

PORT FACILITIES



Indian Minerals Yearbook 2021

(Part- I : GENERAL REVIEWS)

60th Edition

PORT FACILITIES

(ADVANCE RELEASE)

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MINISTRY OF MINES
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6 Port Facilities

GENERAL

Growth

Ports are economic and service provision entities of remarkable importance because they act as a place for the interchange of two transport modes, maritime and land, whether by rail or road. India has a long coastline of about 7,517 km spread across the western and eastern shelves of the mainland and also along the islands. It is a strategic geographical asset for country's trade. There are twelve major ports in India out of which six are located on the East Coast and six on the West Coast. In addition, there are about 212 notified non-major ports in the country. State-wise and coast-wise number of major ports and

non-major ports are provided in Table-1. Shipping plays an important role in the economic development of the country, especially in India's International Trade. The total cargo handled at Indian Ports (major and non-major) decreased to 1,249.99 million tonnes in 2020-21 from 1,319.97 million tonnes in 2019-20 reflecting a negative growth of 5.3% during 2020-21. The total cargo handled at Indian ports. India's major ports handled around 53.8% the growth profile of cargo throughput at India's Major and Non-major ports in terms of their coastal and overseas trade during 2018-19 to 2020-21 is reflected in Table - 2.

Table -1 : Number of Major and Non-Major Ports in the Maritime States

(As on 31.03.2021)

State/ U.T.	Number of Major Ports	Number of Non-Major Ports	Total Number of Ports
WEST COAST			
Gujarat	1	48	49
Maharashtra	2	48	50
Goa	1	5	6
Daman & Diu	-	2	2
Karnataka	1	12	13
Kerala	1	17	18
Lakshadweep Islands	-	10	10
EAST COAST			
Tamil Nadu	3	15	18
Puducherry	-	3	3
Andhra Pradesh	1	13	14
Odisha	1	14	15
West Bengal	1	1	2
Andaman & Nicobar Islands	-	24	24
TOTAL	12	212	224

Source: Basic Port Statistics of India, 2020-21.

Table -2 : Growth in Cargo Traffic at Indian Ports (In%)

Port	2018-19			2019-20			2020-21		
	OT	CT	TT	OT	CT	TT	OT	CT	TT
Major	1.54	7.51	2.90	2.32	-3.96	0.82	-3.64	-7.77	-4.57
Non-major	7.87	23.05	10.12	7.15	-2.44	5.57	-4.71	-14.06	-6.14
All Ports	4.47	12.73	6.06	4.63	-3.41	2.98	-4.16	-10.10	-5.30

Note: OT- Overseas Cargo Traffic; CT- Coastal Cargo Traffic; TT- Total Cargo Traffic

Source: Basic Port Statistics of India, 2020-21.

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The period 2001-02 to 2020-21 saw compound annual growth rate (CAGR) of 6.42% in total cargo throughput at Indian ports. The compound annual growth in Cargo handled at Non-major ports during 2001-02 to 2020-21 was 9.9%. The overall cargo handled by Major ports and Non- major ports during 2020-21 registered decline of 4.6% and 6.1% respectively. Commodity-wise traffic handled, in respect of principal

Table - 3 : Commodity-wise Traffic handled by All Ports

(In million tonnes)				
Sl.No.	Commodity-wise Traffic	2018-19	2019-20	2020-21
1.	P.O.L (Crude & Products)	412.69	418.79	348.69
2.	Iron ore	83.64	95.65	107.32
3.	Building Material	16.16	15	13.89
4.	Coal	308.58	297.4	256.77
5.	Fertiliser raw material	31.64	32.11	31.36
6.	Other/cargo	429.07	461.01	491.96
Total		1281.78	1319.97	1249.99

Source: Ministry of Shipping, Annual Report, 2020-21.

Table - 4 : State-wise Cargo Traffic at Indian Ports during 2020-21

(In million tonnes)			
State	Major Ports	Non-major ports	Total
1. Gujarat	117.57	387.57	505.14
2. Maharashtra	118.13	39.84	157.98
3. Goa	21.99	0.04	22.02
4. Karnataka	36.50	0.79	37.29
5. Kerala	31.50	0.11	31.62
6. Tamil Nadu	101.23	7.41	108.64
7. Andhra Pradesh	69.84	89.64	159.48
8. Odisha	114.55	43.03	157.58
9. West Bengal	61.37	0.00	61.37
10. Others ^(a)	0.00	8.88	8.88
11. Total	672.68	577.30	1249.99

Note: (a) Includes Puducherry, A&N Islands and Lakshadweep Port

Source: Ministry of Shipping, Annual Report, 2020-21.

commodities, by all the ports (Major & Non-major) in India from the year 2018-19 to 2020-21 are presented in Table - 3.

The commodity composition of the total traffic at Indian Ports has shown marginal changes over the years. POL & its products continue to be the single largest commodity handled by the ports, constituting 27.90% of the total seaborne traffic followed by coal (20.54%), iron ore (8.59%) and FRM (2.51%) in 2020-21.

The share of Major ports and Maritime States of India in terms of cargo handled is furnished in Table – 4. Amongst the States, Gujarat has emerged as the premier maritime State in terms of port traffic and accounted for 40.4% of the total cargo handled at Indian ports. It is also noteworthy that about 67.1% of the cargo handled by Non-major ports is from the State of Gujarat. In terms of India’s total seaborne traffic, Gujarat is followed by Andhra Pradesh (12.8%), Maharashtra & Odisha (12.6% each), and Tamil Nadu with share of (8.7%). The twelve Major ports in India handled about 53.81% of the maritime cargo traffic of the country in 2020-21. Traffic handled at the Major ports during last one decade has been increasing over the years except in 2011-12 & 2012-13 in tandem with the economic activity and volume of trade turnover. The total traffic handled by the Major ports has recorded around 1.2 times increase from 561.1 million tonnes in 2009-10 to 672.68 million tonnes in 2020-21.

The Ministry of Shipping encompasses within its fold major ports and inland water transport among others. All Major ports in the country presently have both rail and road connectivity.

Sethusamudram Corporation Ltd (SCL)

The project is kept in abeyance in view of the litigations filed in the Supreme Court of India.

Private Sector Participation in Major Ports

The Private Sector is envisaged to fund projects under Public-Private-Partnership (PPP) mode through Design-Build-Finance-Operate-Transfer (DBFOT) or Build-Operate-Own-Transfer (BOOT) models. As per the report of Indian Port Association, the details of projects awarded are furnished in Table-5.

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**Table-5: PPP Projects Under Implementation/
Operation in Major Ports**

Sl. No.	Projects/Development	Estimated Cost (In ₹ crore)	Capacity (MMTPA)
Projects under Implementation: (As on 31.05.2020)			
Jawaharlal Nehru Port Trust (JNPT)			
1.	Development of Container Terminals of 2,000 m length at JNPT (4 th Container terminal)	7915.00	60.00
Kamarajar Port Ltd (Ennore)			
2.	Modification of existing Iron Ore Terminal to also handle coal (SIOTL)	229.00	12.00
3.	Development of Marine Liquid Terminal-II on DBFOT Basis	393.00	3.00
4.	Development of LNG Terminal on Captive Basis	5151.00	5.00
5.	Development of IOCL Oil Jetty (Captive)	480.00	3.00
6.	Construction of Coal Berth 3 for TANGEDCO (Captive)	235.14	9.00
7.	Construction of Coal Berth 4 for TANGEDCO (Captive)	244.51	9.00
Deendayal Port Trust			
8.	Development of Oil Jetty to handle liquid cargo ship bunkering Terminal	233.50	3.39
9.	Development of Marine Liquid Terminal Facilities consisting of SPM & Two product jetties in KPT waters at OOT, Vadar on captive-use basis	448.00	24.50
Kolkata Port Trust			
10.	Setting up of Liquid Cargo Handling Jetty at Shalukkhali, Haldia Dock -II	172.52	2.43
Mormugao Port Trust			
11.	Redevelopment of Berths 8, 9 and Barge Berths	1145.36	19.22
New Mangalore Port Trust			
12.	Provide Handling Equipment at Berth No. 18 (Old Berth no.12) for handling bulk cargo & containers under PPP Mode	469.46	6.73

contd.

