

REPORT NO.

352



सत्यमेव जयते

PARLIAMENT OF INDIA
RAJYA SABHA

**DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEE
ON TRANSPORT, TOURISM AND CULTURE**

THREE HUNDRED FIFTY SECOND REPORT

‘Functioning of Major Ports in the Country’

(Presented to the Rajya Sabha on 10th August, 2023)

(Laid on the Table of Lok Sabha on 10th August, 2023)



Rajya Sabha Secretariat, New Delhi
August, 2023 / Sravana, 1945 (Saka)

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Hindi version of this publication is also available

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**RAJYA SABHA SECRETARIAT
NEW DELHI**

August, 2023 / Sravana, 1945 (Saka)

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*To be appended

COMPOSITION OF THE COMMITTEE
(2022-23)
(Constituted on 13th September, 2022)

1. **Shri V. Vijayasai Reddy** - Chairman

Rajya Sabha

2. Shri Mohammed Nadimul Haque
3. Shrimati S. Phangnon Konyak
4. Shri Jugalsinh Lokhandwala
5. Shri Manas Ranjan Mangaraj
6. Dr. Sonal Mansingh
7. Shrimati Rajani Ashokrao Patil
8. Shri A. A. Rahim
9. Dr. C. M. Ramesh
10. (vacant)*

Lok Sabha

11. Shri Anto Antony
12. Shri Ram Margani Bharat
13. Shri Tapir Gao
14. Shri Rahul Kaswan
15. Shri Ramesh Chandra Majhi
16. Shri Sunil Baburao Mendhe
17. Shri K. Muraleedharan
18. Shri S. S.Palanimanickam
19. Shri Chhedi Paswan
20. Shri Kamlesh Paswan
21. Shri Sunil Kumar Pintu
22. Shri Prince Raj
23. Shri Tirath Singh Rawat
24. Shrimati Mala Roy
25. Shri Rajiv Pratap Rudy
26. Shri Dushyant Singh
27. Shri Rajbahadur Singh
28. Shri Ramdas Chandrabhanji Tadas
29. Shri Manoj Kumar Tiwari
30. Shri Krupal Balaji Tumane
31. Shri Dinesh Lal Yadav "Nirahua"

SECRETARIAT

Shri Raghav Prasad Dash, Joint Secretary
Shrimati Monica Baa, Additional Director
Shrimati Subha Chandrashekar, Deputy Secretary
Shri Ranajit Chakraborty, Under Secretary
Ms. Jahanvi, Assistant Committee Officer

*Vacancy caused due to retirement of Shri Vinay Dinu Tendulkar w.e.f. 28.07.2023

INTRODUCTION

I, the Chairman, Department-related Parliamentary Standing Committee on Transport, Tourism and Culture, having been authorized by the Committee to present on its behalf, do hereby present this Three Hundred Fifty-Second Report on 'Functioning of Major Ports in the Country'.

2. The Committee heard the views of the representatives of the Ministry of Ports, Shipping and Waterways, on the subject on 24th April, 2023. The Committee also heard the views of the representatives of Indian Private Ports & Terminals Association (IPPTA) and Indian Ports Association (IPA), in its meeting held on 17th May, 2023. The Committee in its third meeting on the subject, held on 16th June, 2023, heard the views of Jaigarh Port and Pipavav Gujarat Port. Further, the Committee heard the views of the Dedicated Freight Corridor Corporation of India Limited (DFCCIL) on the subject, in its meeting held on 26th June, 2023.

3. The Committee wishes to express its thanks to the officers of the Ministry of Ports, Shipping & Waterways; Indian Private Ports & Terminals Association; Indian Ports Association; Jaigarh Port; Pipavav Gujarat Port; and Dedicated Freight Corridor Corporation of India Limited, for placing before the Committee, the material and information desired in connection with the subject and for clarifying the points raised by the Members.

4. The Committee considered and adopted the Report in its meeting held on the 9th August, 2023.

NEW DELHI;
August 9, 2023
Sravana 18, 1945 (Saka)

(V. Vijayasai Reddy)
Chairman,
Department-related Parliamentary Standing
Committee on Transport, Tourism and Culture,
Rajya Sabha

ACRONYMS

3D	Three Dimensional
AECT	Adani Ennore Container Terminal
AGV	Automated Guided Vehicles
APSEZ	Adani Ports and Special Economic Zone
ASI	Archaeological Survey of India
BMCTPL	Bharat Mumbai Container Terminals Private Limited
BOT	Build-Operator-Transfer
C4NGP	Centre of Excellence in Modelling and Simulation of Next Generation Ports
CAG	Comptroller and Auditor General of India
CAPEX	Capital expenditures
CB	Coal Berth
CCTPL	Chennai Container Terminal Private Limited
CEUs	Coastal Economic Units
ChPA	Chennai Port Authority
CISF	Central Industrial Security Force
CITPL	Chennai International Container Terminal Private Limited
COD	Commercial Operations Date
COE	Centre of Excellence
CONCOR	Container Corporation of India Ltd.
CoPA	Cochin Port Authority
CoPT	Cochin Port Trust
COT	Cochin Oil Terminal
CPCP	Comprehensive Port Connectivity Plan
CSC	Conciliation & Settlement Committee
CT	Container Terminal
DBFOT	Design-Build-Finance-Operate-Transfer
DFC	Dedicated Freight Corridor
DFCCIL	Dedicated Freight Corridor Corporation of India Limited
DPA	Deendayal Port Authority
DPIIT	Department for Promotion of Industry and Internal Trade
DPW	Dubai Ports World
DTEPA	Dahanu Taluka Environmental Protection Authority
DWT	Deadweight tonnage
E.Co. Rly	East Coast Railways
EEDI	Energy Efficiency Design Index
EJC	East Dock Junction
EoDB	Ease of Doing Business
EPC	Engineering, Procurement and Construction
EPCG	Export Promotion Capital Goods
EPIs	Environment Performance Indicators
EQ	East Quay
EV	Electronic Vehicle

EXIM	Export Import
FTP	Foreign Trade Policy
FY	Financial Year
GCB	General Cargo Berth
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIS	Geographic Information Systems
HDC	Haldia Dock Complex
HMC	Harbour Mobile Crane
ICTT	International Container Transshipment Terminal
IGM	Import General Manifest
IMO	International Maritime Organization
INR	Indian Rupees
IOCL	Indian Oil Corporation Limited
IOHP	Iron Ore Handling Plant
IPA	Indian Ports Association
IPPTA	Indian Private Ports and Terminals Association
IWAI	Inland Waterways Authority of India
JNPA	Jawaharlal Nehru Port Authority
JNPT	Jawaharlal Nehru Port Trust
KDS	Kolkata Dock System
KLD	Kilo Litres per Day
KoPT	Kolkata Port Trust (erstwhile SMPK - Shyama Prasad Mookerjee Port, Kolkata)
KPL	Kamarajar Port Limited
LED	Light Emitting Diode.
LHD	Light House Dues
LNG	Liquefied Natural Gas
MARPOL	International Convention for the Prevention of Pollution from Ships
MbPA	Mumbai Port Authority
MbPT	Mumbai Port Trust
MCA	Model Concession Agreement
MCHP	Mechanised Coal Handling Plant
MEIS	Merchandise Exports from India Scheme
MGC	Minimum Guaranteed Cargo
MHC	Mobile Harbour Crane
MICT	Maintenance of International Cruise Terminal
MIV	Maritime India Vision
MLD	Million Litres per Day
MLT	Mean Low Tide
MMB	Maharashtra Maritime Board
MMLP	Multi Modal Logistic Parks
MMT	Million Metric Tonnes
MMPA	Million Metric Tonnes Per Annum
MoCI	Ministry of Commerce and Industry

MoPS&W	Ministry of Ports, Shipping & Waterways
MoR	Ministry of Railways
MoRTH	Ministry of Road Transport & Highways
MoU	Memorandum of Understanding
MPA	Maritime & Port Authority of Singapore
MPA Act	Major Ports Authority Act
MoPT	Mormugao Port Trust
MRPL	Manglore Refinery Petrochemicals
MT	Metric Tonnes
MTPA	Million Tonnes Per Annum
NCB	North Cargo Berth
NH	National Highway
NHAI	National Highways Authority of India
NIL	Nothing in line/zero
NLP	National Logistics Portal
NMPA	New Mangalore Port Authority
NCoEGPS	National Centre of Excellence for Green Port and Shipping
NMPT	New Mangalore Port Trust
NOC	No Objection Certificate
NPAs	Non Performing Assets
NSD	Netaji Subhash Dock
NSDC	National Skill Development Corporation
NSICT	Nhava Sheva International Container Terminal
NTB	North Tanker Berth
OCR	Optical Character Recognition
OEC	Ore Exchange Complex
ONGC	Oil and Natural Gas Corporation
OOT	Offshore Oil Terminal
OSBD	Output Per Ship Berth Day
PAP	Project Affected People
PCS	Port Community System
PGA	Participating Government Agencies
PLC	Programmable Logic Controllers
POL	Petroleum, Oil and Lubricants
POS	Port Operating System
PPA	Paradip Port Authority
PPP	Public Private Partnership
RFID	Radio Frequency Identification Document
RFQ	Request for Quote
RMQC	Rail Mounted Quay Crane
Ro-Ro/Ro-Pax	Roll on - Roll off Passenger
RoB	Road Over Bridge
RTYGC	Rubber-Tyred Yard Gantry Crane
SAROD	Society for Affordable Redressal of Disputes
SDG	Sustainable Development Goals

SEIS	Services Exports from India Scheme
SEZ	Special Economic Zone
SIOTL	Sical Iron Ore Terminals Limited
SIPC	Smart Industrial Port City
SMPA	Shyama Prasad Mookerjee Port Authority
SMPK/SMPT	Shyama Prasad Mookerjee Port Trust, Kolkata
SMTP	Simple Mail Transfer Protocol
SoR	Scale of Rates
SQB	South Quay Berth
STP	Sewage Treatment Plants
TAMP	Tariff Authority for Major Ports
TANGEDCO	Tamil Nadu Generation and Distribution Corporation
TEU	Twenty-foot Equivalent Unit
TKM	Tonne-Kilometer
TNEB	Tamil Nadu Electricity Board
TOS	Terminal Operating System
TRT	Turn-Around Time
UAE	United Arab Emirates
UNEDIFACT	United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport
UOMT	Upgradation, Operation and Maintenance & Transfer
USA	United States of America
USD/ US\$	United States Dollar
VGCB	Vizag General Cargo Berth
VOCA/VOCPA	V. O. Chidambaranar Port Authority
VOCPT	V. O. Chidambaranar Port Trust
VPA	Vishakhapatnam Port Authority
VPPL	Vadhavan Port Projects Ltd
VRC	Vessel-Related Charges
WPI	Wholesale Price Index
WQ	West Quay

REPORT

Ports play a pivotal role in the economic development of a country. They serve as important gateways for international trade, facilitating the movement of goods and commodities between countries. The main functions of the early ports were cargo handling and storage, gradually expanding to packaging and distribution. The role and function of ports have evolved over time along with the evolution of maritime transport technology. The development of container transportation in the early 1980s witnessed a sea change in the role of ports from traditional services to value-added logistics services, eventually leading to the emergence of a new intermodal transport system.

2. A modern seaport is not merely a transit area but a crucial link in a global supply chain ecosystem. Today, ports compete for seamless integration in supply chains to create added value to the cargo passing through the port. The share of the major and non-major ports of India in cargo traffic reflects the reality of the changing roles of the Ports. The Major Ports of India are facing stiff competition from the ports styled as Minor Ports though the distinction is only in terms of jurisdiction. The major ports are under the direct administrative control of the Central Government and fall in the Union List in the 7th Schedule of the Constitution. Ports other than the major ones are under the jurisdiction of the respective State Maritime Board and fall in the Concurrent List.

3. Though port traffic in India registered a steady rise year after year, reflecting the country's growing international trade, yet the share of non-major ports in the handling of overall traffic has been steadily increasing compared to the major ports. Of the total traffic handled by all Indian ports, the Major Ports handle 55% whereas the Minor Ports handle 45%. The impressive performance of the non-major ports is reflective of the greater operational efficiencies, freedom to fix tariffs, availability of vast storage space at nominal prices, longer concession periods, low waterfront royalties and so on. In contrast, the major ports suffer from old and inadequate infrastructure, low draft depths and poor hinterland connectivity. Further, major ports under the Tariff Authority for Major Ports (TAMP) regime earlier and various other regulatory controls struggle to sustain in the tough competition vis-à-vis non-major ports.

