

PORT FACILITIES



# Indian Minerals Yearbook 2022

(Part- I : GENERAL REVIEWS)

61<sup>th</sup> Edition

**PORT FACILITIES**

(ADVANCE RELEASE)

**GOVERNMENT OF INDIA  
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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 217 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) increased to 1,323.80 million tonnes in 2021-22 from 1,249.99 million tonnes in 2020-21 reflecting an increase of 5.9% during 2021-22. India's major ports handled around 54.4% of the cargo handled at Indian ports. The growth profile of cargo throughput at India's Major and Non-major ports in terms of their coastal and overseas trade during 2019-20 to 2021-22 is reflected in Table-2.

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

(As on 31.03.2022)

State/ U.T.	Number of Major Ports	Number of Non-Major Ports	Total Number of Ports
<b>WEST COAST</b>			
Gujarat	1	48	49
Maharashtra	2	48	50
Goa	1	5	6
Daman & Diu	-	2	2
Karnataka	1	13	14
Kerala	1	17	18
Lakshadweep Islands	-	10	10
<b>EAST COAST</b>			
Tamil Nadu	3	17	20
Puducherry	-	3	3
Andhra Pradesh	1	15	16
Odisha	1	14	15
West Bengal	1	1	2
Andaman & Nicobar Islands	-	24	24
<b>TOTAL</b>	<b>12</b>	<b>217</b>	<b>229</b>

Source: Basic Port Statistics of India, 2021-22.

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

Port	2019-20			2020-21			2021-22		
	OT	CT	TT	OT	CT	TT	OT	CT	TT
Major	2.32	-3.96	0.82	-3.64	-7.77	-4.57	4.45	16.27	7.04
Non-major	7.15	-2.44	5.57	-4.71	-14.06	-6.14	2.99	14.35	4.58
All Ports	4.63	-3.41	2.98	-4.16	-10.10	-5.30	3.74	15.59	5.90

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

Source: Basic Port Statistics of India, 2021-22..

## PORT FACILITIES

The period 2001-02 to 2021-22 saw compound annual growth rate (CAGR) of 6.4% in total cargo throughput at Indian ports. The compound annual growth in Cargo handled at Major ports and Non-major ports was 4.7% and 9.7% during 2001-02 to 2021-22. The growth in cargo handled by Major ports and Non-major ports during 2021-22 registered growth of 7.0% and 4.6% respectively. Commodity-wise traffic handled, in respect of

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

		(In million tonnes)		
Sl.No.	Commodity-wise Traffic	2019-20	2020-21	2021-22
1.	P.O.L (Crude & Products)	418.79	348.69	366.24
2.	Iron ore	95.65	107.32	94.69
3.	Building Material	15	13.89	12.70
4.	Coal	297.4	256.77	268.16
5.	Fertiliser raw material	32.11	31.36	29.97
6.	Other/cargo	461.01	491.96	552.05
<b>Total</b>		<b>1319.97</b>	<b>1249.99</b>	<b>1323.80</b>

*Source: Ministry of Shipping, Annual Report, 2021-22.*

**Table - 4 : State-wise Cargo Traffic at Indian Ports during 2021-22**

(In million tonnes)			
State	Major Ports	Non-major ports	Total
1. Gujarat	127.10	405.39	532.49
2. Maharashtra	135.89	52.47	188.36
3. Goa	18.46	0.03	18.48
4. Karnataka	39.30	0.79	40.08
5. Kerala	34.55	0.14	34.69
6. Tamil Nadu	121.43	7.84	129.27
7. Andhra Pradesh	69.03	87.98	157.01
8. Odisha	116.13	41.54	157.68
9. West Bengal	58.18	0.00	58.18
10. Others <sup>(a)</sup>	0.00	7.37	7.37
<b>11. Total</b>	<b>720.05</b>	<b>603.75</b>	<b>1323.80</b>

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

*Source: Ministry of Shipping, Annual Report, 2021-22.*

principal commodities, by all the ports (Major & Non-major) in India from the year 2019-20 to 2021-22 are presented in Table-3.

The commodity composition of the total traffic at Indian Ports has shown changes over the years. POL & its products continue to be the single largest commodity handled by the ports, constituting 27.7% of the total seaborne traffic followed by Coal (20.3%), Iron ore (7.2%) and FRM (2.3%) in 2021-22.