(Table-5 contd)

Sl. No.	Projects/ Development	Estimated Cost (In ₹ crore)	Capacity (MMTPA)
13.	Mechanisation of Berth No. 14 for handling container and other clean cargo on PPP mode	280.71	6.02
Paradip Port Trust			
14.	Development of New Coal Berth for handling Coal imports at Paradip Port on BOT basis.	655.56	10.00
15.	Development of Clean Multi-cargo Berth in Southern Dock	430.78	5.00
16.	Development of Deep Draft Iron Ore Berth	740.19	10.00
17.	Mechanisation of EQ1 to EQ3 berths	1437.76	30.00
Visakhapatnam Port Trust			
18.	Development of East Quay-1A (EQ-1A) berth on south side of EQ-1 berth in the Inner harbour of Visakhapatnam Port on DBFOT basis	313.39	7.36
19.	Extension of existing container MTEUs terminal	633.11	0.54
VOC Port Trust, Tuticorin			
20.	Construction of North Cargo Berth-II	332.16	7.00
21.	Development of Shallow draught Berth on PPP mode for handling construction materials	65.37	2.00
22.	Development of facilities for Handling Thermal Coal for SPIC Electric Power Corpn Pvt Ltd (SEPC)	214.50	2.50
Mumbai Port Trust			
23.	Bunkering Terminal	50.00	2.00
PPP & Captive Projects under Operation			
Chennai Port Trust			
1.	Container Terminal-1 M/s CCTPL	790.60	31.30
2.	Development of 2 nd Container Terminal (M/s CITPL)	783.32	29.50
Cochin Port Trust			
3.	Vallarpadam Container Terminal ICTT	2118.00	40.00
4.	LNG Terminal	4182.00	5.00
5.	Crude Oil Handling Facility for BPCL-Kochi Refinery (Formerly KRL— a Central PSU) (Captive)	720.00	13.00
JLN Port Trust			
6.	Container Terminal, NSICT	750.00	13.20
7.	Extension of container berth by 330 m towards north	600.00	10.00
8.	Third Container Terminal	1078.00	15.60
9.	BPCL Jetty (Captive)	200.00	5.50

(contd)

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(Table-5 contd)

Sl. No.	Projects/ Development	Estimated Cost (In ₹ crore)	Capacity (MMTPA)
Kamarajar Port Ltd (Ennore)			
10.	Development of Marine Liquid Terminal – I on DBFOT Basis	252.00	3.00
11.	Development of Coal Terminal for users other than TNEB on BOT basis	399.00	8.00
12.	Development of Container Terminal on DBFOT basis (2 phases) (Ph-1- Rs 724 Cr and Ph-2- Rs 546 Cr)	1270.00	16.80
13.	Development of Multi-Cargo berth on DBFOT Basis	151.00	2.00
14.	Coal Berth-1 for TANGEDCO (Captive)	80.38	8.00
15.	Coal Berth-1 for TANGEDCO (Captive)	80.38	8.00
Deendayal Port Trust			
16.	Development of 13 th Berth other than liquid and container cargo berth	188.87	1.50
17.	Development of 15 th multipurpose cargo berth at Kandla	188.87	1.50
18.	Container Freight Station	41.07	3.00
19.	Dry Bulk Terminal off Terka near Tuna on BOT basis (Outside Kandla Creek)	1060.00	14.11
20.	Development, operation & maintenance of Container Terminal (Berth 11 & 12) on BOT	159.81	7.20
21.	Oil Jetty for IOCL (Captive)	20.70	2.00
22.	Oil Jetty related facilities at Vadinar (ESSAR) (Captive)	750.00	13.50
23.	Fifth Oil Jetty (IFFCO)(Captive)	24.00	2.00
24.	Setting up of Captive Barge Jetty at Old Kandla (IFFCO)	27.00	1.50
Kolkata Port Trust			
25.	Multipurpose Berth No. 12	35.00	1.12
26.	Multipurpose Berth No. 4A	150.00	2.00
Mormugao Port Trust			
27.	Development of Coal Handling Terminal at Berth No.7	406.00	4.61
28.	Bulk Cargo berths No. 5A & 6A	250.00	5.00
New Mangalore Port Trust			
29.	Setting up of Bulk Cement Handling facility for M/s Ambuja Cement Ltd (Captive)	98.00	1.00
30.	Construction of Captive Jetty for handling Coal by M/s UPCL	376.52	5.40
Paradip Port Trust			
31.	Mechanisation of Cargo Handling Project-1	37.32	2.00

(contd)

(Table-5 conclud)

Sl. No.	Projects/ Development	Estimated Cost (In ₹ crore)	Capacity (MMTPA)
32.	Mechanisation of Cargo Handling Project-2	25.13	2.00
33.	a) By OSL b) By Bothra Shipping Services c) By ABCT Pvt. Ltd Supply, installation of 3 Nos. of HMC	87.75	3.75
34.	a) By Crew Pvt. Ltd (60T) b) By OSL (100 T) c) By OSL (60 T)	87.75	3.75
35.	Captive Fertilizer Berth to PPL	20.00	4.00
36.	Captive Fertilizer Berth to IFFCO	26.17	4.00
37.	Construction of SPM Captive Berth	500.00	15.00
38.	Mechanisation of Central Quay-III Berth	40.00	6.00
39.	Construction of 2 nd SPM Captive Berth	746.17	11.00
40.	Construction of 3 rd SPM Captive Berth	746.17	11.00
41.	Development of South Oil Jetty (Captive)	222.29	10.00
Visakhapatnam Port Trust			
42.	Multipurpose Berths-EQ-8 & EQ-9	320.29	6.47
43.	Container Terminal, Outer harbour	86.35	5.60
44.	Development of WQ-6 berth for handling Dry Bulk Cargoes	114.50	2.08
45.	Development of EQ-10 berth for handling Liquid Cargoes	55.38	1.84
46.	Mechanised Coal handling facilities at GCB in the Outer Harbour	444.10	10.18
47.	Development of EQ-1 Berth	323.18	6.41
48.	Upgradation of existing facility in the outer harbour and creation of new facility in the inner harbour for handling iron ore.	845.41	23.00
49.	Single Point Mooring —Captive facility developed by H.P.C.L	643.48	8.00
VOC Port Trust, Tuticorin			
50.	Development of 7 th Berth as Container Terminal	135.00	5.00
51.	Berth No.8 Container Terminal	312.32	7.20
52.	Deployment of one number additional Harbour Mobile Crane at III & IV	24.60	4.36
53.	Upgradation of Mechanical handling equipment in Berth No.1 to Berth No.6 and Berth No. 9	49.20	8.72
54.	NTPL Captive berth — North Cargo Berth I (Captive)	43.72	6.30
55.	Coal Jetty-I & II	-	6.25

Source : Indian Port Association

Inland Water Transport (IWT)

India has large number of inland waterways consisting of rivers, canals, backwaters, creeks, lakes, etc., which have the potential for development of efficient waterways transport network. IWT is referred to as operationally cheaper, high in fuel efficiency and environmental-friendly mode of transport. Inland Waterways Authority of India (IWAI) came into existence on 27.10.1986 for development and regulation of inland waterways for the purpose of shipping & navigation. The Authority primarily undertakes projects for development and maintenance of IWT infrastructure on National Waterways through grant received from Ministry of Shipping. This mode of transport is a potential supplement to the overburdened rail and that of congested roads and efforts are underway to develop this mode of transportation and to operationalise it. Waterways declared as National Waterways by the Act of Parliament come under the purview of Central Government, while other waterways remain under the respective State Government's domain.

The Kolkata Port, being a riverline port and strategically connected to National Waterway No. 1 and National Waterway No.2, has huge potential in respect of movement of cargo through Inland Water Transport (IWT) mode.

National Waterways

A major boost to IWT Sector has been provided by the Government of India through enactment of National Waterways Act, 2016 (No.17 of 2016) dated 26 March, 2016 which came into force w.e.f 12 April, 2016. With the enactment of the National Waterways Act, 2016, the total number of national waterways is now 111 including 05 waterways declared through earlier Acts. These 111 National Waterways cover a total length of 20,375 km spread across 24 States in the country. National Waterways of India are well in line to become the lifeline of the country

Development of National Waterways

National Waterway-1: Allahabad–Haldia stretch of the Ganga–Bhagirathi–Hooghly River System (Total length of 1,620 km as declared in 1986) runs in the States of Uttar Pradesh, Bihar, Jharkhand and West Bengal.

During 2020-21, Bandalling works of 4,800 m in Tribeni-Rajmahal (399 km) stretch and 16,110 m in

Rajmahal–Chunar (801 km) stretch were executed for developing and maintaining the navigation channel (fairway). Besides, 0.38 lakh m³ dredging in Tribeni – Rajmahal stretch and 1.62 lakh m³ dredging in Rajmahal–Varanasi / Chunar stretch were carried out by deploying IWAI's dredgers apart from dredging carried out under Assured Depth Contracts.

National Waterway-2 : Dhubri–Sadiya stretch of River Brahmaputra (Total length of 891 km as declared in 1988) is in the State of Assam. Many rivers join this mighty river to form a fish bone structure. About 1,687 km stretches of tributaries of Rivers Brahmaputra and Barak have been identified in NER having potential for development as feeder route. During the year 2019-20, in Phase-I stretch, dredging work has been completed at critical shoal locations. Land acquisition for permanent terminals at Muktyala, Harschandrapuram and Ibrahimpatnam is in progress and construction of four floating terminal too is in progress.