4. To enable the Major Ports to be competitive with the private players in the sector and to infuse professionalism and transparency in the governance of the Ports, the Major Port Authorities Act, 2021 was passed which bestowed on the Major Ports greater autonomy. As a result, the control of TAMP has been diminished and the Port Authority (erstwhile Port Trust) now has the power to enter into contracts and fix the tariffs as per the market conditions, enabling them to compete with the private players. Further, to harness the private sector's potential, the Government has formulated policies to attract them for infrastructure development through Public Private Partnerships (PPP).

5. The Major Port Authorities Act and the Indian Ports Act are the two principal statutes in the sector, which provide for the constitution of the major port authorities and the administration, control and management of the ports. The Indian Ports Act also contains provisions for the operation, pilotage and other related issues for the non-major ports.

6. The earlier Major Port Trusts were administered by their respective Board of Trustees headed by the Chairman, and the Members of the Board were nominated by the Government of India from various stakeholders of the port. Consequent upon the enactment of the Major Port Authorities Act 2021, the board for each major port will now include representatives from the state government, the Ministry of Railways, the Ministry of Defence, the Ministry of Customs, and the Department of Revenue as members. In addition, the board will have a government nominee member and a representative of the employees of the Major Port Authority.

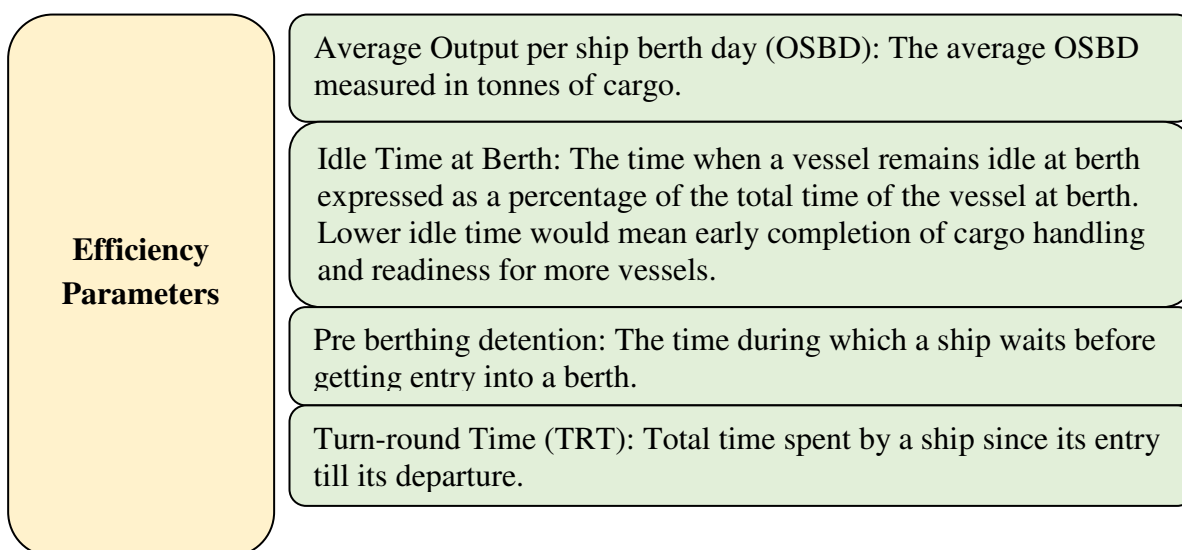
7. There are 12 major ports and about 213 non-major ports along India's vast coastline, which is approximately 7,517 km. Six Major Ports, viz., Syama Prasad Mookerjee Port (SMP), Kolkata, Paradip Port, Visakhapatnam Port, Kamarajar Port (Ennore), Chennai Port and V.O. Chidambaranar Port, are on the east coast and the other Six Major Ports, viz., Cochin Port, New Mangalore Port, Mormugao Port, Mumbai Port, Jawaharlal Nehru Port (Sheva, Navi Mumbai) and Deendayal Port (erstwhile Kandla) are on the west coast.

8. The oldest Major Port of India is the Kolkata Port, now called the Syama Prasad Mookerjee Port. It is also the country's only Major Riverine port. The second oldest port, Mumbai Port, is also India's largest Natural port and harbour. Out of the 12 Major Ports, the Kamarajar Port or the Ennore Port in Tamil Nadu is the only corporatized port registered as a Company.

9. To study the impact of the various policy initiatives taken by the Government on the functioning of the Major Ports, the PPP partnerships entered into by the Major Ports and the technological advancements introduced to improve port performances, the Department Related Parliamentary Standing Committee on Transport, Tourism and Culture decided to take up the subject "Functioning of Major Ports in the Country" for examination and report thereon. As a sequel to an examination of the subject, the Committee called for Background Notes and Replies to Questionnaires formulated to obtain exhaustive information on the relevant topics relating to port performance and development. The Committee heard the views of the Secretary, Ministry of Ports, Shipping and Waterways on the subject in its meeting held on the 24th April 2023, the representatives of the Indian Ports Association and the Indian Private Ports and Terminals Association on 17th May 2023, the representatives of the Minor private ports, the Gujarat Pipavav Port and the JSW Jaigarh Port, Maharashtra on the 16th June 2023 and the representatives of Dedicated Freight Corridor Corporation of India Limited (DFCCIL) on the 26th June, 2023.

II. PERFORMANCE PARAMETERS OF MAJOR PORTS

10. Operational efficiency at ports is contingent upon the following four efficiency parameters:



11. The Ministry informed that the major challenges in improving performance across the efficiency parameters at major ports include lack of adequate drafts at ports, dependence on tides, poor mechanisation, insufficient number of equipment and other facilities, lack of skilled manpower, inadequate allocation of storage space, lack of enough land availability, lack of proper evacuation facilities, old flotilla, to name only a few.

The following table shows the performance parameters of all Major Ports over the last ten years.

Year \ Parameter	Avg. Total TRT (In Hours)	Average Output Per Ship Berthday (In Tonnes)	Traffic (in 000' tonnes)
FY13-14	93.59	12468	555487
FY14-15	96	12458	581344
FY15-16	87.36	13156	606465
FY16-17	82.31	14576	648398
FY17-18	64.43	15333	679371
FY18-19	59.51	16541	699099
FY19-20	56.13	16419	704927
FY20-21	55.99	15373	672680
FY21-22	52.87	16068	720052
FY22-23	52.43	17239	796290

(Source – M/o Ports, Shipping & Waterways)

Annexure-I details the origin, location, type of cargo, number of container terminals, berths, capacity and other details of the 12 Major Ports in India. **Annexure II** details the various Performance Parameters of the individual Major Ports and comparisons with global standards.

TRAFFIC HANDLED BY MAJOR PORTS

12. The Ministry informed that the total traffic handled by all ports, both Major and Minor, was 1445 MT against a total capacity of 2627 MT per annum. The Committee observes that the total traffic handled by the Major Ports in 2022-23 was 796 MT, an increase of 10.41% over the preceding year of 720 MT, while the traffic handled by Minor Ports was 650 MT. In all, the share of Major Ports in total cargo handled was 55% and that of Minor Ports was 45%. In his deposition, the Secretary informed the Committee that this incremental increase of 10% in the total traffic handled by the Major Ports is the highest ever increase in cargo handling. The Secretary also informed that in 2022-23, the Major Ports had reversed the trend of their declining market share as in 2021-22, major ports handled 54 per cent of the total cargo, and the non-major ports, all combined, handled 46 per cent.

13. **The Committee observes that the cargo handling of the Major Ports has been steadily increasing over the years, and only in the last year has there been an increase of 10%. On a query by the Committee, the Ministry replied that to augment the volume of cargo handling, the Port Authorities have also explored the possibility of generating new cargo to reduce the gap between the actual traffic and the capacity. Major Ports also organize trade meets to attract traffic from their hinterland/region. Several steps have also been taken to boost coastal shipping.**

14. **The Committee also observes that the increase of 10% has come primarily due to JNPA's impressive performance, followed by Paradip and Deendayal Port. There is only a marginal increase in the figures of the remaining Ports, while the Mormugao Port has witnessed a decline in traffic. The growth trend in the market share of cargo is, therefore, confined to only three of the Major Ports while the remaining show barely perceptible improvements. The Committee underscores the need for better performance by the remaining nine Major Ports and recommends that the Ministry come out with a focused and calibrated strategy to raise the cargo handling performance of such Major Ports.**

15. **The Committee observes that India occupies the 11th position globally regarding container traffic handled. Massive Container Ships invariably require deep drafts, and the ports must remain alive to their requirements. At present, most Indian Ports have drafts of about 14 mts, with only a few having 16 mts drafts, while Container Ships require drafts of upto 18-20 mts.**

CAPACITY OF MAJOR PORTS

16. There are no two views that the capacity of Major Ports has increased over the years. However, the capacity utilisation was only around 49%. The Ministry informed the Committee that the total capacity of both major and non-major ports in the country is 2627 million tonnes per annum, of which about 1,600 million tonnes per annum is the capacity of the major ports, and the other 1000 million tonnes per annum is the capacity of the non-major ports. The capacity utilisation of the major ports is about 49 %, and that of the non-major ports is around 64%.

17. The Secretary, while responding to a query during deposition before the Committee said that in the Ports Sector, 70% of capacity utilisation is considered to be saturation and the beginning of congestion in the ports. The Major Ports continuously augment their cargo handling capacity to meet the ever growing needs of the economy. In 2015, the capacity was only 872 MT and in 2022, it has grown to touch 1,600 MT. The Secretary further elucidated that had the capacity not been expanded by nearly 800 MT in the last eight years, the ports would have reached 90% of their capacity and got choked. There are ports in which the capacity utilisation has touched even 70 per cent, but, on average, the capacity utilisation is around 49 per cent for the major ports. The only exception is the Goa port which has only 27% capacity and is in a negative growth trajectory. The future target of capacity addition is to achieve 2000+ MTPA by 2030. Several capacity augmentation projects are already under implementation, like the mechanisation of berths, modernisation of facilities, improving productivity and efficiency, bringing in best practices at the ports, etc.

18. The Committee observes that while port capacity is considered to be saturated at 70-75% of capacity, some of the Major Ports are functioning far below the mark. Mormugao operates at only 27% capacity, while Chennai and VoCA operate just at 32%.

19. The Committee observes that there is still much untapped potential to be harnessed so as to increase the capacity of most of the Major Ports. The Committee points out that the capacity utilization of the Non-Major Ports in India has remained at 64%, which is much higher than the average capacity utilization in the Major Ports and recommends that the Major Ports may set targets to increase the utilization of their existing capabilities to an optimum level.

TURNAROUND TIME AND AVERAGE SHIP OUTPUT PER BERTH DAY

20. The Ministry informed that the targets set in Maritime India Vision 2030 for Average Vessel Turn Around Time and Turn Around Time (Containers) are < 40 hours and <20 hrs, respectively and for Average Ship Berth day Output, it is >30000 Tonnes. The average vessel turnaround time at major ports is 52 hours, whereas the average container turnaround time is 28 hours. Presently, only the Turn Around Time (Containers) of JNPA is 24 hours and the Ship Berth Day Output of Paradip Port during 2022-23 is 31050 Tonnes. The Ministry has further informed that the Global Comparison of Indian Ports on the “Turn Around

Time” parameter, as published in World Bank’s Logistic Performance Index Report 2023, acknowledges Indian Ports “Turn Around Time” as 0.9 days which is better than USA (1.5 days), UAE (1.1 days) Singapore (1.0 days), Russian Federation (1.8 days), Malaysia (1.0), Ireland(1.2 days), Indonesia (1.1 days), New Zealand (1.1 days) and South Africa (2.8 days).

21. The Ministry informed that various parameters for reducing dwell time and transaction costs in the Major Ports had been identified and implemented. These include the elimination of manual forms, providing land for accommodation of laboratories of Participating Government Agencies (PGAs), facilitation of Direct Port Delivery and Direct Port Entry, Installation of Container Scanners, issuance of E-delivery orders, installation of RFID based Gate-automation System, NLP-Marine, etc.

22. The Committee observes that of all the Major Ports, only the JNPA has achieved a world-class Turn Around time of 24 hours for Containers. The Committee commends the JNPA for this seminal achievement and exhorts the other Major Ports to follow the good practices of the JNPA to improve their respective Turn Around times. Though the best global TRT is 18 hours, JNPA compares with the top international ports like Shanghai, Jebel Ali, Singapore and Rotterdam. India has moved up six places in the Logistics Performance Index of the World Bank from 44th rank to 38th rank due to the creditable performance of the JNPA.

23. Upon enquiry by the Committee at its meeting held with the JNPA authorities in Mumbai on 5th July, 2023 on the reasons for the reduction in the JNPA’s Turn Around Time, the JNPA authorities informed that this achievement could be possible due to increase in capacity, simplification of processes and procedures and most importantly, due to digitalisation.