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 40.2% of the total cargo handled at Indian ports. It is also noteworthy that about 67% of the cargo handled by Non-major ports pertains to the State of Gujarat. In terms of total port traffic, Gujarat is followed by Maharashtra (14.2%), Andhra Pradesh & Odisha (11.9% each) and Tamil Nadu with share of 9.8% in India's total seaborne traffic. The twelve major ports in India handled about 54.4% of the maritime cargo traffic of the country in 2021-22. Traffic handled at the major ports has been increasing over the years in tandem with the economic activity and volume of trade turnover. The total traffic handled by the Major ports has recorded around 24 increase from 581.3 million tonnes in 2014-15 to 720.1 million tonnes in 2021-22.

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)
<b>Projects under Implementation: (As on 31.05.2020)</b>			
<b>Jawaharlal Nehru Port Trust (JNPT)</b>			
1.	Development of Container Terminals of 2,000 m length at JNPT (4 <sup>th</sup> Container terminal)	7915.00	60.00
<b>Kamarajar Port Ltd (Ennore)</b>			
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
<b>Deendayal Port Trust</b>			
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, Vadinar on captive-use basis	448.00	24.50
<b>Kolkata Port Trust</b>			
10.	Setting up of Liquid Cargo Handling Jetty at Shalukkhali, Haldia Dock -II	172.52	2.43
<b>Mormugao Port Trust</b>			
11.	Redevelopment of Berths 8, 9 and Barge Berths	1145.36	19.22
<b>New Mangalore Port Trust</b>			
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
<b>Paradip Port Trust</b>			
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
<b>Visakhapatnam Port Trust</b>			
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
<b>VOC Port Trust, Tuticorin</b>			
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
<b>Mumbai Port Trust</b>			
23.	Bunkering Terminal	50.00	2.00
<b>PPP &amp; Captive Projects under Operation</b>			
<b>Chennai Port Trust</b>			
1.	Container Terminal-1 M/s CCTPL	790.60	31.30
2.	Development of 2 <sup>nd</sup> Container Terminal (M/s CITPL)	783.32	29.50
<b>Cochin Port Trust</b>			
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
<b>JLN Port Trust</b>			
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)

PORT FACILITIES

(Table-5 contd)

Sl. No.	Projects/ Development	Estimated Cost (In ₹ crore)	Capacity (MMTPA)
<b>Kamarajar Port Ltd (Ennore)</b>			
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
<b>Deendayal Port Trust</b>			
16.	Development of 13 <sup>th</sup> Berth other than liquid and container cargo berth	188.87	1.50
17.	Development of 15 <sup>th</sup> 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
<b>Kolkata Port Trust</b>			
25.	Multipurpose Berth No. 12	35.00	1.12
26.	Multipurpose Berth No. 4A	150.00	2.00
<b>Mormugao Port Trust</b>			
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
<b>New Mangalore Port Trust</b>			
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
<b>Paradip Port Trust</b>			
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 <sup>nd</sup> SPM Captive Berth	746.17	11.00
40.	Construction of 3 <sup>rd</sup> SPM Captive Berth	746.17	11.00
41.	Development of South Oil Jetty (Captive)	222.29	10.00
<b>Visakhapatnam Port Trust</b>			
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
<b>VOC Port Trust, Tuticorin</b>			
50.	Development of 7 <sup>th</sup> 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 m<sup>3</sup> dredging in Tribeni – Rajmahal stretch and 1.62 lakh m<sup>3</sup> 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 14<sup>th</sup> 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 thalweg 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 26<sup>th</sup> March, 2016 (which came into effect from 12<sup>th</sup> 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 2<sup>nd</sup> 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

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on PPP basis for operation and maintenance. Similar exercise is in progress for IWAI's terminals at Gaighat (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 in tune of ₹ 1,545 crore were already released by December, 2021.

In 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 were completed at Major ports and 4 projects amounting to ₹ 40 crore were executed by State Maritime Boards. Three projects focussing on Port Modernisation, 10 projects relating to port connectivity, 1 project of SEZ at JNPT and 5 projects under the pillar of coastal shipping and IWT are at various stages of completion.

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 completed in 2021 included 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.