National Waterway-3: Kottapuram–Kollam stretch of West Coast Canal along with Udyogmandal and Champakara Canals (Total length of 205 km as declared in 1993) is in the State of Kerala. The NW-3 was extended by another 165 km towards North from Kottapuram to Kozhikode during April 2016 with declaration of National Waterway Act, 2016

Preparation of two stage DPR for the development of extended stretch is under progress.

National Waterway-4: For development of the National Waterway-4 in Andhra Pradesh, an MoU was signed with Government of Andhra Pradesh on 14th April, 2016. A project has been sanctioned for ₹ 96.0 crore for developing the stretch between Vijayawada and Muktyala (82 km) of River Krishna in Phase–I. Dredging work was taken up at critical shoals in Vijayawada to Muktyala (82 km) stretch of River Krishna as a part of Phase – I development.

National Waterway-5: For developing 332 km stretch in 2 phases between Talcher and Paradip / Dhamra on NW-5, an MoU (Memorandum of Understanding) with Government of Odisha, Paradip Port and Dhamra Port Co. Ltd was signed by IWAI on 30.6.2014. The Phase-I development of 212 km stretch between Pankapal and Paradip/Dhamra is already under progress. Applications for CRZ and wildlife clearance were submitted to OCZMA and views of OCZMA obtained. Monthly Longitudinal thalwas survey between Paradip/ Dharma and Pankapal is being conducted.

National Waterway-6: River Barak was declared as National Waterway-16 (NW-16) in the year 2016. It connects Silchar, Karimganj and Badarpur in Cachar valley of Assam with Haldia and Kolkata ports through Indo-Bangladesh Protocol (IBP) Route.

Development of 106 New National Waterways

National Waterways Act, 2016 (No.17 of 2016) was published in the Gazette of India Extraordinary Part II and Section I dated 26th March, 2016 (which came into effect from 12th April, 2016) along with the list of 106 new National Waterways.

Status of 106 New National Waterways

Feasibility Studies (FSs) were initiated on 106 National Waterways (NWs) by Inland Waterways Authority of India (IWAI), out of which, studies on 103 NWs have been completed. Based on the finding of FSs, 36 NWs have so far been found feasible for development. Based on the Detailed Project Reports, development work have been initiated on 8 most viable NWs.

Accordingly, a Restructuring Committee has been constituted to initiate the restructuring process on an urgent basis.

As part of the preparatory works to undertake development on 106 new National Waterways, IWAI has grouped them under 3 categories as under:

Category-I: Eight waterways which are considered to be the most viable and the following stretches have been taken up for development in Phase-I.

1. River Barak (NW-16) – Silchar to Bhanga (71 km).
2. River Gandak (NW-37) – Ganga confluence to Bagaha Bridge (250 km approx.)
3. Sunderbans (Protocol Route) Waterways (NW-97)–Namkhana to Athara Banki Khal (172 km).
4. Three NWs of Goa: would be taken up through Govt. of Goa & Mormugao Port Trust:
 - i) River Cumberjua (NW-27),
 - ii) River Mandovi (NW-68),
 - iii) River Zuari (NW-111)
5. Alappuzha–Kottayam–Athirampuzha Canal (NW -9) - Alappuzha–Kottayam.
6. River Rupnarayan (West Bengal) (NW - 86): Approximately 34 km between Geonkhali and Kolaghat

Accordingly, consultancy assignments for preparing EPC tender documents contract and

environmental studies for these waterways were undertaken in phased manner.

Category – II: Forty-six waterways which are in the coastal regions and have some tidal stretches were clubbed in Category-II. Two stage DPR studies (Stage I – Feasibility study and based on viability and Stage II – DPR study) for all the rivers were awarded. On evaluation of Feasibility Study reports, Consultancy services for 2nd stage study, i.e., preparation of DPRs were taken up for 26 NWs while 20 NWs were not found feasible. Out of 26 NWs, 24 DPRs were received and taken up for finalisation. DPR of NW-53 (Kalyan – Thane – Mumbai Waterway, Vasai Creek and River Ulhas) was in the process of being finalised by Thane Municipal Corporation and preparation of DPR of River Tizu (NW-101) was initiated.

Category – III: The remaining 52 NWs which are located in remote, inaccessible and hilly regions were grouped in this category. Initially, only Feasibility Study reports for all these 52 NWs were awarded. The DPR work for River Yamuna (NW-110) and River Jhelum (NW-49) was awarded in the year 2017-18.

Recent Initiatives

Initiatives for Growth of Traffic on National Waterways

1. Fairway Development Works: Fairway development works to ensure Least Available Depth (LAD) of 3.0 meter in Haldia-Barh, 2.5 meter in Barh-Ghazipur and 2.2 meter in Ghazipur – Varanasi stretches on NW-1 are in progress under the Jal Marg Vikas Project (JMVP) which has been undertaken by IWAI with technical and financial assistance from World Bank. Similarly, to improve the connectivity between NW-1 and NW-2/ NW-16 via the Indo–Bangladesh protocol route, the critical and shallow stretches between Sirajganj and Daikhowa on protocol Route No.1 & 2 and Ashuganj and Zakiganj on protocol Route No.3 & 4 in Bangladesh are being jointly developed by India and Bangladesh for round the year navigability (with targeted LAD of 2.5 m).

2. Operations & Management of IWAI's Terminals by Private Operators: IWAI is in the process of handing over its terminals on all NWs to private operators on PPP basis. The newly constructed Multimodal Terminals (MMTs) at Varanasi (capacity 1.26 million tonnes), Sahibganj (capacity 3.03 million tonnes) and Haldia (capacity 3.18 million tonnes) on NW-1 under JMVP are in the process of being tendered out to private operators

on PPP basis for operation and maintenance. Similar exercise is in progress for IWAI's terminals at Gaihat (Patna) on National Waterway-1 and Dhubri, Pandu (Guwahati) on National Waterway-2. Subsequently, IWAI's terminals on NW-3 and NW-16 are also planned to be handed over for O&M to private players. Appointment of O&M operators will bring in necessary operations and marketing experience and contribute to increasing traffic on the IWT mode.

3. Policy for Development of Private Jetty/ Terminal: With the growth of IWT traffic on NWs, private entities have exhibited interest to build and operate private terminals on NWs. Allowing private entities to build, operate and manage the terminals will enable rapid development of terminal network on NWs. In view of the advantages associated with Private Sector participation in development of terminals on NWs, IWAI has proposed to permit the Private Sector to develop their own jetties and operate them on commercial basis. Recently, IWAI has permitted RO-RO operations by private operators on NW-1 using their land on banks as landing points on temporary basis.

4. Facilitation of Cargo Transportation by the Local Community: IWT has been traditionally used by the local community for transportation of their produce and passengers. Facilitation of movement of goods on waterways and local level as part of the Arth Ganga vision will further enhance use of IWT.

5. Enhanced Regional Trade using IWT Mode – Trade between Bhutan and Bangladesh: Stone exporters from Bhutan have identified Inland waterways as an alternate mode of transportation considering the benefits associated with waterways mode, such as, lower transportation cost, larger shipment size compared to road, avoiding congestion on land routes etc.

Sagarmala

Maritime Sector in India has been the backbone of the country's trade and has grown manifold over the years. To harness the potential of India's 7,517 km long coastline, 14,500 km of potentially navigable waterways and strategic locations on key international maritime trade routes, the Government of India has embarked on the ambitious Sagarmala Programme, Sagarmala which aims to promote port-led development in the country, was approved by the Union Cabinet on 25th March 2015. The vision of Sagarmala is to reduce logistics cost for both domestic and EXIM cargo with minimal infrastructure investment. Studies under Sagarmala have identified opportunities for reducing overall logistics costs, thereby improving the overall efficiency of the economy and increasing competitiveness of exports.

As of December, 2021, 802 projects worth ₹. 5.54 Lakh crore have been identified for implementation by 2035 under the Sagarmala Programme. Out of which, 185

projects worth ₹. 94,788 crore have been completed and 211 projects worth ₹. 2.09 lakh crore are under implementation. In addition to the above, 406 projects worth ₹. 2.49 lakh crore are under various stages of development.

Under the budget head of Sagarmala, 124 projects worth ₹. 7,690 crore have been sanctioned with a contribution of ₹. 3,113 crore, funds to the tune of ₹. 1,545 crore already released by December, 2021.

In the year 2021, 19 projects with total investment of ₹. 8,862 crore have been completed. seven projects worth ₹. 6,280 crore were implemented by Central Ministries, 8 projects costing ₹. 2,543 crore were completed at Major ports and 4 projects amounting to ₹. 40 crore were executed by State Maritime Boards. Three projects focusing on Port Modernisation, 10 projects of port connectivity, 1 project of SEZ at JNPT and 5 projects under the pillar of coastal shipping and IWT are under progress.