24. The JNPA has taken up rail and road connectivity projects and constructed a new Centralized Parking Plaza for container tractor-trailers with Customs facilitation to promote ease of doing business.

25. The Committee has been informed that the Average Vessel Turn Around Time (TRT) for all Major Ports has come down to 52 hours from the earlier 80-90 hours which shows that the operational efficiency has improved. The efforts made by major ports in terms of mechanisation and automation have started yielding results. **The Committee notes that while the TRT may have come down considerably from 80-90 hours, there has been only marginal improvement in the last five years despite the massive investments in technology, mechanisation and infrastructure. Of the 12 Major Ports, only 3-4 are functioning well with acceptable performances. The performance of other Major Ports in Turn Around Time must attract the undivided attention of the respective Port authorities in the larger interest of ensuring greater operational efficiency.**

26. Against this backdrop, the Committee calls upon the Port authorities to redouble their efforts on multiple fronts, lest achieving the goal of less than 20 hours Turn Around Time as envisioned in the Maritime Vision 2030 would remain elusive.

27. The Committee also notes that the Average Ship Output Per Berth Day, like the TRT, shows only a marginal increase for many ports, and some ports have even shown a decline in output. Though the Paradip Port has crossed the threshold of 30,000 tonnes, yet unless all Major Ports project discernible increase in their performance parameters, the efforts of individual Ports would not help achieve the objectives. The Committee recommends that the Ministry takes special efforts towards monitoring the ground situation at ports that impede the performance progress.

28. The Committee notes that every year, each Major Port enters into an MoU with the Ministry in which targeted efficiency parameters are agreed upon. The Committee desires to know the targets set for all four efficiency parameters and whether the ports have achieved the same. The Committee observes that due to infrastructure development and technological advancements, a proportional increase in productivity is only expected. As such productivity enhancement is invariably contingent upon and commensurate with the volume of investment. The Committee draws the attention of the Ministry to the imperative need for targeted performance by the major ports as agreed to in the MoU and recommends that each Major Port may fix a target proportional to the amount of investments in infrastructural development.

29. The Committee observes a significant correlation between the world-class performance of JNPA and the fact that all 10 Container Terminals under JNPA are functioning under PPP basis and all its Container berths are mechanized. The PPP model has brought in efficiencies ordinarily associated with the private sector, which along with mechanization and increased connectivity, has helped the JNPA improve its productivity and performance parameters.

30. The Committee observes that mechanization of berths, minimum dwell time, skilled labour, and port connectivity for reduction in evacuation time are essential to reduce the Turnaround time and recommends that the Ministry may make efforts to bring in greater PPP partnerships for mechanization of berths.

31. The Committee has also been informed about the lack of availability of skilled workforce in the port sector that hampers productivity growth. The Committee recommends that Logistics Skills may be included in the training programmes being conducted under the auspices of the National Skill Development Corporation (NSDC) to cater to the ever dynamic needs of the port sector.

DRAFTS OF INDIAN PORTS VERSUS FOREIGN PORTS

32. Maritime India Vision 2030 has suggested that 16 meter deep drafts would be essential to improve the cargo handling capacity of Indian Mega Ports. Most of the Major ports have already achieved a draft of 14 meters, and some other ports, namely Kamarajar, Paradip, Deendayal and Cochin, are striving to achieve much deeper drafts of up to 18 meters. To ensure the smooth movement of ships, the Ports regularly take up maintenance dredging of channels and berths.

33. The Committee observes that the world over, the shipping industry is moving towards mega-size vessels with ships of 20,000 TEU and above. While a Capesize vessel requires upwards of 18m draft, the draft at Indian ports is in the range of 14-16 meters only, owing to siltation. The Committee observes that the geographical and topographical limitations are identical for both the public and private ports in India, but the private ports have been able to develop drafts matching with world-class ports whereas the public ports have lagged behind. The Gujarat Pipavav port has a draft of 18.5 metres and plans to extend it to 20.5 metres. The Committee, while acknowledging the high dredging costs, underscores that the ports drafts must be in sync with the growing size of the ships in the interest of maximizing the benefits of large ships in cargo handling.

34. Ports must increase draft according to the respective cargo profile. Indian container terminals must target an 18m+ draft. With the evolving ship types and increasing port parcel sizes, loading and discharge rates must be enhanced. The Committee also emphasizes that greater ship sizes and container loads need increased mechanization at Indian ports to improve the loading and unloading ecosystem. Dual-cycle cranes and Automated Guided Vehicles (AGVs) may be introduced in ports to ensure incremental productivity.

35. The Committee observes that the Indian Private Ports and Terminals Association (IPPTA) had stated in its deposition before the Committee that most of the tugs deployed by major ports had outlived their effective life and are operating beyond economic conditions. The service levels rendered by them do not match the Industry Standards. Private Tug Companies should be encouraged to render towage services at Major Ports in line with the international practices. The Committee calls upon the Ministry to consider this issue on merit.

FINANCIAL PERFORMANCE OF MAJOR PORTS

S.No.	Year	Net Surplus (Rs. In Crore)
1	FY 2018-19	2804.25
2	FY 2019-20	4493.71
3	FY 2020-21	4124.13
4	FY 2021-22	4131.38
5	FY 2022-23	6992.53

36. The Ministry informed that the operating ratio, the rupee spent for every rupee earned, has come down to Rs. 48 from Rs. 53 in 2020-21. That is, Rs. 48 is being spent for every hundred rupee-earned. The operating income in 2022-23 was Rs. 18,198 crores, and the 'operating surplus' is around Rs. 9,365 crores. **(Annexure-III)**

37. The 'operating surplus' is the difference between the 'operating income' and the 'operating expenditure.' However, the Net Surplus is Rs. 6,993 crores because some of the old ports have legacy pension liabilities, and a lot of the surplus gets used up for pension liabilities under the old pension scheme. After 1996, most port operations were privatized, and the pension liabilities were significantly less. The Mumbai Port, Mormugao Port in Goa and the Cochin ports have financial problems due to pension liabilities and other issues. The Ministry also informed that currently, there are no proposals for mergers, acquisitions or other alternatives to make these ports profitable. However, the government is exploring all options, such as tourism-related activities, the development of cruise tourism and the creation of transshipment hubs to improve the performance of these ports.

38. Mumbai Port – At its meeting with the Mumbai Port Authorities in Mumbai on 5th July 2023, the Committee discussed the new developments in Mumbai Port and plans for profitability. A fifth oil berth has been developed at Jawahar Dweep, off the Mumbai coast, with a capacity of 22 MMTPA, the largest among all Major Ports. A third Chemical berth is being constructed at Pir Pau Jetty in Mumbai. Fish Jetty is being expanded with the Centre's funding to reduce the waiting and berthing time for fishing vessels. A dedicated goods rail line had been proposed from Wadala to Kurla. However, the project was only half completed because it involved the rehabilitation of Project Affected Persons, and the matter was under discussion with Railways.

39. The Port has 33,544 pensioners, and the pension fund liability is more than Rs. 13,000 crores. The Port authorities also informed that the Port is in a transitional phase. Due to the nearby JNPA port, there was no scope for container or any other cargo except for liquid bulk cargo. The Port had a large Ship Breaking facility second only to Alang, which is almost closed now. When enquired by the Committee regarding the proposed solution to the financial problems being faced by the port, the Port authorities informed that the Mumbai Port has some land bank and the only solution for this Port is the monetization of land by way of township development around the port area. Tourism-related activities like cruises, marina, water parks etc can be developed to further its economic prospects.

40. Upon enquiry by the Committee about the cruise tourism facilities, the Port authorities informed that an International Cruise Terminal with a facility of handling cruises up to 5000 passengers was being constructed on EPC basis and was expected to be completed by October 2023. In 2021-22, the traffic handled was 47 cruise ships with 98,342 passengers and is expected to increase up to 500 cruise ships with a capacity to handle 7,50,000 passengers per annum after the completion of the new Cruise Terminal.

41. A proposed Ropeway on the Eastern Waterfront development between Sewri and Elephanta Island is going to be the world's longest Ropeway over sea. However, requisite clearance from ASI is awaited.

42. Though the Ropeway may not damage the Elephanta Caves, yet as per the stipulation being enforced by the ASI, there should be at least 1 km distance of the Ropeway from the Caves. The project is, therefore, currently 'on hold' and the same will be resumed only after the passage of The Ancient Monuments and Archaeological Sites and Remains (Amendment) Bill in Parliament.

43. The Committee notes the huge pension liabilities of the Mumbai port. However, it feels that such liabilities did not emerge in a day and are known from the time it got accumulated. Necessary contingency planning should have been effected and due mechanism put in place. The Committee appreciates that the port has now limited induction to technical and professional posts but notes that the present sanctioned strength of port employees at 7,462 is still much higher than JNPA and private ports of Mundra and JSW Jaigarh.

44. The Committee observes that automation being critical to productivity enhancement is also necessary to reduce the staff strength of the port. But, the digitalization process is still ongoing in the port with Port Enterprise Business System, GIS-based Estate Operations Management System, and Integrated Access Surveillance System. The Committee recommends that the Port implements the digitization and automation programme in a time bound manner without any further delay.

45. The Committee also observes that expansion in Cruise Tourism after completion of the International Cruise Terminal would boost the revenue accrued significantly. However, the Port should adopt proactive marketing strategies for promotion of cruise tourism by building appropriate interface with relevant stakeholders. The Committee observes that the Ropeway project has innate potential for tourism promotion and recommends that the Port may take up with the ASI for early resolution of the issue.

46. The Committee observes that the Mumbai Port has a sizeable land bank and recommends that land monetization options may be explored in the interest of creating a credible industrial ecosystem that supports the Port while strengthening its resources.

47. Cochin Port - The situation and possible solution for Cochin port is identical to that of Mumbai Port, that is, legacy pension liabilities and less scope for diversification of cargo. For the year 2022-23, the Capacity utilisation of Cochin Port was only 42.46%. Cochin Port has land for monetisation and a container terminal that can be developed as a major transshipment hub. However, Cochin Port may face severe competition from the under-construction Vizhinjam port, which is more favourably located with a draft of 17.00 m plus, making it an ideal transshipment hub.

48. The Committee observes that Cochin port has much the same problems as that of the Mumbai port. Like the Mumbai port, land monetization could be one of the solutions. The Committee has learnt from media reports that the port is planning to lease land for logistics-related activities and recommends that the port may make all concerted efforts for maximum land monetization. The Committee has also learnt that the port plans to change the system of granting concessions in vessel-related charges to ships calling at International Container Transshipment Terminal (ICTT) by shifting to a cargo-based discount scheme instead of a call-based discount scheme. The Committee observes that due to the economic crisis in Sri Lanka, many ship operators would divert their ships to Cochin, and the port should take advantage of such an opportunity by realigning its strategies. The Committee desires to be apprised of the Concessions in Vessel-Related Charges (VRCs) offered to Containers and the impact thereof. However, two Members of the Committee opined that the process of land monetization should not be done through giving control of valuable land held by the Cochin Port Trust to private monopolies and businesses. The port trust should use the land productively and produce profits through its initiatives and not hand over the valuable public land to private parties.

49. Mormugao Port - The financial position of the Mormugao Port at Goa is far from satisfactory after the Hon'ble Supreme Court ruling prohibiting the iron ore mining. As a result, cargo handling reduced drastically from 43 million MT to 17.5 MT. The Port's financial position got so severely impacted that adequate money could not be put in for the pension fund of its 6,500 pensioners. At the Committee's meeting with the Mormugao Port Authorities in Goa on 8th July, 2023, the Port Authorities assured the Committee of the timely payment of pensions, which were presently being made from the Operational income. A Rs. 2400 crore pension fund is being developed for the future and every year, some amount of funds were being transferred to the pension fund. The pension was likely to be replenished if the old mines were revived after environment clearances and if the iron ore cargo increased to 25-30 million metric tons in Goa for four-five years.

50. At the abovesaid meeting in Goa, the Port authorities were asked about the alternate plans for the port if iron ore mining was not revived. The Port Authorities informed that iron ore cargo from Karnataka was also possible, but to be financially viable, transporting a large amount of cargo by rail was essential. Land is also available in Goa, but not in a prime area. However, the recent connectivity with the airport in Goa by a six-lane highway is an added advantage for the port.