## PORT FACILITIES

### 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.Chidambaranar (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

**Table - 6 : Traffic Handled (cargo) at Major Ports  
2020-21 & 2021-22**

(In million tonnes)			
Sl. No.	Ports	2020-21	2021-22
1A.	Kolkata	15.90	15.30
1B.	Haldia	45.47	42.88
2.	Paradip	114.55	116.13
3.	Visakhapatnam	69.84	69.03
4.	Ennore (Kamarajar)	25.89	38.74
5.	Chennai	43.55	48.56
6.	V.O. Chidambaranar (formerly Tuticorin)	31.79	34.12
7.	Cochin	31.50	34.55
8.	New Mangalore	36.50	39.30
9.	Mormugao	21.99	18.46
10.	Mumbai	53.32	59.89
11.	JNPT	64.81	76
12.	Deendayal (kandla)	117.57	127.10
<b>Total</b>		<b>672.68</b>	<b>720.05</b>

*Figures rounded off*

*Source: Basic Port Statistics of India, 2021-22.*

Mormugao ports were the five leading iron ore handling ports having mechanical ore handling system.

The Cargo traffic in terms of coastal and overseas categories at Major Ports during 2020-21 & 2021-22 are furnished in Table 6.

Commodity-wise break-up of traffic handled at the Major ports in India during 2020-21 & 2021-22 is furnished in Table - 7.

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

(In million tonnes)			
Sl.No.	Commodity	2020-21	2021-22
1.	P.O.L (Crude & Products)	191.06	203.19
3.	Fertilizer	10.38	7.49
4.	Fertilizer Raw material	7.57	8.60
2.	Iron ore	64.33	52.24
5.	Coal*	102.93	123.25
6.	Food grain	1.56	7.03
7.	Other/cargo	294.86	318.25
<b>Total</b>		<b>672.68</b>	<b>720.05</b>

*Source: Basic Port Statistics of India, 2021-22.*

*\* Thermal Coal & coking coal*

### Cargo Handling Capacity and Cargo Handled

Cargo handling capacity at Major ports has also risen with traffic. The capacity which was placed at 871.5 million tonnes at the end of 2014-15 has increased to a level of 1,534.9 million tonnes at the end of 2019-20 and further increased to 1,597.59 million tonnes during 2021-22.

The capacity addition and the productivity improvements achieved by the Major ports coupled with growing participation of Private Sector in cargo handling have had favourable impact on efficiency of cargo handling operations at India's Major ports. The capacity utilisation which was 66.7 % in 2014-15, reduced to 45.1% in 2021-22 The port-wise capacity and capacity utilisation for the year 2021-22 is provided in Table - 8.

PORT FACILITIES

**Table - 8 : Major-Port-wise Capacity Utilisation during 2021-22**

(In million tonnes)

Name of the Port	Capacity	Capacity Utilisation (%)
SMP Kolkata Dock System and SMP Haldia Dock Complex	92.77	62.71
Paradip	289.75	40.08
Visakhapatnam	134.18	51.45
Kamarajar	91.00	42.57
Chennai	135.00	35.97
V.O.Chidambaranar	111.46	30.61
Cochin	78.60	43.96
New Mangalore	108.96	36.06
Mormugao	63.40	29.11
J.L. Nehru	141.37	53.76
Mumbai	84.00	71.30
Deendayal	267.10	47.59
<b>ALL PORTS</b>	<b>1597.59</b>	<b>45.07</b>

*Source: Basic Port Statistics of India, 2021-22.*

**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 Pradesh, Madhya Pradesh, Assam, North East Hill States and the two landlocked 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 tonns (MMT) of cargo traffic during 2020-21 (3rd highest annual throughput) and 42.143 MMT during 2021-22 (up to December, 2021) vis-avis 63.983 MMT during 2019-20, registering a nominal decline of 4.09%, despite the outbreak of Pandemic COVID-19 and severe ‘Amphan’ cyclone unleashing in May 2020. SMPK ranked 5th in traffic handling in 2020-21, vis-a-vis other Major Ports of India. HDC handled 45.468 MMT of cargo during 2020-

21 (Provisional 31.032 MMT during 2021-22 up to December, 2021) and KDS handled 15.90 MMT of cargo in 2020-21 (Provisional 11.111 MMT during 2021-22 up to December, 2021).