Out of all completed projects, 7 projects worth ₹. 341.52 crore have been supported financially to the tune of ₹. 84.86 crore under the Sagarmala scheme. Major projects that were completed in 2021 include widening of Korampallam bridge at VoC Port, 2nd railway line from Durgachak to Haldia Dock Complex, Coastal berth at JNPT, Mechanisation of EQ1-EQ2 and EQ3 on BOT basis at Paradip Port, Special Economic Zone (SEZ) at JNPT, RORO jetties at Bhayander, Malvan, Belapur and Narangi in Maharashtra for promotion of RORO and passenger services etc.

MAJOR PORTS

Major ports are under the jurisdiction of the Government of India and are governed by the Major Port Trust Act, 2013, except Kamarajar port (Ennore port), which is administered under the Companies Act, 2013.

There are twelve Major ports in the country, (6 on the Eastern Coast and 6 on the Western Coast) viz, Kolkata – Haldia, Paradip, Visakhapatnam, Chennai, Kamarajar (Ennore) and V.O.Chidambaram (formerly Tuticorin) on the East Coast and Cochin (in Kochi), New Mangalore, Mormugao, Jawaharlal Nehru, Mumbai and Kandla on the West Coast. Of these, Paradip, Visakhapatnam, Chennai, New Mangalore and Mormugao ports were the five leading iron ore handling ports having mechanical ore handling system.

The overseas and coastal cargo handled during 2020-21 by Major ports was of the order of 525.33 million tonnes and 147.35 million tonnes respectively. The Overseas Cargo traffic handled at Major Port recorded decline of 3.6% in 2020-21 as compared to 2019-20 and the Coastal cargo traffic declined by 7.8% in 2020-21. However, the total cargo traffic handled in 2020-21 decreased by 4.6% as compared to that of 2019-20. The

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Cargo traffic in terms of coastal and overseas categories at Major Ports during 2019- 20 & 2020-21 are furnished in Table 6.

Amongst the major ports, Deendayal Port (erstwhile Kandla port) accounted for the highest share of 17.5% in the total cargo traffic at all Major ports during 2020-21 followed by Paradip (17.0%), Vishakhapatnam (10.4%), Mumbai (9.6%), J.L. Nehru (7.9%), SMP (Haldia Dock Complex) (6.8%), Kamarajar Port (6.5%), NMPT (5.4%) and V.O. Chidambaranar Port & Cochin Port (4.7%). The cargo traffic at Chennai Port, Mormugao Port, and SMP Kolkata Dock System (KDS) had a share of less than 4% each during the same period of 2020-21. The Cargo traffic at all the ports was overwhelmingly outward oriented with overseas cargo accounting for the larger share in the total cargo handled at the port. Port-wise analysis of the traffic growth indicates that Mormugao recorded highest growth of 37.4% during 2020-21 followed by Paradip (1.6%). Other Major ports

Table - 6 : Traffic Handled (cargo) at Major Ports 2019-20 & 2020-21

(In million tonnes)			
Sl. No.	Ports	2019-20	2020-21
1A.	Kolkata	17.30	15.90
1B.	Haldia	46.68	45.47
2.	Paradip	112.69	114.55
3.	Visakhapatnam	72.72	69.84
4.	Ennore (Kamarajar)	46.76	43.55
5.	Chennai	31.75	25.89
6.	V.O. Chidambaranar (formerly Tuticorin)	36.08	31.79
7.	Cochin	34.04	31.50
8.	New Mangalore	39.15	36.50
9.	Mormugao	16.01	21.99
10.	Mumbai	68.45	64.81
11.	JNPT	60.70	53.32
12.	Deendayal (kandla)	122.61	117.57
Total		704.92	672.68

Figures rounded off

Source: Basic Port Statistics of India, 2020-21.

like Chennai recorded highest negative growth (18.4%) followed by JNPT (12.1%), V.O. Chidambaranar Port (11.9%), SMP (KDS) (8.1%), Cochin Port (7.5%), Kamarajar Port (6.9%), NMPT (6.8%), Mumbai (5.3%), Deendayal Port (4.1%), Vishakhapatnam Port (4.0%) and SMP Haldia (2.6%) respectively. Commodity-wise break-up of traffic handled at the Major ports in India during 2018-19 & 2020-21 is furnished in Table - 7.

Table - 7 : Commodity-wise Cargo Traffic Handled at Major Ports

(In million tonnes)			
Sl.No.	Commodity	2019-20	2020-21
1.	P.O.L (Crude & Products)	221.64	191.06
3.	Fertilizer	9.53	10.38
4.	Fertilizer Raw material	6.6	7.57
2.	Iron ore	55.46	64.33
5.	Coal*	118.88	102.93
6.	Food grain	0.4	1.56
7.	Other/cargo	292.42	294.86
Total		704.93	672.68

Source: Basic Port Statistics of India, 2020-21.

* Thermal Coal & coking coal

Cargo Handling Capacity and Cargo Handled

Cargo handling capacity at Major ports has also risen with traffic. Over the years, cargo handling capacity of Major ports has steadily increased to cater to the growing volume of internal and external trade. The capacity of the ports which was 172.59 million tonnes at the end of 1993-94 increased to a level of 1,514.1 million tonnes at the end of 2018-19 and further increased to 1,534.91 million tonnes during 2020-21. The capacity addition and the productivity improvements achieved by the Major ports coupled with growing participation of Private Sector in cargo handling have had a favourable impact on efficiency of cargo handling operations at India's Major ports. The capacity utilisation which was 91.0 % in 2009-10, reduced to 45.9% in 2019-20. The port-wise capacity and capacity utilisation for the year 2020-21 is provided in Table - 8.

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Table - 8 : Major-Port-wise Capacity Utilisation during 2020-21

(In million tonnes)

Name of the Port	Capacity	Capacity Utilisation (%)
SMP Kolkata Dock System	31.57	50.36
SMP Haldia Dock Complex	51.00	89.15
Paradip	249.00	46.00
Visakhapatnam	134.18	52.05
Kamarajar	91.00	28.45
Chennai	135.00	32.26
V.O.Chidambaranar	111.46	28.52
Cochin	78.60	40.08
New Mangalore	104.73	34.85
Mormugao	63.40	34.68
J.L. Nehru	138.87	46.67
Mumbai	79.00	67.50
Deendayal	267.10	44.02
ALL PORTS	1534.91	43.83

Source: Basic Port Statistics of India, 2020-21.

**PORT-WISE REVIEW OF
MAJOR PORTS**

**Syama Prasad Mookerjee Port, Kolkata
(SMPK)**

SMPK is the only riverine major port in India having an existence of 150 years. It has a vast hinterland comprising the entire Eastern India including West Bengal, Bihar, Jharkhand, Uttar Pardesh, Madhya Pardesh, Assam, North East Hill States and the two land locked neighbouring countries namely, Nepal and Bhutan. The port has twin dock systems viz. Kolkata dock System (KDS) on the eastern bank and Haldia Dock Complex (HDC) on the western bank of River Hooghly. SMP, Kolkata, handled 61.368 million metric tonnes (MMT) of cargo traffic during 2020-21 as compare to 63.983 MMT during 2019-20, registering a nominal decline of 4.09%, despite the outbreak of Pandemic COVID-19 and that catastrophic effect of J.L. Nehru (7.9%), ‘Amphan’ cyclone that caused widespread damage in the eastern coast region in May 2020. SMPK ranked 5th in traffic handling in 2020-21, among other Major Ports of India.

SMPK is the first Major Port to adopt ROIP System (Radio over Internet Protocol) as Effective Long Range Marine communication, covering the River Hooghly estuary [with 4 base stations at Kolkata, Hooghly Point, Haldia & Sagar Pilot Station] from Kolkata to Sandheads. This system was inaugurated on 25.10.2021. Vessels at Sandheads can directly communicate via Radio, especially during storms and inclement weather.

Paradip Port:

Paradip Port is one of the Major ports in India. Government of India took over the management of the port from the State Government on 1st June, 1965, and declared Paradip Port as the eighth Major port in India on 18th April, 1966 making it the first Major port in the East Coast commissioned in independent India. Paradip Port is situated 210 nautical miles south of Kolkata and 260 nautical miles north of Visakhapatnam. The Port handled 114.55 MMT of traffic in 2020-21. The port has Seventeen berths/jetties + Three (3) SPMs& One (1) Ro-Ro Jetty) for handling different types of cargoes with an effective Rated capacity of 302 MTPA and Desired capacity of 182.25 MTPA. Presently, Paradip port is the 2nd largest cargo handling Major Port in India. The port has been clocking over 100 MMT

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of cargo volume handling in a financial year since last 4 years. The highest number of 2,051 vessels were handled at the port during 2020-21, which is 38 more than the vessels handled during 2019-20. The highest number of 14,371 railway rakes were handled during 2020-21 as compared to 13,216 rakes in 2019-2020, i.e., an increase of 8.73%. The port handled the highest ever Average Rakes per day, i.e., 51.82 of in February, 2021— wherein, the Average of Incoming & Outgoing Rakes were 29.93 & 21.89 respectively.