51. Marketing efforts, modernization of Port infrastructure, development of cruise terminal, and ease of doing business measures such as RFID-based access control, NLP-marine, etc. are some of the measures taken by Mormugao Port to attract additional cargo volume

52. The Committee observes that the iron ore in Goa is of low-grade material for which beneficiation needs to be done before it is exported. Moreover, a grade of only up to 62.5 per cent can be exported. The Committee observes that the Mormugao port

relied heavily on the revival of iron ore export for its sustenance. As dependence on one commodity is laden with risk for any port, the Committee suggests that the port explores the possibility of other commodities, like bauxite, gypsum etc. from Goa and other neighboring States for transportation. The Committee observes that the Mormugao Port authorities had informed that transportation of iron ore cargo from Karnataka could be a possible alternative in case the iron ore mines in Goa were not revived. The Committee feels that as there are ports like Krishnapatnam, Kakinada and Vishakhapatnam which can handle the cargo, it is unlikely that interstate cargo would come to Mormugao port unless attractive rates and concessions are offered by the Port. The Committee recommends that the Mormugao Port may put in place, proactive strategies to attract cargo from neighbouring states.

53. Regarding the development of the cruise terminal, at the meeting in Goa with the Mormugao Port Authority, the Ministry of Tourism, the State Government of Goa and various Tour Operators, the Committee was informed that there are only day cruises operating at present. The Committee had enquired about media reports on Goa port being dropped from the cruise circuit of three top cruise liners. The Committee was informed that there had been an incident with one cruise liner due to an altercation with taxi drivers at the port gates. As such, the issue had been taken up with the Goa government. There was now better coordination with all parties, including the taxi drivers. The Committee observes that globally, the cruise industry was dominated by a few companies and such incidents would mar the prospects of Goa in the international cruise circuit. The Committee observed that the long and beautiful coastline of Goa presents huge potential for cruise tourism. The success of the cruise industry would depend on having an ideal ecosystem in which local conveyance plays a major role.

54. Observing that the local conveyance in Goa was a State wide problem, the Committee recommended that solutions like the development of an app like “Savari” of Kerala which every taxi driver could join in Kerala, may be developed for Goa too.

ISSUES IN OTHER MAJOR PORTS

55. The Ministry also informed that Government ports have certain limitations compared to private ports. Though the Major Port Authorities Act has provided for tariff fixation like private ports, a major port cannot offer differential rates to different customers to attract them. Certain ports make huge profits because they are favourably located to handle large cargo volumes and have better connectivity. On the other hand, there are ports struggling to attract cargo.

56. The PPP model, however, has been very successful in the ports as it has brought up productivity, more cargo and revenues. The PPP model has the additional advantage of funding for better mechanization and better marketing strategies to counter the private ports. The thrust is on moving towards landlord model of port. Here there is no costs of operation to the Authority as the PPP operator carries out the entire port operations.

VISHAKAPATNAM PORT

57. Visakhapatnam Port is the 3rd largest Port in the country by capacity and 4th largest by traffic. However, its utilisation of capacity is at just 54%, much lower than Kolkata (71%), Mumbai (76%) and JNPA (74%). Upon query of the Committee, the Ministry informed about the following issues in the Port:-

- Visakhapatnam Port has very old infrastructure. The berth layout is outdated and the back up area needed for cargo handling is totally inadequate. The Port must invest heavily in increased mechanisation, upgrading the drafts, equipment, tugs, port railways and roads.
- Open storage of bulk cargo in Visakhapatnam Port is causing pollution issues. There is an urgent need to develop covered sheds for handling bulk cargo to insulate the public from fugitive dust completely. Also, all manual handling of bulk cargo must be phased out or limited to ensure that fugitive dust emissions are controlled.
- Volumes handled at Vizag General Cargo Berth (VGCB) have been constrained by bottlenecks around the evacuation of cargo, mainly due to the paucity of railway rakes in the region and limited space made available by VPA for cargo storage.

58. The Committee was informed that Strengthening and Mechanization of Berths, Improvement of Rail / Road connectivity and Logistic Improvement were being undertaken to improve the performance of the Port (Details at Annexure VI).

PARADIP PORT

59. Paradip Port is the largest cargo-handling port on the east coast and ranked first last year in terms of productivity. Out of 19 berths, there are six berths under PPP mode and all berths will be mechanised by 2030, which is the only way to improve productivity for a bulk handling port. Mechanisation will also keep pollution under control. Pollution cannot be controlled by traditional semi-mechanised methods in coal and iron ore handling, as it is a highly dusty cargo. Paradip Port handles, at any point in time, almost two to three million tonnes of coal, which is stored in the port yard. The growth rate of Paradip Port was 17 per cent last year, which is the highest growth rate in the country. Upon query of the Committee, the Port authorities informed that the port has a very lean strength of only 520 people and about 135 people in handling along with 3000 contractual employees. After mechanisation, the employees will be diversified in other jobs.

KANDLA PORT

60. The largest port in the country in cargo handling, the port handled 137 MT of cargo last year, and this year's target is 150 MT. Massive investments in infrastructure have been made in new roads, lighting, godowns, housing and railway. Three years before, the CAPEX was 250 crores. Last year it was 671 crores and the target this year is 930 crores. As the level of mechanization in the berths was low, the berths were being mechanized by the port itself or on PPP mode. The Kandla port has the biggest investment in the port sector regarding the

Tuna Tekra Container Terminal. This will be a Terminal with draft of 18 mts able to handle the biggest ships except mother ships and will have a productivity of 2.19 Million TEUs per year. Upon query of the Committee regarding reports of large-scale smuggling of drugs taking place in the country through ports especially from Kandla Port, the Port authorities informed that the norms which have been laid by the law enforcing agencies like the Narcotics Control Bureau are enforced like scanners or narcotics sniffing dogs that have to be placed at the ports. Facilities have been provided at Kandla for marine police, the CISF, and customs to monitor the movement.

61. The Committee notes that while the Mumbai, Cochin and Goa ports have faced financial difficulty due to some unique issues, most of the Major Ports suffer from common problems of outdated infrastructure, low capacity utilization, and poor performance parameters. The Committee observes that mechanization, connectivity and good evacuation capacity are essential for increasing the performance of the ports and recommends that the Ports may endeavour to do the same with PPP partnerships.

62. The Committee notes the benefits of the PPP model and recommends that all Major ports may make all efforts to achieve their targets of PPP partnerships as per the Maritime India Vision to improve their productivity and competitiveness.

63. The Committee also recommends that the Ministry makes every effort to implement the Landlord Port Model in the Major Ports.

64. The Committee also observes that land is one of the crucial resources of the port, which can be gainfully monetized. The Committee has been informed that Ports have allotted the land parcels for various purposes such as viz. liquid storage terminal, Godown / Warehouse, Salt Industries and Port-related Activities, etc.

65. The Committee has been informed that the total land area available with the 12 Major Ports is about 271043 acres. The land leased or sold by various Major ports is as given in Annexure – IV.

66. The Committee desires to know about the land monetization plans of the Major Ports, and whether any of the Ports have plans for industrial townships in the available port lands. Leasing port land to private investors on PPP basis for setting up of industries/facilities would go a long way in promoting the Port Led Industrialization agenda of the Government while accruing sizeable revenues for the ports to address their resource concerns.

III. PORT MECHANIZATION AND MODERNIZATION

67. The level of mechanisation at Indian ports, particularly major ports, is limited, and most of the commodities are handled by conventional means. This has meant significantly higher turnaround time and cargo dwell time at these ports than the international standards,

thus, high overall logistics costs. Increased mechanisation of berths equipped with high-capacity cranes, conveyor systems, grab unloaders, etc. have the potential to improve overall productivity. The Major Ports, however, are also constrained by the non-availability of funds to bring in large-scale mechanisation at their existing berths and depend on stevedores (persons employed at docks to load/unload cargoes) to handle cargoes. Further, the cargo throughput should reach a threshold value for the mechanisation of berths to make the investment a viable proposition. Some ports have outsourced the requirement by inviting the private sector to invest, install and operate mobile harbour cranes, etc. while other ports have adopted the PPP route to achieve this objective. **Annexure-V** shows the status of mechanisation of berths at Major Ports.

68. The Ministry informed that the mechanisation of berths is a continuous process, and complete mechanisation of all berths in most of the Major Ports is expected to be completed by 2030. As a part of the National Monetisation Pipeline Plan, Ports and the Government have proposed privatization of the existing berths. Under this Plan, 31 port projects involving mechanisation and modernisation have been identified to be developed on PPP basis with an estimated capital cost of Rs. 12,828 crores to be completed by 2024-25.

69. The Committee observes that only 35% of total berths are mechanised in the Major Ports. Only Kandla port has all of its berths mechanised.

70. The Committee finds it difficult to appreciate the position of the Ministry that all berths in the Major Ports would be mechanised by 2030, i.e. in a span of seven years. The Maritime Vision Plan is to position India as a top maritime nation. For this, the Ministry should make all efforts for mechanisation and automation of all the Major Ports by that year.

71. The Committee understands that the cargo should reach a threshold for financial viability for the mechanisation of berths. The average capacity utilisation of the Major Ports is 49%, and many of the Major Ports are operating at much below this average. The Committee wishes to know how the Ports plan to increase their cargo handling capacity in the next few years to make the investments viable in the sphere of mechanisation and modernisation.

72. The Committee notes that 31 port projects involving mechanization and modernization have been identified to be developed on PPP basis to be completed by 2024-25. The Committee would like to have the list of said 31 projects and the percentage of the total berths in all Ports which will be covered under this project.

73. Mechanization of berths remained at the core of the measures taken by the JNPA in reducing its Turn Around Time from 52 hrs to 28 hours in a span of 05 years. The Committee recommends that the Ministry as also the Major Ports take expeditious

action for the time-bound implementation of the 31 mechanisation projects and also draw up actionable plans for the mechanization of the remaining berths at the earliest. The Committee also recommends that the Major Ports may take the initiative to replace the old, outdated equipment at the old berths with modern equipments so as to enhance their productivity.

IV. DEVELOPMENT OF MEGA PORTS, NEW PORTS AND TRANSHIPMENT HUBS

74. Across the world, mega ports are cropping up, with better infrastructure, faster operations, lower operational costs, and higher capacity to handle large cargo volumes and mega-ships.

India needs to have mega-port and terminal infrastructure to handle Ultra-large ships, that seek speedy unloading of the large volumes they carry. Ports need a higher draft, several large cranes, better yard management capability, increased automation, more extensive storage facilities, more inland port connectivity and enhanced labour productivity.

75. The Ministry informed that India has 05 Major Ports and 2 Non-Major Ports with over 100 MTPA capacity. Two existing Major Ports i.e. Deendayal Port and Paradip Port, have been identified to be transformed into Mega Ports having cargo handling capacity of 300+ MTPA. A new Vadhavan Port will also be developed as the country's Mega Port, having a cargo handling capacity of about 300 MTPA.

76. The Ministry informed that the key challenges in creating mega ports are Land Acquisition, Environmental Concerns, and Financing and detailed the various steps to address these challenges:-

- Identifying locations which are possessing natural drafts up to 24 m with the availability of huge land banks and scope for developing industrial complexes close by and the required ecosystem like Special Economic Zones, Industrial Zones, Free Trade Warehousing Zones, Container Freight Stations, etc.
- Stringent environmental policy/regulation is enforced to minimize the impact of port development on ecosystems.
- Huge investments are required for developing such mega ports, and the viability of developing such ports has to be established with grants/viability funding from the Government.
- The Government has prioritized the development of port infrastructure, including the creation of deep draft channels, the construction of modern berths, and the establishment of storage facilities.
- Connectivities by water/rail/road to the hinterland need to be established. Linkage through dedicated rail freight corridors will be of help.

77. **The Committee observes that the economies of scale in maritime trade have given rise to Mega ships or Capesize Ships, which naturally require larger terminals and ports. Indian ports presently lack the infrastructure to deal with Capesize ships**

which are vital to international maritime trade. As Indian ports are gearing up to handle these giant ships by increasing their draft depths and modernizing the ports, India should also plan for developing Mega Ports to handle the ever-increasing size of vessels and Containers. The Committee also recommends that while planning for the mega port, the Ministry may also arrange for linkages with the local economy, creating industrial clusters to be economic drivers for the region.

DEVELOPMENT OF VADHAVAN PORT

78. The Ministry informed that the Union Cabinet had accorded its 'in-principle' approval on February 05, 2020, for setting up a deep draft sea port at Vadhavan near Dahanu in Maharashtra. The port is about 150 km north of Mumbai and has a deep draft of about 18-20 metres, enabling it to cater to the largest capesize vessels. The Mumbai Port, a 150-year-old port in the middle of the city, is almost saturated. At the Jawaharlal Nehru Port in Navi Mumbai, there is a scope for expansion of only one additional terminal, which is to be built in the sea. So the Vadhavan project was conceived to have a deep draft port to take the load off JNPA and the Mumbai port. The Vadhavan port will be developed on the "Landlord model" as a Mega Port with a projected capacity of 308 MTPA

79. JNPA has entered into a joint venture agreement with Maharashtra Maritime Board (MMB) and has established a limited liability company registered under the Companies Act, 2013 namely Vadhavan Port Projects Ltd. (VPPL), with 74% and 26% equity stake, respectively to execute the Project. The total estimated cost of the Project is Rs. 65,544.54 crores. The Ministry of Environment, Forests and Climate Change asked for the conduct of 17-18 kinds of studies on Environmental Impact Assessment and all of them except one have been conducted. However, Environment Clearance is still awaited.