***Notable Achievements/Developments in 2020-21***

SMP, Kolkata has signed a slew of MoUs with an economic investment of around Rs 29,000 crore ahead of the Maritime India Summit 2021 in March 2021 in areas of ship repair, ship building, creation of a digital port framework, transloading operations, inland waterway services, logistics operations etc. which will lend a major boost to the whole maritime ecosystem of the hinterland. For the first time in the history of Major Ports of India, Ship-to-Ship (STS) operation of LPG was undertaken by SMPK and BPCL Limited at Sandheads on 15.10.2021. The Mother vessel YUSHAN with a parcel load of 44,551 MT cargo carried out operation with daughter vessel HAMPSHIRE and within a short span of around 17 hours a quantity of 23,051 MT of cargo was transferred to the daughter vessel. SMP, Kolkata continued its Ship-To-Ship (STS) transfer of Carbon

## PORT FACILITIES

Black Feed Stock (CBFS) for Chemical Industry on 20.12.2021 between vessel BW Tagus with 55,576 MT on board & MT PGC Companion and 27,846 MT of CBFS was offloaded within a span of 10.5 hrs. SMPK is the first Major Port to adopt ROIP System (Radio over Internet Protocol) as Effective Long Range Marine communication, covering the River Hugli estuary [with 4 base stations at Kolkata, Hugli Point, Haldia & Sagar Pilot Station] from Kolkata to Sandheads. This system was inaugurated on 25.10.2021. Vessels at Sandheads can now 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 at Latitude 20 – 15'58.63 N and Longitude 86' – 40-27".34 E. The Port handled 114.55 MMT of traffic in 2020-21 (Provisional 83.604 MMT during 2021-22 up to December, 2021). The port has Seventeen (17) berths/jetties plus 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.

### **Notable Achievements during the Year**

Presently port is the 2nd largest cargo handling Major Port in India. The port has been clocking over 100 MMT of cargo volume handling in a financial year since last 4 years. During 2020-21, the port handled an all-time high cargo volume of 114.55 MMT despite Covid challenges registering a cargo growth of 1.86 MMT over previous FY 2019-20. Highest number of vessels handled at the port during 2020-21 was 2051 which is 38 more than the vessels handled during 2019-20. Highest number of railway rakes handled during 2020-21 was as 14,371 compared to 13,216 rakes in 2019-2020 i.e. an increase of 8.73%. The Average Vessel Turn Round Time (TRT) reduced to 54.74 hrs during 2021-22 (up to December, 2022) from 58.10 hrs during 2020-21. The Average Pre-Berthing Delays (PBD) reduced roughly by 60% from 15.32 hrs during 2019-20 to 6.20 hrs during 2020-21. Mechanised Coal handling plant achieved highest

loading output of 6,080 TPH / 1,45,921 TPD, completing 1,36,294 tonnes in 22.25 hrs in Cape size vessel Orion I. The port handled the highest ever Average Rakes per day, i.e., 51.82 Nos in February 2021. Wherein, the Average of Incoming & Outgoing Rakes were 29.93 & 21.89 respectively. Edible oil carrying vessels with very low discharge rate were seen being handled through Mediterranean mooring pattern at the unused waterfront off FB-I berth. Thereby avoiding occupancy of other commercial berth for longer period due to slow rate of cargo operation. Despite draft challenges for handling Cape-size vessels, Baby Cape-size vessels were handled at port berths.

### **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.

### **Notable Achievements during the Year**

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 Container vessel SSL BRAHMAPUTRA with an LOA of 260 m that called at the port on 15-6-2021 and unloaded 1,521 TEUs (25,864 tonnes) of raw cashew from Africa and loaded 300 TEUs of export containers. This is the highest parcel size of containers ever handled at the Port.

Record container traffic of 17,258 TEUs was handled in June 2021 surpassing the earlier record of 16,066 TEUs handled in March 2020. The port handled the first bulk import of Ammonium Sulphate

## PORT FACILITIES

for MCF from the vessel Majestic Maria which called at the Port on 8-8-2021 (11,000 tonnes).

The port handled new chemical cargo 2-Ethylhexyl acrylate for IMC in 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 crossroads 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.

