-18	22	0	0	0	0	0	116	138
	2018-19(P)	19	0	0	0	0	25	157	201
April-September	2018-19	9	0	0	0	0	0	42	51
	2019-20 (P)	12	0	0	0	0	0	54	67
Puducherry	2017-18	156	696	822	6094	62	1	290	8122
	2018-19(P)	18	440	527	6338	285	0	761	8369
April-September	2018-19	10	258	501	2623	198	0	65	3654
	2019-20 (P)	169	55	804	3987	130	0	93	5238
All Non Major Ports	2017-18	193422	36596	15588	146684	11714	74592	50493	529089
	2018-19(P)	189570	42867	15986	169075	16087	84465	63176	581225
April-September	2018-19	98403	22393	6701	79647	7897	41474	24523	281037
	2019-20 (P)	96542	18996	7609	88810	8039	44810	28743	293549

* includes POL crude, POL products, LPG/LNG, Naphtha and Fuel oil.

\$ includes Building Material and Cement/Clinker

** includes iron ore fines and Pellets

& includes Fertilisers, FRM-Liquid, FRM_Dry and Rock Phosphate

Source: Non Major Ports/State Maritime Boards

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/DPT	JNPT	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
POL														
As on 31.3.14	4.50	17.00	43.00	25.65	3.00	17.67	2.30	24.01	49.17	1.50	32.00	66.60	5.50	291.90
As on 31.3.15	4.50	17.00	53.00	27.49	4.00	17.67	2.30	24.01	49.17	1.50	32.00	66.60	6.50	305.74
As on 31.3.16	4.50	17.00	54.50	27.49	4.00	17.67	3.15	24.01	49.17	1.50	34.50	70.82	6.50	314.81
As on 31.3.17	9.10	18.00	54.50	27.49	4.00	17.67	3.15	30.26	49.17	1.50	44.50	89.02	6.50	354.86
As on 31.3.18														0.00
As on 31.3.19														0.00
As on 30.9.19														
Iron Ore														
As on 31.3.14	-	6.00	4.50	12.50	6.00	8.00	-	-	7.50	27.50	-	-	-	72.00
As on 31.3.15	-	6.00	4.50	12.50	6.00	8.00	-	-	7.50	27.50	-	-	-	72.00
As on 31.3.16	-	6.00	6.39	12.50	6.00	8.00			7.50	27.50				73.89
As on 31.3.17		6.00	6.39	12.50	6.00	8.00			7.50	27.50				73.89
As on 31.3.18														0.00
As on 31.3.19														0.00
As on 30.9.19														
Coal														
As on 31.3.14	-	7.00	20.00	-	21.00	-	12.55	-	5.40	-	-	-	-	65.95
As on 31.3.15	-	7.00	21.00	-	24.00	-	12.55	-	5.40	4.61	-	-	-	74.56
As on 31.3.16	-	9.00	21.00	-	32.00	-	24.18	-	5.40	8.94	-	-	-	100.52
As on 31.3.17		10.00	32.00		32.00		26.82		7.67	8.94				117.43
As on 31.3.18														0.00
As on 31.3.19														0.00
As on 30.9.19														
Fertiliser														
As on 31.3.14	-	-	7.50	1.00	-	-	-	0.80	-	-	-	2.00	-	11.30
As on 31.3.15	-	-	7.50	1.00	-	-	-	0.80	-	-	-	2.00	-	11.30
As on 31.3.16	-	-	7.50	1.87	-	-	-	0.80	-	-	-	2.00	-	12.17
As on 31.3.17			8.00	1.87				1.13				2.00		13.00
As on 31.3.18														0.00
As on 31.3.19														0.00
As on 30.9.19														
Break-Bulk Cargo														
As on 31.3.14	6.74	15.75	33.80	47.09	1.00	17.92	22.21	12.35	15.70	7.65	11.53	26.52 *	0.90	219.16
As on 31.3.15	6.74	15.75	33.80	53.09	3.00	17.92	24.70	12.35	15.70	10.15	11.53	45.63	0.90	251.26
As on 31.3.16	6.74	29.89	37.55	59.69	3.00	22.92	24.70	12.35	15.70	10.85	14.83	51.04	0.90	290.16
As on 31.3.17	7.25	31.89	42.55	62.69	5.00	22.92	28.70	12.68	23.29	12.10	20.83	52.04	0.90	322.84
As on 31.3.18														0.00
As on 31.3.19														0.00
As on 30.9.19														
Container														
As on 31.3.14	5.90	4.00	-	2.68	-	42.45	5.00	12.50	-	-	1.00	7.20	59.48 @	140.21
As on 31.3.15	9.86	4.00	-	2.68	-	42.45	5.00	12.50	-	-	1.00	7.20	71.97@	156.66
As on 31.3.16	9.86	4.00		6.20		44.85	7.23	12.50				7.20	81.97	173.81
As on 31.3.17	9.86	4.00		6.20	10.00	44.85	7.23	12.50				7.20	81.97	183.81
As on 31.3.18														0.00
As on 31.3.19														0.00
As on 30.9.19														
TOTAL														
As on 31.3.14	17.14	49.75	108.80	88.92	31.00	86.04	42.06	49.66	77.77	36.65	44.53	102.32	65.88	800.52
As on 31.3.15	21.10	49.75	119.80	96.76	37.00	86.04	44.55	49.66	77.77	43.76	44.53	121.43	79.37	871.52
As on 31.3.16	21.10	65.89	126.94	107.75	45.00	93.44	59.26	49.66	77.77	48.79	49.33	131.06	89.37	965.36
As on 31.3.17**	26.21	69.89	143.44	110.75	57.00	93.44	65.90	56.57	87.63	50.04	65.33	150.26	89.37	1065.83
As on 31.3.18	31.57	51.00	239.00	131.09	84.00	134.00	94.83	74.50	98.00	63.00	79.00	253.20	118.00	1451.19
As on 31.3.19	31.57	51.00	239.00	131.09	91.00	134.00	111.46	78.60	98.00	63.40	79.00	267.10	138.87	1514.09
As on 30.9.19	31.57	51.00	239.00	134.18	91.00	135.00	111.46	78.60	104.73	63.40	79.00	267.10	138.87	1524.91