80. The port is located in Dahanu Taluka, and the Dahanu Taluka Environmental Protection Agency has to hold a public hearing and furnish its NOC. The matter is also pending in the Hon'ble Supreme Court. The last hearing of the Hon'ble Court was held on 25.04.2023, and the case was adjourned.

OBSERVATIONS/RECOMMENDATIONS

81. **The Committee observes that most of the Major Ports of India were constructed more than 50 years ago, some a century old. JNPA, the 12th Major port of India was developed in 1989 and no other major port has been developed in the last three decades. The Vadhavan port, with its advantages of a natural draft of 18-20 m, proximity to the Mumbai Port and JNPA and to the upcoming Delhi Mumbai Freight corridor, was a much-needed addition to India's Major Ports.**

82. **The Committee has learned from media reports that the Dahanu Taluka Environment Protection Authority (DTEPA) has now granted No Objection Certificate (NOC) for the Port. The matter being sub-judice, the Committee would like to be informed of any further developments on the issue.**

DEVELOPMENT OF TRANSHIPMENT HUBS

83. The Committee observes that Indian Ports handle only 25% of Indian transshipment cargo, and international ports such as Colombo and Singapore handle the rest, leading to loss of revenue opportunities for India. The transshipment at ports outside India mostly happens regarding container traffic generated on India's South & East Coast. Colombo accounts for 48% of Indian international cargo, Singapore 22% and Malaysia's Port Klang 10%.

84. Ports on India's west coast are mostly gateway ports that send cargo containers directly to destinations. In contrast, those on the east coast rely on transshipment at nearby hubs. Only a few ports in south India have the water depth to match global cargo handling efficiencies and function as a transshipment hub. The main ports currently handling the transshipment cargo are Jawaharlal Nehru Port, Cochin Port, V.O. Chidambaranar Port, Kamarajar Port, Syama Prasad Mookerjee Port, and Mumbai Port.

85. Exporters and importers in south India incur an additional charge of ₹ 5,000- ₹ 6,000 per TEU due to extra port handling at transshipment hubs, making them less competitive, adding huge costs to the economy and resulting in Indian ports losing as much as ₹ 1,500 crore per year in business. India is also losing the opportunity to become a large hub for Asia–Africa, Asia-US/ Europe container traffic trade.

86. The major challenges in developing Indian ports as transshipment hubs are as follows:

- (i) Lack of sufficient drafts at Indian ports is one of the main reasons why big ships carrying transshipment containers cannot call at Indian ports. The shipping industry is moving towards mega-size vessels and above. 16 – 18m drafts are required to handle these vessels, while a Capesize vessel requires 18m+ draft.
- (ii) Absence of modern and highly sophisticated equipment like Dual Cycle Cranes and AGVs -which can deliver incremental productivities in less time.
- (iii) Many Indian ports do not enjoy the locational advantage like Colombo Port which enjoys a highly critical location advantage due to the proximity to the East-West Trade route, which is only 19 nautical miles away from the main route.
- (iv) With efficient cargo services and high operational performance, Colombo Port offers competitive Terminal Handling Charges, which makes it an attractive Hub in the region.

87. With the focus on self-reliance from a cargo trade perspective, Maritime India Vision 2030 (MIV 2030) has set the target of achieving 75% of the total transshipment volumes at Indian Ports. Developing a transshipment hub in India will create new revenue streams and solidify the presence of Indian ports on global maritime routes.

88. The following projects are under implementation to develop transshipment hubs:

A. Tuna Tekra Terminal:

89. The Deendayal Port Authority is developing a Container Terminal at Tuna Tekra on BOT basis under PPP mode for Rs. 4540 crore. The project was awarded on 01.03.2023. It will help Deendayal Port to emerge as a container transshipment hub.

B. International Container Transshipment Terminal (ICTT), Cochin:

90. The ICTT at Vallarpadam in Cochin was developed on BOT basis, and commissioned in 2011. It is the first transshipment terminal in India and is operated by DP World. The Government of India invested Rs.1,700 Crore for Capital dredging, providing road and rail connectivity to ICTT, while the BOT operator, M/s. DP World invested Rs.1,100 Crore towards infrastructure and equipment. Transshipment facility with ICTT at Cochin is already operational. However, the Terminal was designed with a draft of 14.5m. To accommodate deep draft vessels, the upgradation of the facility is being undertaken by the Port and PPP concessionaire. The Terminal, with 605m quay length, has a capacity of 1 Million TEUs. During the year 2022-23, the Terminal handled 0.70 Million TEUs out of which the Transshipment Volume during the same period was 104666 TEUs.

GALATHEA BAY

91. The Ministry has identified Galathea Bay in Andaman & Nicobar Islands to be developed as International Container Transshipment Port. Some of the biggest ships pass through Galathea Bay, and there is a need to have a hub which serves ports all along the Bay of Bengal. The port would have a draft of about 16 metres and, in the first phase, would handle 4 million TEUs in Container terms, ultimately going up to 16 million TEUs. Environmental clearance had been obtained for this port. However, after an order of the National Green Tribunal, a committee has been constituted under the Chairmanship of Secretary, Ministry of Environment, Forest and Climate Change to study the entire Environmental Clearance again and give their comments in two months.

VIZINJAM

92. Vizhinjam Port in Kerala is being developed as Transshipment facility by the Government of Kerala with Viability Gap Funding support from the Ministry of Finance, Government of India.

VOC

93. VOC Port is also planning to Develop “Berths I to IV (Outer) as Container Terminals” on PPP mode at the estimated cost of ~INR 7000 crore. This facility is proposed to cater to both Gateway Traffic and Transshipment cargo. The Committee notes that India already has one Transshipment port in Cochin (Vallapadam) and another coming up in Thiruvananthapuram (Vizhinjam), which is just 225 km from Vallarpadam and is already running at less than normative capacity. Upon query of the Committee regarding the distance required between two ports, the Ministry had informed that the proposal to keep a minimum distance separating ports was earlier discussed in the Maritime Development Council meeting. However, a conclusion is yet to be reached on this aspect. The Ministry has also

informed that stipulating a minimum distance between two ports can be counterproductive since what determines the need for a port is the hinterland it can service and its industrial activity. Therefore, having two ports relatively close to each other may be perfectly justified. More importantly, it also prevents monopolistic situations where the port users can be exploited. Therefore, ideally, restrictions should not be imposed for the development of any new port based on the proximity of another port. However, the decision to construct a new port should be taken after adequate assessment and studies about its feasibility.

94. The Committee notes the reply of the Ministry but feels that the distance between two ports should be a matter of consideration as it impacts the overall productivity of both the old and also the upcoming ports. The Committee recommends that the distance between an upcoming port and another port in the region serving the same hinterland should form a part of the study before establishing the need for a new port.

95. The Committee also notes the reply of the Ministry regarding the environmental impact studies done and conservation plans proposed in the upcoming Transshipment Hub at Galathea in Great Nicobar. As the proposed Hub is in an ecologically sensitive seismic zone, the Committee exhorts the Ministry to evaluate all ecological considerations before project implementation.

96. The Committee notes that one of the main problems obstructing the development of Transshipment in India emanates from the lack of deep drafts of Indian ports, especially those on the Eastern Coast and Southern coast. While dredging is necessary to deepen the drafts, the costs of dredging are charged to the shipping lines, adding to the cost of port calls in India compared to the foreign ports, thus, discouraging big ships from coming to Indian ports. The Committee has been informed that foreign ports do not bear the costs of dredging, which are borne by respective Government.

97. Upon enquiry by the Committee, the Ministry acknowledged that the Syama Prasad Mookerjee Port, Kolkata, receives a dredging subsidy from the Government. But, the other Major Ports are responsible for their dredging expenditure, both capital and maintenance. To offset the higher Vessel Related Charges (VRCs) on account of dredging cost, the Government is working to improve the efficiency of Indian ports by investing in new infrastructure and technology, which can help reduce the cost of shipping goods and make Indian ports more competitive. The Committee desires to know why only the Kolkata port receives a dredging subsidy from the Government. The Committee would like the Ministry to give a comparative data on the number of foreign governments which bear the cost of dredging and the number of foreign ports which bear the cost of dredging themselves without any government help.

98. If the former is a practice worldwide, the Committee recommends that the Ministry may explore the possibility of government support for dredging in Major Ports

so that a globally uniform practice is followed so as to make our ports cost effective and competitive.

99. The Committee also notes that solutions like Floating Cranes, which unload the cargo from Capesize Ships anchored in mid-sea into barges that take the cargo to the port, have helped ports like Kandla, a low draft port, to improve productivity and increase cargo volumes. The Committee desires to know if such solutions can be applied at other ports. In particular, it recommends that the Ministry looks into the solutions where dredging costs are prohibitive.

100. The Committee also observes that in the early 2000s, the Container giant Maersk had shifted to the Tanjung Pelapas Terminal in Malaysia from Singapore, which is one of the world's largest transshipment hubs, which changed the face of the transshipment business in the entire region.

101. The reason behind the move was stated to be the offer of a stake to the Company. The Committee observes that the crisis in Sri Lanka offers an opportunity to divert Transshipment operations from Colombo and recommends that the Ministry explores the possibility of offering such attractive package deals to Shipping Corporations to incentivize them to transfer their transshipment operations to Indian ports.

102. The Committee recommends that the digitization of ports be given utmost priority so that automation would reduce transshipment cost.

103. The Committee also recommends that involving the private sector by way of investment in infrastructure, provision of ancillary services and streamlining of Immigration and Customs formalities, would be crucial for developing Transshipment Hubs.

V. PORT CONNECTIVITY

104. Port connectivity is one of the critical enablers for improving the efficiency of the maritime logistics ecosystem. By linking the port network with other connectivity modes such as rail, road, and air, India's port trade competitiveness can grow exponentially, giving it a significant edge.

105. The Committee has been informed that all 12 major ports are well connected by rail and road. As such, new projects are continuously taken up from time to time to augment connectivity in sync with the port development plan.

106. Under the PM Gati Shakti, a Comprehensive Port Connectivity Plan (CPCP) was prepared and shared by Department for Promotion of Industry and Internal Trade (DPIIT) in September 2022, based on consultation with Major Ports, State Maritime Boards, MoRTH / NHAI, MoR / Indian Railways, through coordinated efforts made by all stakeholders. CPCP

incorporates total of 298 port connectivity projects, of which 191 are Sagarmala Projects (101 road and 90 rail projects), and an additional 107 road and rail connectivity infrastructure gaps (60 roads and 47 rail).

107. As of date, under Sagarmala Programme, 46 rail and 23 road connectivity projects have been completed, and 31 rail and 35 road connectivity projects are under implementation by various Implementing Agencies such as Indian Railways, Major Ports, Maritime Boards, NHAI / MoRTH, and State Road Development Companies. These projects aim to enhance road and rail connectivity to major and non-major ports.

108. The Committee has also been informed that the Dedicated Freight Container Corporation of India Limited (DFCCIL) has connected or will be connecting in future the Western and Eastern Freight Corridors with the Major Ports in both the Coastal areas. The connectivity provided by the DFCCIL and future plans is placed in Annexure –VI.

109. The Committee appreciates the initiatives of the DFCCIL for building the network of freight corridors, connecting the Major ports, which will present tremendous advantage in the connectivity of Major Ports and enhancing their productivity.

110. The Committee has been informed that although most ports have a reasonably good 04 Lane Road Connectivity, Rail congestion is a concern in certain sectors, which affects freight movement. Combined with this, the availability of rakes has also adversely impacted the evacuation of cargo from/to ports.

111. The Committee had also been informed in its meetings that despite having the requisite infrastructure and land, the Jaigarh port could not handle containers due to lack of major rail connectivity. The Committee observes that one of the main factors for the low capacity utilization of the Ports pertains to absence of road and rail connectivity to the hinterland to cater to the emerging demands. The need for good rail and road port connectivity for hassle-free cargo transport must assume importance. It should be the priority of the Ministry to ensure proper connectivity to all ports, which would drive up the cargo traffic and increase the revenues from this sector. The Committee is pleased to note that the PM Gati Shakti Programme is taking up 101 connectivity projects for both Major and Minor Ports, and the Sagarmala Programme is also addressing the road and rail connectivity infrastructure gaps and recommends that the Ministry may ensure that all such projects are implemented on a priority basis in a time-bound manner.