### **Notable Achievements during the Year**

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 & foundation stone was laid for reconstruction of South Coal Berth (SCB) at Wellington Island on 14.02.2021.

### **Jawaharlal Nehru Port**

Constructed in the mid 1980s 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 (up to December-2021) of which containerised cargo account for 51.01 MMT which is 90.98% of the 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 (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 -1 (2.4 million TEUS) on 18th February 2018. Phase-II (2.4 million TEUS) is expected to start in 2025.

### **Notable Achievements during the Year**

During the calendar year 2021(Jan.–Dec., 2021), JN Port handled 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 the newly commissioned BMCT for the first time crossed 1 million TEUs mark in a year (12 months period). NSIGT handled 1.17 Million TEUs (11,66,019) and BMCT handled 1.17 Million TEUs (11,70,502) during the calendar year of 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

## PORT FACILITIES

virtually inaugurated by Hon'ble Union Minister of Ports, Shipping, Waterways & Ayush. The cargo moved in the first lot of 20 dwarf containers consisted of PVC Resin suspension (Grade TC1000) 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).

### ***Notable Achievements during the Year***

Financial Year 2020-21, was the year of the "COVID-19"—the pandemic 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 necessiated on account of COVID-19 and by hiring private labour by arranging bus services for essential staff.

Mumbai Port achieved the rare feat of simultaneous sign-off of 912 crew from the Cruise

Ship "Anthem of Seas" and sign-on of equal number on another Cruise Ship "Celebrity Infinity" in a single day on 16th June 2020 with advance planning of the Port, various Government authorities and the Shipping Agents.

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 8th International Samudra Manthan Awards 2021, held on 16.12.2021, Mumbai Port was awarded Terminal of the year (Non-speciic) 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). KPL has the distinction of being the only corporate port amongst the Major Ports administered by the Central Government. The Port is functioning on landlord model with cargo handling operations either through BOT or captive models. As a part of disinvestment process, the entire Government of India shares have been transferred to Chennai Port Trust on 27.03.2020. KPL has become a subsidiary of Chennai Port Trust. 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).

### ***Notable Achievements during the Year***

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 having a parcel size of 1,37,989 MT of Steam Coal imported from Australia for M/s OPG Power Generation Pvt. Ltd docked at the port. The highest DWT 1,82,567 MT vessel with a draft of 15 m and the length & beam of 292 m & 45m respectively and the above parcel size ever was handled at this terminal. The Mobile X-Ray Container

## PORT FACILITIES

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.

The office of the 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 unshredded metallic scrap consequent to the installation and operationalization 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 for 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 2020-21. During 2021-22 tonnage handled upto December 2021 was 35.62 MMT which comprised 21.80 MMT of Import and 13.82 MMT of Exports. During 2020-21, 13,86,926 TEUs of containers were handled, whereas in the previous year 13,83,971 TEUs were handled. During the current year 2021-22 12,06,956 TEUs with a cargo of 2,32,94,251 tonnes have been handled up to December 2021.

### ***Notable Achievements during the Year***

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 8819 TEUS comprising Import of 4645 TEUs and Export of 4174 TEUs and sailed on 22.05.2021. The above noteworthy achievement surpassing the previous record of 8397 TEUs per vessel of 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 years 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 m. 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

## PORT FACILITIES

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.

### ***Notable Achievements during the Year***

The Hon'ble Union Minister, of Ports, Shipping and Waterways (MoPSW) along with Hon'ble Union Minister of State for Ports, Shipping & Waterways and Tourism, visited Mormugao Port on 11th December, 2021 and in the presence Chairman - MPT and Dy. Chairman – MPT inaugurated The “River Cruise Services”, operated by M/s. Vijai Marine Services Pvt. Ltd at Mormugao Port, which is first of its kind in South Goa. In order to contain dust pollution due to handling of dusty cargo, the Port has commissioned 2 Automatic Truck Wheel Washing units at a cost of ₹ 38,56,761/-. This initiative is expected 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 km 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 Container, 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).

### ***Notable achievements of the Year***

On 14.05.2021, V.O. Chidambaranar Port created a new record for handling a coal vessel with highest parcel size. The Panama lagged 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 Thoothukudi. 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 for handling the vessel with highest parcel size of 92,935 tonnes (Coal) by the vessel Bastions on 14.05.2021.