New Mangalore Port

New Mangalore Port was declared as the 9th Major Port on 4th May 1974 and was formally inaugurated on 11th January 1975. The Port has 16 berths and 1 SPM (Single Point Mooring) with a rated capacity of 112.51 MTPA. It handled traffic of 27.455 MMT (Provisional) during the year 2021 - 22 (up to December 2021). NMPT has plans for development of one more deep draft multipurpose general cargo berth (Berth No.17) adjacent to the existing Berth No.8 for handling general break bulk cargo and Ro-Ro consignments.

The highest parcel size of 1,13,642 MT of steam coal handled at B.16 for Mangalore Coal Terminal Pvt. Ltd (JSW) was from vessel GREAT QIN which berthed on 10-5-2021. This is the highest parcel ever handled at the berths of the port surpassing the earlier record of 1,07,102 MT handled in April 2013.

During May 2021 the port handled 5 Naval vessels carrying 370 MT of Liquid Medical Oxygen in containers as donation from Kingdom of Bahrain/ Kuwait and Indian Community from Kuwait to Indian Red Cross Society under Operation Samudrasetu-II launched by Indian Navy

The port handled the first bulk import of Ammonium Sulphate for MCF from the vessel Majestic Maria which called at the Port on 8-8-2021(11,000 tonnes). Further the port handled new chemical cargo – 2 Ethylhexyl Acrylic for IMC from vessel Ginger Hawk on 27-7-2021. Container vessel Mogral, a new CCG service commenced operation on 14-8- 2021— this service will cover East Coast (Mundra-Mangalore-Cochin-Colombo-Chennai-Vizag-Krishnapatnam-Katupalli-Colombo-Cochin-Mundra).

Cochin Port

The modern Port of Cochin was developed during the period 1920-1940 due to the untiring efforts of Sir Robert Bristow. The port of Cochin is located on the Wellington Island at Latitude 9°58" North and 76°14' East on the South-West coast of India about 930 km south of Mumbai and 320 km North of Kanyakumari. With its strategic location on the South-West Coast of India and at a commanding position at the cross roads of the

East-West Ocean trade, the port is a natural gateway to the vast industrial and agricultural produce markets of the South-West India. The hinterland of the Port includes the whole of Kerala State and parts of Tamil Nadu and Karnataka States. A study carried out on the traffic flow in the hinterland of the Port indicates that about 97% of the total volume of traffic is accounted for by Kerala State. Cochin with its proximity to the international sea route between Europe and the Far East and Australia can attract a large number of container lines offering immense business opportunities.

Cochin Port has 21 Berths including 1 SPM with an effective rated capacity of 73.67 MTPA. The Port handled 31.50 MMT cargo traffic during 2020-21. The cargo handled by the port includes POL, Cement, Fertilizers, Fertilizer Raw Material (Dry) and others.

Cochin Port registered the total throughput of 25.24 MMT in 2021-22 (April-December, 2021), an increase of 17.99% over the same period of 2020- 21. POL throughput registered 15.15 MMT, an increase of 22.47% over the corresponding period of 2020-21. Containers that led the recovery trend over the past few months reached the throughput of 5.55 lakh TEUs in 2021-22 (April-December), registering the growth of 16.11% over the corresponding period of 2020-21.

Kochi-Mangaluru natural Gas Pipeline was dedicated to Nation by Hon'ble Prime Minister at GAIL Terminal on 05.01.2021.

Hon'ble Prime Minister of India inaugurated "Sagarika" International Cruise Terminal, Jetty for Ro-Ro vessels of IWAI & laid foundation stone for reconstruction of South Coal Berth (SCB) at Wellington Island on 14.02.2021.

Jawaharlal Nehru Port

Constructed in the mid 1980's and commissioned on 26th May, 1989, Jawaharlal Nehru Port has come a long way by becoming a world-class international container handling port. It is situated in between 18°56'43" North and 72°56'24" East along the eastern shore of Mumbai harbour off Elephanta Island.

Jawaharlal Nehru Port is an all-weather tidal Port having 16 berths with an effective rated capacity of 118.00 MTPA. The Port handled a Traffic of 56.07 MMT during 2021-22 (upto December, 2021) of which containers cargo account for 51.01 MMT which is 90.98% of total traffic. The port has 5 fully automated Container Terminals with a total container handling capacity of 7.7 Million TEUs, a Liquid Terminal of 7.2 MMT capacity and a shallow water berth having capacity of 4.5 MMT for handling container, break bulk, dry bulk and liquid cargo. Four of the Container Terminals are operating in PPP format in partnership with major global terminal operators, namely, DP World

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(2 terminals), AP Moler Terminals (APM terminals) and Port of Singapore Authority (PSA). A new Container Terminal, Bharat Mumbai Container Terminal Pvt. Ltd (BMCTPL), SPV of Port of Singapore (PSA) with a total capacity of 60 MMT (4.8 million TEUs) was commissioned for operations under Phase -I (2.4 million TEUs) on 18th February 2018. Phase-II (2.4 million TEUs) is expected to start in 2025. During the calendar year 2021 (Jan.–Dec., 2021), JN Port handled a total traffic of 76.14 MMT (22.17% growth) and container traffic of 5.63 million TEUs (25.86% growth)—highest ever traffic handled in a year since inception of the port. Nhava Sheva International Gateway Terminal (NSIGT) and thenewly commissioned BMCT for the first time crossed 1 million TEUs mark in a year (12 months period). NSIGT handled 1.17 Million TEUs (1,166,019) and BMCT handled 1.17 Million TEUs (1,170,502) during calendar year 2021.

In order to give momentum to coastal shipping, JNPT has constructed the 250 m long Coastal Berth with backup area reclamation of 11 hectares. JN Port commenced the handling of dwarf containers from September, 2021. The first lot of 20 laden Dwarf containers with import cargo transfer from ISO container handled in the Dwarf Container Depot was moved by train to ICD Kanpur which was virtually inaugurated by the Hon'ble Union Minister of Ports, Shipping, Waterways & Ayush. The cargo moved in the first lot of 20 dwarf containers consisting of PVC Resin suspension (Grade TC 1000) imported from Japan by M/s Supreme Industries.

Mumbai Port

Mumbai Port is the second oldest Major Port in India after Kolkata. The port has long been the principal gateway of India. Strategic location is one factor in its special favour. It lies midway along the West Coast of India and is gifted with a natural deep-water harbour of 400 sq. km. protected by mainland of Konkan on its east and island of Mumbai on its west. The deep waters in the harbour provide secure and ample shelter for shipping throughout the year.

Originally a general cargo port, today Mumbai Port is multi-purpose port handling all types of cargo viz break bulk, dry bulk, liquid bulk and containers. The port has extensive wet and dry dock accommodation to meet the normal needs of ships using the port. The port provides services/ facilities from pilotage to berthing, storage to delivery of cargo and ancillary services of running Container Freight Station (CFS), Port Railways as also maintenance of crafts, equipment and building. The port has 32 berths (including OCT) with an effective rated capacity of 82.85 MTPA. The

port handled traffic of 44.32 MMT during 2021-22 (up to December, 2021). The major cargo commodity handled is POL (61.32% of the total traffic).

Financial Year 2020-21, was the year of the “COVID-19” Pandemic that affected the entire EXIM trade globally. Despite the pandemic, Mumbai Port Trust acquitted itself creditably by handling 53.32 MMT cargo.

During the lock down, in spite of non-availability of sufficient staff, Mumbai Port continued to handle a large range of cargo, such as, steel, sugar, pulses, fertilizers, cement, calcite chips, lube/base oil, bitumen, motor vehicles, crude oil, POL products and chemicals at its berths in Indira Dock, Marine Oil Terminal-Jawahar Dweep, Chemical Terminal – Pir Pau and Mid-stream. The cargo operation in the docks was carried out, despite bare minimum labour due to lockdown and by hiring private labour by arranging bus services for essential staff. This was done by scrupulously following the instructions from the Central and State Governments in relation to the lockdown, following COVID protocols meticulously and with precautionary measures to curb the spread of COVID-19.

At Jawahar Dweep Oil Terminal, there are 4 existing berths. For handling large crude oil vessels, the project of constructing new berth Jawahar Dweep-5 (JD-5) was taken up and completed in December 2020. First vessel “Ice Transporter” berthed on 30.1.2021. A total of 27 tankers were handled till 31st March 2021. The vessel “Barbarosa” which berthed on 29th March 2021 with the largest parcel size of 1,42,236 tonnes of Crude Oil was discharged in just 35 hours.

At the 8th International Samudra Manthan Awards 2021, held on 16.12.2021, Mumbai Port was awarded Terminal of the year (Non-specific) for its Car Terminal.