112. The Committee recommends that while conceiving a Port project, connectivity issues should invariably form part of the integrated planning for the project at the DPR stage and involve all the agencies like NHAI or the Ministry of Railways. The Committee has been informed at its meetings that while the mechanism for such

consultation exists, there are concerns with regard to implementation. The Committee urges upon the Ministry to look into the concerns and ensure that all stakeholders and agencies are involved while planning for connectivity in a port project.

VI. PRIVATE PUBLIC SECTOR PARTNERSHIPS IN THE PORTS SECTOR

113. The Ministry informed that the Maritime India Vision sets a target that, by 2030, more than 85 per cent of the cargo handled at the major ports should be by the PPP operators or the concessionaires. Currently, around 52-53 per cent of the cargo handled at the major ports is being done by the PPP operators.

114. Accordingly, the Ministry has been constantly working towards attracting private investment for infrastructure development and inducing healthy competition in Port operations. For this, the Ministry has identified a pipeline of 81 PPP projects with a total value of INR 42,400 crore from FY 2021-22 to FY 2024-25. Out of this, 12 projects of value ~INR 10,520 crore have already been awarded. Whereas the remaining projects are at various stages, i.e. under development/Inter-ministerial Consultation/Bidding Stage.

115. The following investments have been made through PPP mode in the major ports during the last five years-

Year	No. of Projects	Value (INR Crore)
2018-19	2	887.11
2019-20	0	0
2020-21	1	900
2021-22	4	722
2022-23	8	9,553.79
Total	15	12,065

116. Upon enquiry from the Committee, the Ministry informed that a total of 173 projects are at various stages of implementation at Major Ports in India, with a total cost of Rs. 111, 270 crore (approx).

117. Details of the eight projects worth Rs. 9,544 crores which were awarded in FY22-23, have been placed in **Annexure -VII. Annexure – VIII** shows the number of Sagarmala Projects and their status as on March, 2022 under the Major Ports.

118. The Committee observes that the investments through PPP mode in the last five years are a mere 8% of the total investments made in the projects at Major Ports. The Committee desires to know the status of the seven projects awarded from 2018-19 to 2021-22.

119. Regarding the Pipeline of 81 PPP projects for FY 2022-21 to FY 2024-25, only 12 projects, which is less than 15%, have been awarded by 2022-23, leaving 85% of the 81 projects in the Pipeline to be awarded till the next financial year. The Committee also

observes that 298 projects have been taken up under Sagarmala Scheme in the Major Ports out of which 140 have been completed, 78 are under implementation, 26 have been sanctioned, and the rest are still in planning stage. The Committee feels that the Ministry is not making enough efforts to achieve the targets set in the Maritime India Vision 2030 regarding PPP projects.

120. The Committee notes that the Comptroller and Auditor General of India, in their 2015 Performance Audit report on the Public Private Partnership Projects in Major Ports, had commented that the PPP mode of implementation suffered delays mainly due to protracted time taken for finalization of tenders, time taken for obtaining security clearance of shortlisted bidders, time taken for the signing of Chartered Accountant (CA) and litigations by bidders during the tender process. The Committee observes that with 69 projects yet to be awarded, the Ministry needs to ensure that there is timely implementation of the projects to achieve the targeted timeline. The Committee understands that one of the primary objectives of resorting to PPP is for faster development of infrastructure, and delays in implementation of PPP projects defeat this very objective. The Committee recommends that the Ministry takes efforts to increase the percentage of PPP investments in major ports and speed up the implementation of PPP projects in the Pipeline which are still in the under development/Inter-ministerial Consultation/Bidding stage.

121. The Committee desires to know whether the PPP Cell in the Ministry is monitoring the projects on a regular basis and the effectiveness of such monitoring on the PPP projects.

122. As required by the Committee, the Ministry provided statistics relating to the comparative performance of berths operated on PPP basis to that of the Port's own berths, which is placed at Annexure-IX. The Committee observes that the PPP berths, though less in number, outperform the Port's own berths in most ports. For example, in Chennai port, the 07 PPP berths handle a sizeable 63.68% of the total traffic, while the Port's own 19 berths handle only 36.32%. In New Mangalore Port, the 03 PPP berths handle a whopping 82.22% of the total traffic, while the Port's own 14 berths handle a meagre 17.78%.

123. The Committee observes that a capacity addition of 103.03 MT has been made to the Major Ports in the last five years, in which an investment of Rs. 12,065 crores in 15 projects is under PPP mode. The Committee desires to know the contribution of PPP projects to this capacity addition in the last five years. The Committee also desires to know the planned capacity addition of the remaining 81 projects in the Pipeline for the years FY 2021-22 to FY 2024-25.

124. The Committee has been informed that there is no dedicated investment mechanism for the maritime sector or even the infrastructure sector that impinges on

the viability of project. The Committee recommends that the Ministry may examine the need to create a dedicated Maritime Development Fund for long-term financing of PPP projects in the maritime sector.

VII. LOGISTICS AND EASE OF DOING BUSINESS

125. Upon query by the Committee regarding the high Logistics costs in India, currently constituting 13-14% of India's GDP, as compared to 9% in China and 8% in US and Europe, which drive up the overall cost of doing business in the Indian shipping sector, the Ministry informed that National Logistics Policy has been launched by DPIIT, Ministry of Commerce and Industry (MoCI) with an objective to lower the cost of logistics from its current 14% of GDP to less than 10% by 2022. The policy aims at making Indian goods more competitive while also promoting economic growth and expanding job possibilities. The Policy establishes a broad, multi-jurisdictional, cross-sectoral framework for the growth of the entire logistics ecosystem to address concerns of high cost and inefficiency.

126. In this respect, various interventions are being taken up by MoRTH including continued expansion of the National Highways network in the country and Bharatmala Pariyojana Phase 1 Project where approx. ~34,800 Kms road network is under Development. Bharatmala scheme is reviving the entire road development scenario and providing the required impetus for speedy implementation of new age highways and expressways thereby enhancing the speed of cargo movement across the nation.

127. Additionally, 35 Multi-modal Logistics Parks (MMLPs) on PPP have been identified by MoRTH for implementation. The MMLP at Chennai has already been awarded, and bids invited for MMLPs in Nagpur, Indore & Bengaluru; with another 10+ awards to be made by FY2025.

128. Moreover, Ministry of Railways is preparing comprehensive plans for multimodal connectivity to MMLP and Rail Gati Shakti Terminals. This will provide the much-needed impetus towards establishing cost efficient and seamless multimodal network for cargo movement in the country.

129. To bring down the overall cost of doing business, most of the major ports have taken steps such as concessions in vessel and cargo related charges and installation of RFID based access control system at gates for faster movement of trucks. Ports are also undertaking extensive mechanization of berths. Further, under Ease of Doing Business (EoDB), the ports have taken various measures in the areas like Infrastructure improvement, simplification of process and digitalization to reduce overall logistics time and cost.

130. The Committee observes that the main reasons for high logistics cost in India are:–

- The highly fragmented and unorganized nature of the Indian logistics sector especially in Tier II and III cities. Lack of big players to offer cost advantage of scale drives up the logistics costs, along with hampering the free movement of trucks and price

settlements.

- Absence of automation in logistics also leads to poor productivity. Unorganized players in the logistics market prefer to utilize the easily available high amount of labour rather than invest in technology and automation. The unorganized sector and lack of automation leads to low supply chain visibility and no means to reduce the waiting times.

131. In the ports sector the High Vessel related charges in the Major Ports were also related to higher maritime logistics cost -

132. The Committee was informed by the IPPTA in its deposition that the vessel related charges at Indian major ports are very high when compared to the charges at nearby non-major ports and foreign ports. The share of non-major ports in the traffic handled gradually increased from about 10% in the beginning of this century to about 45% now. Much of the cargo was the diverted cargo from nearby major ports.

133. High port tariffs make Indian ports uncompetitive compared to their global peers in their bid to attract more large-size direct calls. Rival foreign transshipment hubs of Colombo, Sri Lanka; Jebel Ali, United Arab Emirates; Singapore; and Port Klang, Malaysia, apply substantially lower marine charges than those at Jawaharlal Nehru Port Trust (JNPT), Cochin, Chennai, Visakhapatnam, etc.

134. Another charge which adds to the vessel related charges is the Light House Dues (LHD) – which is also very high compared to ports/hubs in neighbouring countries. A comparison of the LHD between Cochin & Colombo is given at **Annexure – X**.

135. The Committee observes that reduction in port charges is essential if maritime logistics costs are to be reduced. The Committee further observes that the Port Call costs for India and the Light House Dues are nearly four times than that of the ports of other countries. The Committee has been informed that Vessel Related Charges (VRCs) can be reduced only by reducing the Operating Expenses but due to the salary payments, legacy pension payments and the requirement of discount of 50% in case of cruise vessels for promotion of cruise tourism, most ports have very limited leeway of reducing the operating expenses. Therefore, reduction in Vessel Related Charges is an unsustainable proposition for ports.

136. The Committee observes that since it is the older ports which have legacy pension issues and most of the newer ports have mainly contractual employees and a fewer regular employees, pension liabilities cannot be cited as a universal contributory factor for high operating expenses. Besides, salary payments are obligation of every organization and cannot be a reason for high VRC. The requirement of 50% discount on cruise tourism is relatively recent and does not explain why the VRC has always been high in Indian ports. The Committee desires that the Ministry finds ways and

means to reduce Vessel Related Charges and Lighthouse Dues to lower the logistics costs. The Committee also reiterates its earlier recommendation that the Ministry may explore the possibility of the government support for dredging in Major Ports to curtail high VRC in ports.

137. Upon a query of the Committee regarding provision of ancillary services by ports, the Ministry had informed that all ancillary activities are happening at Major Ports through one agency or other. In case of PPP projects, the repairs and maintenance of the facility has to be undertaken by the PPP operator. Activities like Customs brokerage and freight forwarding are undertaken by the exporters/importers through agencies involved in such activities. Ports have to take feedbacks from their port users and find out if such services can be improved and accordingly take necessary action to implement them.

138. The Committee recommends that each Major Port may make every effort to provide ancillary services to its users to improve the value addition in its supply chain.

VIII. DIGITALISATION OF PORTS

139. The Committee was also informed that the Port Operating System (POS), Terminal Operating System (TOS) and the National Logistics Portal – Marine (NLP-M) have been implemented in all Major Ports.

Other major Digital initiatives that are implemented in Major Ports are as follows:

- Vessel Traffic Management System/Vessel Traffic System - to determine vessel positions, position of other traffic or meteorological hazard warnings and extensive management of traffic within a port or waterway.
- Enterprise Business System (Port Operation and allied system) - on cloud-based infrastructure to service delivery, operational excellence and transparency & Compliance.
- Online (Radio Frequency Identification) RFID System - to keep track of goods and the carriers, containers and pallets used to transport them.
- Online Payment System – a system to collect the port due seamlessly online and reduced transaction time.
- Weighbridge System – for the flow of weight information with multiple systems and avoid duplicate entries.
- Geo-Information System – To enable stakeholders to know the vacant land and submit online requests for allotment, etc.
- e-Office - Files/Receipt Management System with transparency along with security.

140. **Sagarmanthan Dashboard** for monitoring of Key Performance Indicators and Projects has been operationalised by the Ministry. A digital dashboard has been developed where all the information pertaining to projects, financial and operational performance and the daily performance of the ports, have been mapped on this dashboard, and the Ministry makes use of this dashboard on a weekly basis to review the project performance and progress in the projects being implemented by the various ports.

141. **Sagar Setu App** has been launched to give real time information on vessel related details and to facilitate digital payments of charges.

142. **National Logistics Portal (NLP) (Marine)** is a national maritime single window platform encompassing complete end-to-end logistics solutions to help exporters, importers, and service providers exchange documents seamlessly and transact business. It is operational at all Major Ports.

143. NLP marine has been very effective in increasing the ease of doing business and improving efficiency and transparency by reducing costs and time delays and achieving easier, faster, and more competitive offerings of services. Going ahead, this Marine/NLP interface will be integrated in the national level NLP and it will become an integrated common platform all across different modes of transport in the country.

Sagar Unnati

144. Sagar Unnati has been implemented as Dashboard for monitoring all Major Ports Key performance indicators like Turnaround Time, Traffic Handled, Average Output per Ship Berth day etc. for facilitating Ministry and IPA.