On 04.12.2021, V.O. Chidambaranar Port contributed ₹ 18.00 Lakhs to the District Administration, as a Corporate Social Responsibility (CSR) initiative, for procurement of high power pumps. The high power pumps are generally used to expedite dewatering of waterlogged areas of Thoothukudi city and other areas on a war footing basis to restore normalcy during flood situation. The Chairman, V.O. Chidambaranar Port, handed over the Cheque for ₹ 18 Lakhs to the District Collector, Thoothukudi District, in the presence of Deputy Chairman, VOC Port at the Port's Administrative Office.

### **Deendayal Port (Kandla)**

Deendayal Port (erstwhile Kandla Port) was established in the year 1950 as a Central Government Project. 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 comprised POL, Iron Ore, Fertilizers, Coal (Thermal/coking) etc.

#### ***Notable Achievements during the Year***

The port retains Numero Uno position and handled 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 virtually inaugurated and Oxygen Plant, set up by the port at Rambaug Hospital, Adipur. Oxygen Generator Plant of capacity 2000 LPM, at Sir T. Hospital Bhavnagar, got Inaugurated on 12th July' 2021 by the Hon'ble Union Minister for Health & Family Welfare, Chemicals & Fertilizer. The Hon'ble Union Minister for P, S & W and AYUSH, also joined the inaugural function conducted virtually.

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. The union Minister of State (IC) for Ports, Shipping & Waterways virtually inaugurated a Medical Oxygen Generator unit with Medical oxygen copper piping network & Fire-fighting system and automatic oxygen source changeover system through oxygen cylinder bank at Deendayal Port hospital, Gopalpuri virtually on 2nd June 2021.

### **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. Capacity of the Port as on 31.12.2021 is 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).

#### **Notable Achievements during the Year**

MoU was signed during the month of May 2021 with M/s HPCL (exclusive Capital user) for up-gradation of Fire Fighting system at OSTT berth as deposit work by the port for HPCL at a cost of ₹ 37.00 crore was undertaken. 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 effort undertaken in running the entire port activities with Solar Energy, 24 hour automated payment gateway with auto receipt and status report made available for trade and all port users.

Parliamentary Standing Committee on 'Empowerment of Women' led by the Chairperson along with other Parliamentarians visited the port on 17.9.2021. The Committee reviewed the CSR activities undertaken in connection with Women Empowerment in the port. The Hon'ble Minister of State for Ports, Shipping & Waterways visited the port on 23.9.2021. The Hon'ble Minister inaugurate the "Grade Separator from H-7 to Convent Junction" and laid Foundation stone for "Development of Cruise Terminal". A supplementary agreement was reached on 29th October 2021 between M/s VGCBPL and the port to utilise the facility for other compatible cargoes by port when the VGCBPL berth is free from handling operations under the main agreement. Vessels up to 43 m beam and LOA 260 m were handled in Inner harbour (Northern arm) during day light and calm weather conditions on trial basis from 11.11.2021. The upgraded Visakhapatnam-Kirandul train, Linke Hofmann Busch and vista dome coaches were flagged off on 22.11.2021 by the Honble vice President of India 21.11.2021 to 24.11.2021.

## **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.



## PORT FACILITIES

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 finalised 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 Southeast 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 217 non-major ports situated along the peninsula coastline and sea-islands. These ports are located in Gujarat (48), Maharashtra (48), Goa (5), Daman & Diu (2), Karnataka (13), Kerala (17), Lakshadweep (10), Tamil Nadu (17), Puducherry (3), Andhra Pradesh (15), Odisha (14), West Bengal (1) and Andaman & Nicobar Islands (24). Out of these 217 Non-major ports, only some ports are well developed and provide all-weather berthing facilities for cargo handling. In 2021-22, 66 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