Kamarajar Port Limited (Ennore)

Kamarajar Port Limited (KPL), the 12th Major Port under the Ministry was commissioned in 2001, primarily as a Coal Port dedicated to handling Thermal Coal requirements of Tamil Nadu Electricity Board (TNEB). Over the years, the port, which was primarily handling coal at initial stage, has developed as a multi cargo port and now has seven berths with handling capacity of 54.44 MTPA for handling coal, POL, LPG, LNG, automobile units, Containers and general cargoes. The Port handled traffic of 27.995 MMT during 2020-21 (up to December 2021) KPL handled the largest Cape size Coal vessel at Common User Coal Terminal operated by M/s Ennore Coal Terminal Pvt. Ltd on 12.06.2021. The vessel, Emperor Pampero with a parcel size of 1,37,989 MT of Steam Coal imported from Australia for M/s. OPG Power Generation Pvt. Ltd was handled of the port. The

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highest DWT 1,82,567 MT vessel with a draft of 15 m and the length & beam of 292 m & 45m respectively with the ofore mentioned parcel size the highest ever was handled at this terminal. The Mobile X-Ray Container Scanner system installed at Kamarajar Port was commissioned on 01.07.2021. The Mobile X-Ray Container Scanner system is operated by the Container Scanner division of Chennai Customs. The Principal Commissioner of Customs, Chennai-III, has issued a Public Notice No. 43/2021-22 dated 30.06.2021 regarding the commencement of regular operations of Mobile X-Ray Container Scanner (MXCS) system at Kamarajar Port with effect from 30.06.2021. Director General of Foreign Trade (DGFT) vide its Public Notice No. 15/2015-2020 dated 20.07.2021 has issued a notification enlisting Kamarajar Port as the 18th Port for import of un-shredded metallic scrap consequent to the installation and operationalisation of Mobile X-Ray Container Scanner system and Radiation Portal Monitors. Container Shipping Line M/s Maersk Line India operating at Kamarajar Port has upgraded their existing Container weekly services viz. (i) Shuttle service to ME7 service (directly connecting to Europe) and (ii) Chennai Express service to FI4 service (connecting Southeast Asia with India and Pakistan) with effect from 03.08.2021 and 13.08.2021 respectively. Kamarajar Port handled the highest Container volume of 4,958 TEU's in the vessel Santa Rita berthed at Container Terminal on 24.08.2021. Kamarajar Port handled the largest Gypsum vessel at Multi Cargo Terminal operated by M/s Ennore Bulk Terminal Pvt. Ltd. on 02.09.2021. The vessel Birte Oldendorff (DWT 1,13,921 MT, length 250M and beam 43M) with parcel size of 1,05,215 MT of gypsum imported from Oman for M/s Saint Gobain India Pvt Ltd and M/s Eastern Bulk Trading & Shipping Pvt Ltd arrived with a draft of 14.50 m. Kamarajar Port handled the highest Container volume of 46,513 TEUs in December 2021. Kamarajar Port has awarded the work of Construction of Automobile Export/ Import Terminal - II to M/s L & T Geostucture Pvt. Ltd Chennai on 12.11.2021 for an amount of ₹.149.36 crore. (excl. GST).

Chennai Port

Chennai Port is an all weather artificial harbour with one Outer Harbour and one Inner Harbour with a wet Dock and a Boat Basin with round the clock navigation facilities. The Port was established in 1875 located at 130 06' N latitude and 800 18' E-longitudes on the Bay of Bengal. Chennai Port handled a cargo tonnage of 43.55 MMT during 2020-2021. During 2021-22, tonnage handled up to December 2021 was 35.62 MMT which comprises of 21.80 MMT of Import and 13.82 MMT of exports. During 2020-2021, 1,386,926 TEUs of

containers were handled, whereas in the previous year 13,83,971 TEUs were handled. The Second Very Large Crude Carrier (VLCC) on account of Chennai Petroleum Corporation Ltd, M.T. Bright Pioneer, with a length of 333 M, Beam of 60 m and DWT of 3,00,000 MT was berthed at Bharathi Dock III on 09.04.2021 for discharge of Crude Oil. It may be noted that the Chennai Port was the 1st Major Port in India to berth a VLCC vessel at alongside berth, when it berthed M.T. New Diamond on 31.08.2018. Chennai Port recorded landmark single day performance of overall cargo handling of 3,12,549 tonnes on 30.04.2021 surpassing the previous record of 2,92,745 tonnes on 17.11.2008. Container Vessel CMA CGM BERLIOZ berthed at Chennai Port's second container Terminal M/s Chennai International Terminal Pvt. Ltd, on 19.05.2021 recorded landmark performance by handling Containers of 8,819 TEUS comprising of Import 4,645 TEUs and Export 4,174 TEUs and sailed on 22.05.2021. The above noteworthy achievement surpassing the previous record of 8,397 TEUS per vessel APL ENGLAND on 08.12.2020. Chennai Port recorded handling of 9,283 TEUs in a single day on 23.07.2021 surpassing the previous record handling of 9,064 TEUs on 30.04.2021. On 11th December 2021, Chennai Port created a new record by loading 38,079 tonnes of barytes on a single day at JD 4 from the vessel RB EDEN surpassing the earlier record of 35,671 tonnes of barytes at JD 4 from the vessel FYLA on 04.10.2021.

Mormugao Port

Mormugao Port, situated on the West Coast of India, is more than 135 year old port. It has modern infrastructure capable of handling a wide variety of cargo. It is a natural harbour protected by a breakwater and also by a mole. The Port has an approach channel of depth 14.4 meters. The existing rail and road connectivity provides seamless logistic network to the rest of the Country. There is a modern Vessel Traffic Management System installed for providing reliable modern services. The existing VTMS system is being replaced with new System. The Mormugao Port has 3. non-cargo berths and 7. cargo berths, in addition 3. Mooring Dolphins for handling cargoes. The effective rated capacity of the port is 62.50 MTPA. There is a dedicated cruise berth of 450 m length alongside of Breakwater for Cruise vessels and for use of Navy and Coast Guard. The port handled traffic of 13.42 MMT during 2021-22 (up to December, 2021). The project relating to Redevelopment of Berth no. 9 and three Jetties for handling of dry bulk cargo with mechanised system on PPP basis is in process. Shri Sarbananda Sonowal, Hon'ble Union Minister, of Ports, Shipping and Waterways (MoPSW) along with Shri Shripad Naik, Hon'ble Union Minister of State for Ports, Shipping &

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Waterways and Tourism, visited Mormugao Port on 11th December, 2021 and in the presence Shri Rajiv Jalota, IAS, Chairman – MPT and Shri Guruprasad Rai, Dy. Chairman – MPT inaugurated The “River Cruise Services”, operated by M/s Vijai Marine Services Pvt. Ltd at Mormugao Port, which is first in South Goa. In order to contain dust pollution due to handling of dusty cargo, Port has commissioned two. Automatic Truck Wheel Washing units at a cost of ₹. 38,56,761/-. Thus this initiative will curb the air pollution caused due to continuous movement of trucks.

V.O. Chidambaranar Port

V. O. Chidambaranar Port, the 10th Major Port of India is situated 540 kms. south-west of Chennai. As a gateway Port with 15 berths, drafts ranging from 8.60 metres to 14.20 metres is equipped to handle a wide spectrum of Containers— Dry, Liquid and Break bulk Cargoes.

Aided by the state-of-the-art infrastructure, dedicated terminal operators, Port user community and efficient human resource, the Port which is in close proximity to the Mainline sea route and excellent rail & road connectivity has been the harbinger of socio-economic development of the southern Tamil Nadu region. V.O. Chidambaranar Port is located strategically close to the East-West International sea routes on the South-eastern coast of India at latitude 80 45'N and longitude 780 13'E located in the Gulf of Mannar, with Sri Lanka on the South-east and the large land mass of India on the West. The port is well sheltered from the fury of storms and cyclonic winds and is operational round-the-clock all through the year. The Port has 15 berths with an effective rated and re-rated capacity of 95.00 MMTPA and 69.30 MMTPA. It handled traffic of 26.06 MT during the year 2021- 22 (up to December, 2021). On 14.05.2021, V.O. Chidambaranar Port created a new record for handling a coal vessel with highest parcel size. The Panama flagged vessel ‘MV BASTIONS’ arrived from the Port of Muara Berau, Indonesia, with 92,935 tonnes of coal consigned for Tamil Nadu Newsprint and Papers Ltd, bettering the previous handling of highest parcel size for vessel ‘MV Star Sirius’, with 92,028 tonnes of coal handled at the port on 11.04.2021. On 10.06.2021, the port handled a single export consignment of 24 windmill blades of length 77.50 metres, the longest of its kind handled through VOC Port. The vessel PAC ALCOR with length overall (LOA) of 199.9 metres, was berthed at the port on 10.06.2021 and the loading of the 77.50 metres long wind blades were carried out diligently, using Ship’s Hydraulic cranes and Harbour Mobile Cranes of the Port. The Windmill blades were safely transported using specialised wind blade and tower transportation flat bed trucks all the

way from Sriperumbudur to Thoothukud. The long wind blades were stacked three high, conforming to the safety standards and the vessel sailed from the Port on 13th June 2021 for the Port of Aransas, USA. On 29.08.2021, the Port created a new record for handling a vessel with highest parcel size of 93,719 tonnes (Limestone), bettering the previous record of handling the vessel with highest parcel size of 92,935 tonnes, (Coal) by the vessel Bastions on 14.05.2021.