145. The data exchange is being carried out electronically in the PPP Terminals between various stakeholders like Customs, Port Authority, Shipping line, Container Freight Station and Beneficial Cargo Owner. Due to integration with customs, the cargos are getting cleared automatically through the systems without any manual intervention. The Terminals are also exchanging Codeco messages with Customs so that they will have information about the cargo gated in/Out from the system. The Terminals are receiving IGM, Shipping bills, SMTP, Out of charge, LeT export orders, Delivery Orders, Bill of entry & Allotment of Rotation number, etc. from customs, which enable automation of the clearance process. Berthing/unberthing details from port authorities are received without any physical paper transaction. Presently, UNEDIFACT message is being tested with shipping line through NLP Marine which will enable the eventual replacement of paper transactions with Shipping lines.

Port Community System (PCS)-

146. The PCS is a centralized web application which has already been introduced in the port sector that acts as a single window for port community members and stakeholders like Shipping lines/Agents, Surveyors, Stevedores, Banks, Container Freight Stations, Customs House agents, Importers, Exporters, Railways/CONCOR, Government regulatory agencies, etc to exchange messages electronically in a secured way. The objective is to achieve a paperless regime in the port sector and reduce time and cost in the ports sector. Now the PCS is being merged with National Logistics Portal-Marine which has wider coverage of stakeholders in the entire supply chain.

147. Following further automation/digital initiatives are in process of implementation (some partially under implementation) which will make the ports more productive and competitive:

- **Robotics** encompasses the use of robotics in container handling equipment such as automated mooring systems and automated ship-to-shore cranes. With automated ship-to-shore cranes, over 90% of the work duties are performed autonomously, with the final movement of the spread guided by an operator from a remote-control room.
- **Process automation** involves the use of technology to automate processes external to cargo handling. It typically involves gate systems in which Optical Character Recognition (OCR) and Radio Frequency Identification (RFID) automate the inspection, clearance, and tracking of people and equipment moving into, out of, and within a terminal, with supervision and exceptions handled from a control room.
- **Blockchain Technology** has the potential to revolutionize the maritime industry. Blockchain technology can play a significant role in faster, safer, secure, and transparent transactions and faster cargo clearance reducing costs and increasing efficiency in the maritime domain for all the stakeholders.
- **Big Data Analytics** have immense possibilities and applications in shipping industry as shipping involves massive operations which can generate a huge amount of data.
- **Automation and Artificial Intelligence** is used to power AI driven applications that accelerate decision making processes and workflows. For example container cranes at several ports are unmanned and pretty much fully automated. Aside from a few small processes, the whole operation is managed by computers. Moving forward, this could be used on a larger scale to speed up the shipping supply chain process.
- **Decision-making automation** involves using technology to guide and optimize decisions related to stowage and yard planning, container positioning, and vehicle and equipment scheduling. It involves intelligent terminal operating systems (TOS) technology to optimize planning, monitoring, asset utilization, and administrative tasks.

148. The Committee was also informed that increasing reliance on technology could also expose ports, ships, supply chains, etc. to cyber criminals, and hackers for stealing data, for ransom or to take control of ports and other vital assets as there have been such attacks on ships and the ports

i) The following steps are also undertaken to protect ports against cyber attacks, which are increasingly becoming an issue of concern in the maritime industry:-

- Establish Asset Management System
- Capacity Building on Cyber Security
- Implement Multifactor authentication on all accounts.
- Establish and Implement IT security policy
- Regularly updating the Software
- Use Strong Password as per the policy.
- Establish Security Operation Centre and analysis traffic log file

149. The Committee is pleased to note the initiatives taken for digitalisation as it will increase the efficiency and productivity of Indian ports, enabling them to compete on the global scale. Shipping has traditionally been a conservative industry, slow to adapt to technological changes, mainly due to the enormous and complex logistics chains characteristic of this industry. However, adopting new technology is critical to increase operational efficiencies and competitiveness.

150. The Committee notes with satisfaction the implementation of Port Operating System (POS), Terminal Operating System (TOS) and the National Logistics Portal – Marine (NLP-M) in all ports and the merging of Port Community Systems with National Logistics Portal-Marine. The Committee notes that other technologies like Blockchain Technology, Automation, and Artificial Intelligence are in the process of being implemented. The Committee would like to know the status of implementation of cutting-edge technologies like Digital Twin, which can be used to monitor and manage port operations, fleet management, optimization of the end-to-end-supply chain, Advanced Monitoring systems to monitor the state of the weather, Advanced Sensor Technology, Augmented Reality for maritime training, 3D Printing and other related technology-based applications.

151. The Committee notes that the Port Authority of Singapore (MPA) has opted to build a 3D Printing and Additive Manufacturing Centre (Centre of Excellence in Modelling and Simulation of Next Generation Ports C4NGP) that will allow it to build a digital twin port. Singapore has recently inaugurated the Tuas Port which when fully operational in the 2040s, is expected to be the world's largest fully automated container terminal in a single location, with an annual handling capacity of 65 million TEUs. The Rotterdam port with its digital transformation aims for ships to enter and leave the port autonomously in 2030. In Jebel Ali port after implementation of a Terminal Operating System, ZODIAC, the Container Terminal (CT3) will be able to integrate with any Terminal that uses the same operating system and can become part of the largest global network of supply chains.

152. Private ports and Terminals in India have embraced the advanced technologies to surpass many of the Major Ports performances. The Committee has been informed that Digital twin technology is operational at the GTI Private Terminal at Nhava Sheva as well as the latest Terminal Operating Systems, navigation simulation for training, etc.

153. While the Committee appreciates the initiatives taken for digitalization, it urges upon the Major Ports to adopt the state-of-the-art technologies to remain globally competitive. To stay abreast of the rapidly evolving technology should be integral to the digitalisation efforts of the ports.

154. The Committee also observes that upgrading skill sets of employees and training programmes for the future workforce would be crucial to keep pace with the digitalisation of the maritime sector. The Committee recommends that the Ministry and the Major Port Authorities should partner with Maritime Institutes for conduct of training and capacity building programmes for port employees.

IX. GREEN SHIPPING

155. The Committee notes that the United Nations Climate Change Conference (COP21) held in Paris adopted by 196 Parties, including India, on 12 December 2015 regarding globally agreed goals for action on climate change, aims to keep the global surface temperature rise well below 2 °C above pre-industrial levels, while pursuing efforts to keep below 1.5 °C .

156. Shipping plays a central role in global supply chains and is a significant source of Greenhouse Gas (GHG) emissions. The industry currently accounts for about 3% of CO₂ emissions but the enormous scale and volume of maritime transport means that its contribution to global CO₂ emissions would continuously increase in the next decade. Decarbonization of the sector must receive top policy priority if the world is to achieve net zero emissions by 2050.

157. The International Maritime Organisation (IMO) Initial Strategy on the reduction of GHG emissions from shipping has the goals as -

- Cut annual greenhouse gas emissions from international shipping by at least half by 2050, compared with their level in 2008, and work towards phasing out GHG emissions from shipping entirely as soon as possible in this century.
- The Initial GHG Strategy envisages a reduction in carbon intensity of international shipping (to reduce CO₂ emissions per transport work), as an average across international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008.

INDIAN INITIATIVES FOR GREEN SHIPPING

158. The Committee was informed that environmental matters pertaining to port are being handled with focus and seriousness. Some of the activities which are unique to the port and maritime sector, that impact environment are as under:

- (a) Dredging (capital and maintenance)
- (b) Handling of coal, iron ore etc.
- (c) Handling of crude, POL and other dangerous cargo, resultant fires/explosions/toxic release and marine spillage
- (d) Mechanical handling complexity and associated hazards
- (e) Traffic and congestion
- (f) Marine pollution due to operations of vessels and port infrastructure

159. The Committee was informed the Ministry intends to increase the share of renewable energy to 60% of the total power demand of each of its Major Ports from a present share of less than 10%. It also aims to reduce its carbon emissions by 30% by 2030. Maritime India Vision also sets in a number of targets for development of safe, sustainable and green maritime sector, and it is in line with the Panchamrit Commitments made in the COP-26 as far as decarbonization of the maritime sector is concerned for both ports and shipping sector. The following targets have been set by the Ministry for establishing Green and Sustainable Ports:

Sr. No.	EPIs	Target by 2030	Target by 2047
1	% share of Renewable energy consumption at ports (self-generated + procurement from grid)	>60%	>90%
2	% Port equipment/vehicles electrified	>50%	>90%
3	% area under green belt	>20%	>33%
4	% reduction in CO2 emission/ton of cargo (Baseline Year 2023)	>30%	>70%
5	%GHG emission reduction in all coastal/ EXIM vessels	>10%	>50%
6	% reduction in fresh-water consumption/ton of cargo (Baseline Year 2023)	>20%	-
7	% recycle and reuse of consumed water	>100%	-
8	% reduction in energy consumption/ton of cargo (Baseline Year 2023)	>20%	-
9	One no. of LNG bunkering station	By year 2030	-
10	Green hydrogen/Ammonia bunkers and refueling facilities	By year 2035	-
11	Adequate number of EV charging stations	By year 2025	-

160. Some of the green initiatives undertaken by ports are:-

- a) Usage of renewable energy
- b) Usage of shore supply
- c) Covert wharf crane from diesel to electrically operated
- d) Promotion of usage of wind turbines
- e) Provide green belt
- f) Rain water harvesting
- g) Reuse of treated sewage water for dust suppression, watering of plants
- h) Provide dust mitigation systems like mist cannon, wheel washing of trucks and sprinkling
- i) Promote India Cooling Action Plan whereby air conditioner temperatures are regulated between 24°C and 26°C to reduce power consumption
- j) Promote LED lighting

k) Repairing, refurbishing, and recycling existing materials and products for as long as possible

161. The wind and solar power installations at the ports help to move towards more and more share of renewable energy in the power that is being consumed by the major ports. Currently, the Major Ports use around 12-13 per cent renewable energy. The target is to achieve the level of more than 60 per cent by 2030, and, by 2047, to become hundred per cent renewable, powered by renewable energy.

162. Presently four Major Ports i.e. Deendayal, Visakhapatnam, New Mangalore, and V.O. Chidambaranar Ports are surplus in renewable energy generation. Other Ports are also using Solar Power and are in the process of developing the infrastructure for the generation of renewable energy.

163. Providing power to the ship from the shore is one of the important facilities which has the potential to reduce the carbon footprint of the ports because 70 per cent of the carbon being emitted by the ships, idling at the berth. It is one of the major components of the carbon emission by the ports. Presently port vessels, coastguard, navy, and customs are mainly provided the shore power. Thereafter efforts will be made to bring coastal vessels, Exim vessels and cruise vessels onto shore power.

NATIONAL HYDROGEN MISSION

164. The Cochin Shipyard is building a hydrogen fuel cell powered ferry vessel as a pilot project. Fuel cell for the vessel is being manufactured through one of the indigenous partners. This fuel cell is under manufacturing and all tests & trials for using the same for marine application will be completed by the end of August, 2023.

165. Further, as envisaged in the National Hydrogen Mission, MoPS&W has identified and nominated Paradip port, Deendayal Port and V.O. Chidambaranar Port for developing them as Hydrogen Hubs, capable of handling, storage, and generation of green hydrogen by the year 2030. So, the ports are also working on those targets providing bunkering, handling and storage facilities for low-carbon fuels, methanol, green ammonia, green hydrogen, etc. So, those initiatives are also in pipeline and are in different stages of planning.

166. The Ministry has declared the establishment of India's first National Centre of Excellence (CoE) for Green Port & Shipping (NCoEGPS) to assist the Ministry and Indian Maritime industry on development of the necessary policy and regulatory framework and in developing an alternate technology adoption road map for Green Ports and Green Shipping which in turn aim to foster carbon neutrality and circular economy. The Ministry shall provide one time non-recurring grant of Rs.70.2 crore for developing and establishing the NCoEPS.

167. The Ministry of Ports, Shipping, and Waterways has launched the “Harit Sagar” Green Port Guidelines to reduce carbon intensity and to develop an environment-friendly ecosystem at Major Ports with the participation of all stakeholders.

168. Harit Sagar Guidelines - 2023 will provide comprehensive guidance to the Major Ports of the country for developing an action plan for achieving Sustainable Developmental Goals (SDG) which include obligations on developing resilient infrastructure for safe, efficient and sustainable ports and promote environmental reporting as a means of communicating environmentally compatible behavior to stakeholders.

169. The Committee notes the targets set by the Ministry for Green and Sustainable Ports. As per the requirement of the Committee, the Ministry has provided details of the status of the Environment Performance Indicators of some of the Major Ports (Annexure XI). The Committee notes that the figures present a dismal picture. Some Ports like Deendayal and New Mangalore Ports have achieved 100% targets in renewable energy while many ports for example, Chennai port, VoC Port, Mormugao Port have barely achieved 4-6% of the target. Paradip Port has achieved only 0.60% of the target. The Committee further notes that the target of usage of renewable energy in ports to 60% by 2030 i.e. within a span of seven years appears to be unrealistic given that the usage of renewable energy at present by most Major Ports is in the range of 10-12% only.