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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 603.75 million tonnes of traffic during the year 2021-22 as compared to 577.30 million tonnes of cargo handled in 2020-21. The cargo handled at Indian ports reflects a growth of 4.6% in 2021-22 as compared to decline of 6.1% growth registered in 2020-21. At a disaggregated level, the overseas cargo traffic increased by 3.0% in 2021-22 compared to decline of 4.7% recorded in 2020-21. Coastal cargo traffic increased by 15.6% in 2021-22 as compared to a decline of 14.1 % in 2020-21. Container and Other commodity (37.6%) was the largest commodity handled at Non-major ports in 2021-22 followed by POL & Products (27.0%), Coal (24.0%), Iron ore (7.0%), Fertilizer & FRM (2.3%) and Building Material (2.1%). Commodity composition of traffic handled by Non-major ports during the year 2020-21 and 2021-

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 2021-22 was of the order of 405.39 million tonnes as against 387.57 million tonnes in 2020-21, reflecting an increase of 4.6% in 2021-22 as compared to decline of 5.9% in 2020-21. Non-major ports of Gujarat account for around 67.1% of the total cargo handled by Non-major ports in India during 2021-22. Overseas traffic in 2021-22 was 359.88 million tonnes with the remaining 45.51 million tonnes being coastal traffic. GAPL port handled the highest cargo tonnage of 144.21 million tonnes (35.6%) of the total cargo handled by Non-major ports in Gujarat in 2021-22. Main commodities handled by GAPL port is Container cargo that contributes to 61.8 % of the traffic handled at the port. Sikka Port handled the cargo tonnage of 127.98 million tonnes in 2021-22 as compared to 121.42 million tonnes handled in 2020-21. This port accounted for 31.6% of the total cargo handled by the Non-major ports in Gujarat in 2021-22, 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. Magdalla Port handled 32.47 million tonnes of cargo in 2021-22 with a share of 8.0% in total traffic. Major commodities handled by the port is 'POL & its products'. Dahej port accounted for 31.68 million tonnes (7.8%) of the cargo traffic in 2021-22. Major commodities handled by the port are coal & iron ore. The important ports which showed increase in the cargo handled during 2021-22 were Sikka, Magdalla, Mul-Dwarka, GAPL, Dahej Pipavav while Jafarabad and Bedi recorded decline for 2021-22 as compared to 2020-21. POL & products and Other Commodities accounted for 39.6% of the total cargo handled in 2021-22. This was followed by Coal (13.0%), Iron Ore (3.9%), Building Material (2.0%) and Fertilizer & FRM (1.9%).

**Table 9: Traffic Handled at Non-major Ports 2020-21 and 2021-22**

(In Million Tonnes)		
Commodity	2020-21	2021-22
<b>POL &amp; its Products</b>	157.63	163.05
<b>Iron Ore</b>	42.99	42.46
<b>Building Material</b>	13.89	12.70
<b>Coal*</b>	153.84	144.92
<b>Fertiliser &amp; FRM</b>	13.41	13.88
<b>Others</b>	195.55	226.75
<b>Total</b>	<b>577.3</b>	<b>603.75</b>

*Source:* Basic Port Statistics 2021-22

\*Thermal Coal & Coking Coal

22 is furnished in Table-9

## 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 coastline). 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 17 Non-major ports. The remaining 31 Non-major ports are used for fishing

### Andhra Pradesh

Andhra Pradesh is another important maritime State with a coastline of around 975 m. There are 15 Non-major ports in Andhra Pradesh, of these, 4 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

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country during 2021-22 was 14.6%. Non-major ports in Andhra Pradesh collectively handled 87.98 million tonnes of cargo during 2021-22 as compared to 89.64 million tonnes in 2020-21, registering a decline of 1.8% in traffic. The overseas traffic during 2021-22 was 75.15 million tonnes (85.4%) of the total cargo traffic in Non-major ports of Andhra Pradesh and coastal traffic was of the order of 12.84 million tonnes (14.6%) of total cargo traffic. Krishnapatanam handled the highest cargo 14.12 million tonnes (45.6%) followed by Gangavaram (34.1%), Kakinada Deep Water (16%), Kakinada Anchorage (3.3%) and Rawa port (1.0%). Commodity-wise analysis of the total cargo handled by the Non-major ports in Andhra Pradesh indicates that Coal (52.1%), Other Cargo (34.4%), Fertiliser & FRM (5.5%) Iron ore (5.0%), POL & Product (1.6%) and Building material (1.4%) were the principal items of cargo handled during 2021-22 by the Non-major ports of Andhra Pradesh