(*) Port capacity re-rated by Ministry based on Berthing Policy as per international norms.

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

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

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

**Port capacity re-rated by Ministry based on berthing policy as per international norms. Major Ports re-rated capacity during 2016-17 was 1359 MTPA (Kolkata-27, Haldia-51, Paradip-234, Vizag-121, Kamarajar-66, Chennai-134, VOC-79, Cochin-74, NMPT-98, MPT-63, MbPT-78, JNPT-88 & DPT-246)

Source : Development Wing / Port Division M/o of Shipping.

Annexure-IV

Capacity of (Non-Major Ports) Maritime Boards/States as on 31st March

(Million Tonnes)

S.No.	States	2014-15	2015-16	2016-17	2017-18	2018-19
1	Gujarat	422.00	466.00	501.00	523.00	542.00
2	Maharashtra	68.60	69.80	85.80	100.90	102.40
3	Goa	0.60	0.43	0.12	0.07	0.02
4	Tamil Nadu	0.83	0.86	1.17	1.10	2.15
5	Kerala	0.02	0.02	0.01	0.01	0.55
6	Karnataka	0.66	0.84	0.71	0.68	17.80
7	Andhra Pradesh	154.40	154.40	154.40	178.00	178.00
8	Odisha	27.50	27.50	27.50	34.50	47.50
9	Puducherry	11.40	14.90	14.90	14.90	16.90
10	Andaman & Nicobar Islands	3.00	3.00	3.00	3.00	3.00
	Total	689.01	737.75	788.61	856.16	910.32

Source: Non-Major Ports /State Maritime Board