Deendayal Port (Kandla)

Deendayal Port (erstwhile Kandla Port) was established in the year 1950 as a Central Government Project, Subsequently the Union Government took over Kandla for its development as a Major Port. Kandla Port has 34 berths including SPM, Oil Jetties and Dry Cargo with an optimum-rated capacity of 261.10 MTPA. The Port handled 96.51 MMT of traffic during 2021-22 (up to December, 2021). The Cargo handled comprises POL, Iron Ore, Fertilizers, Coal (Thermal/coking) etc.

Port retains Numero Uno position for handling 117.57 MMT cargo during 2020-21. The port won the “India Maritime Award” under “Best Major Port of the Year Award— Non-Containerised category” organised by Daily Shipping Times. On 07th July’ 2021, the Union Minister for Health & Family Welfare, Chemicals & Fertilizers virtually inaugurated Oxygen Plant, set up by the port at Rambaug Hospital Adipur. On 11th August’ 2021, the Quality Mark Award (10th Edition) was organised at Ahmedabad, where Deendayal Port, the No. 1 Major Port of India, has been recognised and honoured as “Pioneer Industry in Maritime Services” for its outstanding cargo handling of 117.57 MMT during the Year 2020-21.

Visakhapatnam Port

The Port of Visakhapatnam, located almost midway between Kolkata and Chennai on the East Coast of India at latitude 17041’ and longitude 83017’ was opened to ocean traffic on 7th October, 1933 and has been serving a vast hinterland since then. The capacity of the port as on 31.12.2021 was 126.89 MMT. The port has a total of 27 berths and one SPM for cargo handling. The inner harbour has 21 berths and the outer harbour has 6 berths and one SPM. The inner harbour can accommodate fully laden Panamax vessels of draft up to 14.5 meters and the outer harbour can accommodate vessels of 2,00,000 DWT with a draft up to 18.10 meters. port of Visakhapatnam has the distinction of possessing Supercapex handling facility and the deepest Container terminal among Major Ports of India. The Port handled 50.91 MMT of traffic during 2021-22 (up to December 2021). MoU signed during the month of May 2021 with M/s HPCL (exclusive Capital user) for up-gradation of

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Fire Fighting system at OSTT berth was commissioned at a cost of ₹.37 crore. On 26th June, 2021, the Hon'ble Vice-President of India visited Visakhapatnam Port and reviewed the Port activities by having an interaction session with Chairman and other officials. The Hon'ble Vice-President of India appreciated the fact of operating the entire port activities with Solar Energy. The Hon'ble Minister for port, Shipping & Waterways inaugurated "Grade Separator from H-7 to Convent Junction". A supplementary agreement was reached on 29th October 2021 between M/s VGCBPL and port for utilisation of the facility for other compatible cargoes by the port when the VGCBPL berth is free from handling operations as obligated under the main agreement.

SHIPPING

Shipping plays an important role in the economic development of the country, especially in India's international trade. The Indian Shipping Industry also plays an important role in the energy security of the country as energy resources, such as, coal, crude oil and natural gas are mainly transported by ships. Further, during a crisis situation, Indian shipping contributes to ensure uninterrupted supply of essentials and serves as the second line of defense. The salient features of India's shipping policy are the promotion of national shipping to increase self-reliance in the carriage of country's overseas trade and protection of stakeholder's interest in EXIM trade. India's national flagships provide an essential means of transport for crude oil and petroleum product imports. The national shipping also contributes to the foreign exchange earnings of the country. India has been a founder member of the International Maritime Organisation (IMO), a specialised agency set up under the United Nations, primarily dealing with the technical aspects of shipping relating to Maritime Safety, Protection of Marine Environment, Standards of Training and related legal matters. India has been participating in various meetings of the IMO Committees, Sub-committees, Council and Assembly and has actively contributed towards the development of various Conventions, Protocols, Codes and Guidelines developed by the IMO. To promote Indian tonnage and to save precious foreign exchange, the Cabinet on December 10, 1957 had decided that in all negotiations for large contracts involving shipping arrangements by Central Government Departments, State Government Departments and Public Sector Undertakings (PSUs) under them, the Department of Transport would invariably be consulted and all such import contracts were to be finalized on FOB/FAS (Free on Board/Free Alongside Ship) basis and those for exports on C& F/ CIF (Cost and Freight/ Cost, Insurance and Freight)

basis and in case of departure from the norm, prior permission was required to be obtained from Department of Transport on a case-to-case basis. In the changed context of economic liberalisation and new thrust on competitiveness and performance improvement of PSUs, the Government on November 15, 2001 decided that while the existing policy for placing import contracts on FOB/FAS basis will continue, the policy was relaxed in the case of exports. Government Departments/ PSUs were permitted to finalise export contracts on FOB/FAS basis without seeking prior clearance from the Ministry. The emerging sectors, where there is a potential for enhancing trade (exports and imports), need to be focused upon and ways to open up sea routes on these sectors need to be considered. Some examples are the International North- South Transport Corridor (INSTC) route, which would considerably shorten the distance from India to Commonwealth of Independent States (CIS) through Iranian ports; the routes to South East Asian countries, which still have the scope for development, like Thailand, Vietnam etc., akin to the sea routes which were opened up for Bangladesh and Myanmar (as part of Act East Policy of the Government). Over the years, India's overseas trade expanded considerably both in terms of composition and direction due to the policy of export promotion pursued by the Government. At the same time, efforts were made to provide and improve the trade related infrastructure, especially transport, to facilitate the movement of traffic more efficiently. So far as the movement of traffic by ships to overseas destinations was concerned, both Indian as well as foreign flag ships operating consortium liner shipping services have been providing the services either directly or through transshipment arrangements for the general cargo in break-bulk or containerised form. Similarly, for bulk cargo moving either as imports or exports, the services of transships, both Indian and foreign, usually engaged on chartering basis, are available to all the destinations. Improvement index port related infrastructure has been a consistent endeavour to promote exports. Inadequacies in seamless transport through road, rail, ports and airports are obstacles faced in the infrastructure development for promoting exports. However, it is a fact that in the Transport Sector, most of the funding in our country has been towards the railways, road and highways sectors. While the importance of roads and railways in the economy is undeniable, there is also a greater need to encourage the Maritime Sector to enable it to achieve its full potential. Thus, there is a strong case for supporting waterway transportation.

NON-MAJOR PORTS

There are 212 non-major ports situated along the peninsula coast-line and sea-islands. These ports are located in Gujarat (48), Maharashtra (48), Goa (5), Daman & Diu (2), Karnataka (12), Kerala (17), Lakshadweep (10), Tamil Nadu (15), Puducherry (3), Andhra Pradesh (13), Orissa (14), West Bengal (1) and Andaman & Nicobar Islands (24). Out of these 212 Non-major ports, only some ports are well developed and provide all-weather berthing facilities for cargo handling. In 2020-21, 68 Non-major Ports were reported to have handled cargo traffic. Recognising the importance of Non-major ports, maritime states have launched initiatives for their development, through the participation of Private Sector. This has led to significant growth in the cargo traffic handled by the non-major ports in the past few years. Non-major ports in India collectively handled 577.31 million tonnes of traffic during the year 2020-21 as compared to 615.05 million tonnes of cargo handled in 2019-20. The cargo handled at Indian ports declined by 6.1% in 2020-21 as compared to 5.6% growth registered in 2019-20. At a disaggregated level, the overseas cargo traffic decreased by 4.7% in 2020-21 as compared to the growth of 7.2% recorded in 2019-20. Coastal cargo traffic decreased by 14.1% in 2020-21 compared to an decrease of 2.4 % in 2019-20. Commodity composition of traffic handled by Non-major ports during the year 2019-20 and 2020-21 is furnished in Table-9.

Table 9: Traffic Handled at Non-major Ports 2019-20 and 2020-21

Commodity	(In Million Tonnes)	
	2019-20	2020-21
POL & its Products	197.16	157.63
Iron Ore	39.97	42.99
Building Material	15	13.89
Coal*	178.52	153.84
Fertiliser & FRM	15.96	13.41
Others	168.43	195.55
Total	615.05	577.3

Source: Basic Port Statistics 2020-21

Note: Figures in parenthesis indicate growth over the previous year.