### MAHARASHTRA

Maharashtra has a coastline of around 653 km with 48 notified Non-major ports. Out of these only 16 ports handled cargo traffic during 2021-22. The total cargo traffic handled at the Non-major ports of Maharashtra during 2021-22 was 52.47 million tonnes as compared to 39.84 million tonnes in 2020-21. This shows increase of 31.7%. Out of 52.47 million tonnes of total cargo handled by Non-major ports in Maharashtra, Overseas traffic increased by 21.0% to 25.44 million tonnes in 2021-22 from 21.02 million tonnes in 2020-21 while Coastal traffic-increased by 44% to 27.03 million tonnes in 2021-22 from 18.82 million tonnes in 2020-21. Dharamtar is the leading Non-major port of Maharashtra with traffic of 20.18 million tonnes accounting for 38.5% of total traffic at Non-major ports handled in the State. Commodity-wise break-up of the cargo handled by the Non-major ports of Maharashtra indicates that Coal traffic of 22.76 million tonnes constituted 43.4% of the total cargo handled in 2021-22 followed by Iron ore (29.1%), Other commodities (22.3%), Building Material (5.0%) and POL & Products (0.3%).

### GOA

Goa has a coastline of about 118 km. There are 5 Non-major ports in Goa. Out of this only one port, Panaji normally handles cargo traffic. Panaji port handled cargo traffic of 0.03 million tonnes during 2021-22 as compared with 0.04 million tonnes handled

in the previous year. Iron ore and Coal have 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. The Coal handled decreased from 0.41 million tonnes in 2014-15 to 0.002 million tonnes during 2021-22.

### KARNATAKA

Karnataka has a coastline of around 280 km with 13 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 2021-22 as compared to 0.79 million tonnes in 2020-21 reflecting same level of cargo handled in both the years. The contribution of the Karwar Port was 0.73 million tonnes cargo which constitutes 92.9% of total cargo handled by Non-major ports in Karnataka in 2021-22.

### TAMILNADU

Tamil Nadu has a coastline of around 906 km. The State has 17 Non-major ports, out of which only 6 ports handled cargo traffic. During 2021-22 the non-major ports in Tamil Nadu collectively handled 7.84 million tonnes of cargo traffic as compared to 7.41 million tonnes in the previous year. Kattupalli port handled the maximum traffic of 7.44 million tonnes during 2021-22 accounting for 94.9% followed by Cuddalore port (0.30 million tonnes) accounting for 3.9% and Other Ports (0.1 million tonnes) accounted for 1.2% of the total traffic handled by all the Non major ports in the State. The commodity-wise breakup of traffic handled at Non-major ports in Tamil Nadu indicates that Other Commodities constitute to be the major item of cargo handled (96.1%) followed by POL & Products (0.31 million tonnes) with a share of 4.0% of the traffic.

### Odisha

Odisha has a coastline of 480 kms. from Andhra Pradesh border in Ganjam District to West Bengal border in Balasore District. It is endowed with conducive, unique, natural and strategic port locations. The Government of Odisha identified 14 potential sites for development of Minor Ports. To facilitate developers for development of Minor Ports, Government of Odisha framed the Port Policy during the year 2004. The advantages for development of sea ports in Odisha includes availability of a vast

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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 2021-22, the Non-major ports in Odisha collectively handled 41.54 million tonnes of cargo traffic as compared to 43.03 million tonnes in the previous year showing an decrease of 3.5%. The commodity-wise breakup of traffic handled at Non-major ports in Odisha indicate that Coal constitute the major item of cargo handled (19.57 million tonnes) with a share of 47.1% followed by Other commodity (35.2%) Iron ore (16.6%) and Fertiliser and FRM Dry (1.1%).

### 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.

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

(In Million Tonnes)

State	2019-20	2020-21	2021-22
Gujarat	411.79	387.57	405.39
Maharashtra	43.66	39.84	52.47
Andhra Pradesh	99.91	89.64	87.98
Tamil Nadu	11.37	7.41	7.84
Karnataka	0.94	0.79	0.79
Odisha	35.27	43.03	41.54
Others	12.12	9.03	7.73
<b>Total</b>	<b>615.05</b>	<b>577.3</b>	<b>603.75</b>

*Source:-* Basic Port Statistics 2021-22

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