*Thermal Coal & Coking Coal

POL & its products (27.3%) was the single largest commodity handled at Non-major ports in 2020-21. The share of POL has decreased from 32.1% in 2019-20 to 27.30% in 2020-21. During 2020-21, the share of other cargo in the total traffic was 33.9% followed by coal (26.7%), Iron ore (7.5%), building material (2.4%) and fertilizer & FRM (2.3%).

MARITIME STATES – NON-MAJOR PORTS

Maritime State-wise traffic handled at Non-major ports in the recent years is reflected in Table 10.

GUJARAT

Gujarat is a principal maritime State with a natural coastline of about 1,215 km (16% of India's total coast line). The State has 48 Non-major ports which are under the jurisdiction of Gujarat Maritime Board (GMB) since April, 1982. Out of 48 Non-major ports, traffic is handled at 18 Non-major ports. The remaining 30 Non-major ports are used for fishing activities and have negligible traffic. Gujarat has the advantage of a vast hinterland covering the Northern and Central Indian States and as a result, there is high demand for the services offered by the Non-major ports in Gujarat. The participation of the Private Sector has been a significant contributing factor in the development of Non-major ports in Gujarat. The total cargo traffic handled at the Non-major ports of Gujarat during 2020-21 was of the order of 387.57 million tonnes as against 411.79 million tonnes in 2019-20, reflecting a decrease of 5.9% as compared to an increase of 3.2% in 2019-20. Non-major ports of Gujarat account for around 67.1% of the total cargo handled by Non-major ports in India during 2020-21. Overseas traffic in 2020-21 was 348.06 million tonnes with the remaining 39.51 million tonnes being coastal traffic. GAPL port handled the highest cargo tonnage of 137.65 million tonnes (35.5%) of the total cargo handled by non-major ports in Gujarat in 2020-21. Main commodities handled by GAPL port is Container cargo that contributes to 54.7 % of the traffic handled at the port. Sikka Port handled the cargo tonnage of 121.42 million tonnes in 2020-21 as compared to 134.14 million tonnes handled in 2019-20. This port accounted for 31.3% of the total cargo handled by the non-major ports in Gujarat in 2020-21, and has witnessed increase in the cargo traffic ever since the commissioning of Gujarat Adani Port Ltd facility. Main commodities handled by GAPL port are Container, Coal and POL & its products. Dahej port accounted for 29.52 million tonnes (7.6%) of the cargo traffic in 2020-21. Major commodities handled by the port are coal & Iron ore. Magdalla Port handled 28.7 million tonnes of cargo in 2020-21 with a share of

PORT FACILITIES

7.4% in total traffic. Major commodities handled by the port are 'POL & its products'. The important ports which showed increase in the cargo handled during 2020-21 were Bedi and GAPL; while Sikka, Magdalla, Jafarabad, Bedi, Mul-Dwarka, GAPL, Dahej and Pipavav ports witnessed a decrease in cargo traffic in 2020-21.

ANDHRA PRADESH

Andhra Pradesh is another important maritime State with a coast line of around 975 km. There are 13 Non-major ports in Andhra Pradesh, of these, 5 ports normally handled cargo traffic and these are: Rawa, Kakinada Anchorage, Kakinada Deep Water Port, Gangavaram and Krishnapatnam. The State share in the total traffic handled by all Non-major ports in the country during 2020-21 was 15.5%. Non-major ports in Andhra Pradesh collectively handled 89.64 million tonnes of cargo during 2020-21 as compared with 99.90 million tonnes in 2019-20, registering a decline of 10.3% in traffic. The overseas traffic during 2020-21 was 77.64 million tonnes (86.6%) of the total cargo traffic in Non-major ports of Andhra Pradesh and coastal traffic was of the order of 12.0 million tonnes (13.4%) of total cargo traffic. Commodity-wise analysis of the total cargo handled by the non-major ports in Andhra Pradesh indicates that Coal (51.9%), Other Cargo (34.5%), Iron ore (8.6%), Fertilizer & FRM (2.6%) and Building material (0.9%) were the principal items of cargo handled during 2020-21 by the Non-major Ports of Andhra Pradesh.

MAHARASHTRA

Maharashtra has a coast line of around 653 km with 48 notified Non-major ports. Out of these only 16 ports handled cargo traffic during 2020-21. The total cargo traffic handled at the Non-major ports of Maharashtra during 2020-21 was 39.84 million tonnes as compared to 43.66 million tonnes in 2019-20. This

shows a decline of 8.7%. Out of 39.84 million tonnes of total cargo handled by Non-major ports in Maharashtra, 21.02 million tonnes (52.8%) was overseas cargo and the remaining 18.84 million tonnes (47.2%) were coastal cargo. Overseas traffic declined by 9.9% to 21.02 million tonnes in 2020-21 from 23.35 million tonnes in 2019-20. Coastal traffic also decreased by 7.2% to 18.84 million tonnes from 20.31 million tonnes in 2019-20. Commodity-wise break-up of the cargo handled by the Non-major ports of Maharashtra indicated that Coal traffic of 18.99 million tonnes constituted (47.7%) of the total cargo handled in 2020-21 followed by Iron ore (23.94%), Other commodities (23.48%), Building Material (4.5%) and POL & Products (0.4%).

GOA

Goa has a coastline of about 118 km. There are 5 Non-major ports in Goa. Out of this only one port, Panaji handle cargo traffic. Panaji port handled cargo traffic of 0.04 million tonnes during 2020-21 as compared with 0.008 million tonnes handled in the previous year. Iron ore has been the principal commodity handled at the port, but due to ban on mining of Iron Ore, the cargo traffic at minor port of Goa had declined drastically after 2011-12. Handling of Coal decreased from 0.41 million tonnes in 2014-15 to zero during 2020-21.

KARNATAKA

Karnataka has a coastline of around 280 km. with 12 Non-major ports. Out of these, only 2 ports normally handled cargo traffic during 2020-21. Non-major ports in the State handled 0.79 million tonnes of cargo traffic during 2020-21 as compared to 0.94 million tonnes in 2019-20 reflecting a decrease of 16.0% over the previous year. The contribution of the Karwar Port was 0.75 million tonnes cargo which constitutes 95.5% of total cargo handled by Non-major ports in Karnataka in 2020-21.

Table 10 : State-wise Traffic Handled by Non-Major Ports

(In Million Tonnes)

State	2018-19	2019-20	2020-21
Gujarat	399.2	411.79	387.57
Maharashtra	45.79	43.66	39.84
AP	103.33	99.91	89.64
Tamil Nadu	0.96	11.37	7.41
Karnataka	1.04	0.94	0.79
Odisha	22.19	35.27	43.03
Others	10.11	12.12	9.03
Total	582.61	615.05	577.3

Source:- Basic Port Statistics 2020-21

Others includes Kerala, Andaman & Nicobar Islands, Puducherry, Goa & Lakshadweep.

TAMILNADU

Tamil Nadu has a coastline of around 906 km. The State has 15 Non-major ports, out of which only 6 ports handled cargo traffic. During 2020-21, the Non-major ports in Tamil Nadu collectively handled 7.41 million tonnes of cargo traffic as compared to 11.37 million tonnes in the previous year. Kattupalli port handled the maximum traffic of 7.05 million tonnes during 2020-21 accounting for 95.1% followed by Cuddalore port (0.26 million tonnes) accounting for 3.6% and Other Ports (0.10 million tonnes) accounted for 2.3% of the total traffic handled by all the Non-major ports in the State.

ODISHA

Odisha is the only State which recorded positive growth of 22% in the year 2020-21. Odisha has a coastline of 480 km from Andhra Pradesh border in Ganjam District to West Bengal border in Balasore District. It is endowed with conducive, unique, natural and strategic port locations. The Government of Odisha identified 14 potential sites for development of Minor Ports. The advantages for development of sea ports in Odisha include 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. The State has 14 non-major ports, out of which only 2 ports handled cargo traffic. During 2020-21 the Non-major ports in Odisha collectively handled 43.03 million tonnes of cargo traffic as compared to 35.27 million tonnes in the previous year showing an increase of 22%.

FUTURE OUTLOOK

The Logistics Sector is the backbone of any economy. Even at times of weak economic sentiments, the Industry will continue to witness growth. India is currently the prime logistics service provider globally. Besides other modes of transportation, maritime logistics is one sector that can grow tremendously unless it is fully explored.

Apart from this, India Maritime Sector is considered significant as it is strategically located on the world's shipping routes, having longest coastline of about 7,517 km. With 12 Major and 200+ Non-major ports, along with a vast network of navigable waterways, the scope of increasing the trade volume is enormous.

The Major Ports in India have been witnessing sustained growth in the last few years, due to the novel & progressive pathways pursued by Ministry of Shipping. Major fillip to the Port Sector by way of introducing vital and long overdue futuristic Port-led development programmes including Sagarmala has been emplaced. The Ministry has intended on upgrading and developing the Major Ports of India on par with the International Ports.

India's port facilities are in for a major overhaul as development of ports and augmentation of capacities are significant for economic vibrancy and growth.