170. The targets achieved so far by ports are very low in case of reduction in CO2 emissions and reduction in GHG emissions. Besides, in case of Green Hydrogen/Ammonia bunkers, most Major Ports are still in the planning stage. The target of reduction in carbon emissions by 30% taking 2023 as the Baseline Year also appears to be over-optimistic as the only major initiative in this direction is the Shore to Ship Power supply.

171. The target for percentage of Port Equipment/vehicles electrified is more than 50% by 2030 but the Cochin Port has achieved only 8%, VoC Port 9% and Kamarajar 5%. Mumbai and Mormugao have not yet achieved any target.

172. The Committee would also like to know the number of EV charging Stations by 2025 which would be considered adequate as the data provided by the Ministry shows the present status to be 01 in JNPA, 02 in New Mangalore and 01 in Kamarajar Port only.

173. Zero-carbon fuels and technologies are not currently available at the size, scale or price, the shipping industry needs for wide-scale adoption. For a ship to be zero-emissions, it must be capable of operating on fuels like green hydrogen which produces zero carbon emissions. The Ministry has stated that the Cochin Shipyard is building a hydrogen fuel cell powered ferry vessel as a pilot project and all tests & trials for using

the same for marine application will be completed by end of August, 2023. At the time of Demands for Grants 2023-24, the Committee had been informed that the project had been stalled and funds were unutilized due to non-availability of special grade aluminium plates. The Committee desires to know the exact status in the matter.

174. The Committee observes that Shore to Ship Supply is a significant contributor to reduction in carbon emissions and recommends that the facility be provided to all vessels including cruise ships and coastal vessels. The Committee also observes that cargo like coal and iron ore cause a lot of dust pollution and recommends that all Major Ports should have covered sheds for the storage of such cargo to prevent pollution. The Committee hopes that the Ports endeavor to achieve 100% electrification of Port Equipment/Vehicles by 2030.

175. The Committee observes that the Ministry has issued guidelines and set targets but does not appear to have formulated a Green Policy. The Committee refers to the green initiatives of the Maritime and Port Authority (MPA) of Singapore and Port of Rotterdam placed at Annexure XII. The Committee recommends that the Ministry may form a similar blueprint for reduction of CO₂ from different spheres of port activity rather than having a total reduction which may be more difficult to implement. The Committee also recommends that the Ministry may form a Green Policy comprising green initiatives and targets for different aspects of the port sector. The Committee also desires to know the infrastructure planned or developed for the green energy of the future as timely development of such infrastructure would be crucial for timely implementation of green policies. The Port of Rotterdam for instance is working on a public hydrogen pipeline through the port which in the future will be connected to the national and international hydrogen network

X. CRUISE TOURISM

176. The Ministry informed that prior to Covid, there was a 35 per cent year-on-year growth of cruise traffic in the country. Now, post-Covid, from 2021 onwards, there has been an increase in cruise traffic but still the pre-Covid growth has not been achieved. Prior to Covid, there were 4.7 lakh passengers on cruises and now, about 3 lakh passengers.

177. The Ministry further informed that the Government has taken a number of steps in bringing in international cruises into the country. The composite tariff that has been announced is the lowest cruise tariff as compared to anywhere else in the world. (**Annexure – XIII**). A number of simplifications of immigration and customs processes have been effected which helped bring cruise tourists into the country.

178. The Mumbai Port is making the largest cruise terminal which will be having an area of 4.5 lakh square feet. It will be able to handle 200 ships in a year, up to ten lakh passengers. Similarly, a cruise terminal is coming up in Goa. New Mangalore, Cochin and Chennai already have cruise terminals and some facilities will be upgraded at these terminals.

Visakhapatnam and Kolkata cruise terminals will come up very soon. Now the eastern part of India -- Chennai, Visakhapatnam, Puducherry - is also witnessing a lot of demand from cruise industry. Similarly, the cruise industry's demand for Lakshadweep and Andaman and Nicobar is also peaking up.

179. Upon enquiry by the Committee about the reasons for India lagging behind in cruise tourism, it was informed that the cruise infrastructure had not been improved when cruise ships became bigger in size. Embarkation and disembarkation are extremely important particularly when a cruise ship comes with 3000-5000 passengers at a time. Besides, India does not have dedicated cruise terminals whereas the world over, there are dedicated cruise terminals operated by cruise lines. India will reach that stage in about 5-10 years time.

180. The Committee observed that Singapore cruises go to international waters and allow the casinos to be operated from there and then return which is why such cruises are able to attract more tourists and enquired from the Ministry whether similar cruise was operating in India. The Ministry informed that the Cordelia cruise goes out beyond 12 nautical miles which allows people to enjoy casinos. The Committee recommends that cruises could initiate from Mumbai to Mangalore and to Goa via Cochin from where the ship could go to international waters to attract more tourists.

XI. ACTS AND LEGISLATIONS, MODEL CONCESSIONAIRE AGREEMENT AND THE ISSUES IN PRIVATE PUBLIC PARTNERSHIPS

181. The Committee had been informed in its meetings with the stakeholders that one of the most crucial issues impacting the viability of PPP projects is their inability to use tariff mechanism to face the ever-increasing competition in the port sector from competing facilities both within the major ports as well as nearby non-major ports. Till recently, tariffs for PPP operators were being regulated by the Tariff Authority for Major Ports (TAMP). The unviable rates fixed by TAMP have affected the viability of many of the PPP Projects governed under the Tariff Guidelines issued in 2008, 2013 and 2019. This has led to negativity in the investor's perception and is one of the main factors for the lukewarm response in the bidding process in the port sector over the last few years.

182. Keeping the above facts in mind, the Government has abolished TAMP and provided market-based tariff freedom to PPP Operators through enactment of Major Port Authorities Act, 2021 which made some key changes like the introduction of the Landlord Port Model of Development and accordance of market-based tariff freedom to the new concessionaires under Public Private Partnership Mode. The role of TAMP has ceased in fixation of tariffs/SoRs. However it may be associated in advisory capacity and resolution of past cases of tariff fixation as the MPA Act 2021 is not applicable with retrospective effect

LANDLORD PORT MODEL

183. The landlord port model is a port management model in which both public and private sectors are engaged in the management of the port. The Port Authority retains ownership of

the land and leases the infrastructure particularly the terminals to private companies which handle the port operations. In June 2022, Jawaharlal Nehru Port Authority port became the first 100% Landlord Major Port of India. The Landlord Port Model aims at -

- decentralizing decision making to infuse professionalism in governance of Major Ports.
- imparting faster and transparent decision making benefiting the stakeholders and enhance the project execution capability.
- reorienting the governance model in central ports in line with the successful global practices.
- bringing transparency in operations of Major Ports.

The Ministry also informed the Committee that to further complement the landlord port model, the Public Private Partnership mode is being promoted in infrastructure projects aimed for expansion, modernization and up-gradation of Major Ports in the country with a view to keep the ports abreast with new technologies.

184. The following policy related reforms have also been done initiated for strengthening and encouraging PPP in port sector:

(1) Revision of Model Concession Agreement (MCA), 2021

MoPSW has announced the revised Model Concession Agreement (MCA) - 2021 on 18th November, 2021. It has not only provided more clarity for the responsibilities and obligations of authority and private party, but also introduced clauses related to the termination payment prior to Commercial Operations Date (COD), change in cargo due to unforeseen circumstances as well as change in law. These clauses among others should enhance Ease of Doing Business (EoDB).

(2) Formulation of Tariff Guidelines, 2021

In December 2021, new tariff guidelines have been issued which allow the concessionaires at Major Ports to set tariffs as per market dynamics and sharing of revenue with the Port Authority as per the bid condition and Concession Agreement.

(3) Formulation of the Guidelines for dealing with stressed public private partnership Projects at Major Ports

On 10th May, 2022, the Ministry of Ports, Shipping & Waterways has issued the 'Guidelines for dealing with stressed PPP Projects at Major Ports' for reviving the stuck projects and unlocking blocked capacity.

(4) Establishment of the Society for Affordable Resolution of Disputes - Ports (SAROD-Ports)

In order to seek speedy, affordable, just and reasonable redressal of dispute/differences between Major Port Trusts and Concessionaire/Contractor arising out of and during the course of execution of various contracts, a Society for Affordable Resolution of Disputes - Ports (SAROD-Ports) has been formed under the Societies Registration Act, 1860 on 30th January 2020.

(5) Constitution of Conciliation and Settlement Committee for Major Ports succeeds in settling decade long commercial disputes.

185. An alternate dispute resolution mechanism has been set up for Major Ports by Indian Ports Association(IPA) (an apex body of Major Ports under the administrative control of the Ministry of Ports, Shipping and Waterways (MPSW)) in October 2021 through appointment of a Conciliation & Settlement Committee (CSC) comprising independent experts with the intention of achieving the settlement among the stakeholders in the least possible time, thereby saving on financial burden on the industry players as well.

186. The Committee observes that the JNPA, the first Landlord Port in the country, is a good Landlord Port model that showcases the advantages which the Major Ports can benefit from. JNPA, the top Container Port of the country, ranks 54 in the global rankings and the efficiencies brought to the port have enabled it to achieve performance parameters which are far ahead of the rest of the Major Ports.

187. The Committee observes that the operational cost of a PPP operated berth will be substantially lower compared to a port operated berth due to several reasons like less number of staff employed, improved productivity due to adoption of technology, etc. There is no cost involved to the Port Authority as the entire cost of port operations is undertaken by the PPP operator. The Landlord Port Model has been a successful global practice and the Committee recommends that the Ministry may make all-out efforts to implement the model in the remaining Major Ports.

MODEL CONCESSION AGREEMENT, (MCA) 2021

188. The Committee was informed that the salient features of the new MCA are as follows:

- To reduce risk to the lenders and make the project more bankable, provision of compensation for Concessionaire's event of default before Commercial Operations Date (COD) has been added.
- Provision which lays out process for extension of concession period on the basis of performance and mutual agreement has been introduced.
- Provision has been made for flexibility to the concessionaires to fix their tariff based on market conditions which will enable the private terminals at Major Ports to compete for cargo.
- Provision of change in cargo due to change in law or unforeseen events has been introduced for the first time. The concessionaire did not have flexibility to handle different cargo and the asset constructed was not being utilized optimally. This provision will impart the flexibility to undertake change in cargo in such situation and reduces risk for the concessionaire. Overall, more clarity has been provided in terms of responsibilities of both public as well as private party while balancing the risk

The Committee has been informed that the revised Model Concession Agreement, 2021, however, is applicable only to all the future PPP projects at major ports, as well as projects which are already approved by the Government but were under bidding stage on the date of notification of new MCA. The New MCA is not retrospective as PPP projects awarded before new MCA notification are governed by their respective concession agreements.

ISSUES ARISING OUT OF THE PROSPECTIVE APPLICATION OF THE NEW MODEL CONCESSION AGREEMENT

189. The Committee was informed by the representatives of the IPPTA of the following issues arising due to the prospective application of the new MCA:-

- The new concessionaires are being given the land at a very nominal price but the old concessionaires still pay very exorbitant prices which increase periodically over a period of time. Due to the existing situation, a lot of migration of traffic is taking place from all the existing operators to the new operators because the new operators are able to offer the services at much more liberalised tariffs.
- For old concessionaires, the Port Authority is taking a revenue share as well as lease rental.

190. Upon query by the Committee, the representatives of the Indian Ports Association clarified that in the old Concession agreements ports charged land lease rentals and took a share of percentage of the total revenue from the Concessionaire. Both the land lease rentals and the revenue share are fixed. In the new Concession Agreement, the land is either free or nominally charged. Upon further query by the Committee, the Ministry has informed that as per the Policy Guidelines for Land Management, the annual lease rent for PPP projects is determined based on latest Schedule of Rates (SoR) with the approved rate of annual escalation to be indicated to the bidders at the bidding stage itself. For land that is not for PPP projects, the final price is determined over and above the Reserve Price based on a tender-cum-auction.

- Presence of two sets of operators in the same port, one having market freedom in fixation of tariffs and the other bound by a regulatory mechanism stifles the growth of the latter as there will be diversion of traffic leading to underutilization of facilities created at huge cost.
- In the absence of market freedom in fixation of charges, the existing concessionaires will not be able to compete with the neighbouring non-major ports that enjoy market flexibility in the pricing and can well vary charges depending on 'demand and supply'. The fact that the share of the non-major ports has increased rapidly from 35.6 % in 2010-11 to around 48% in 2021-22 bears testimony to this.

191. The Committee had requested the Ministry to give its comments on the issue of extending the benefits of the MCA, 2021 to both the existing as well as new Concessionaires. The Ministry has put forth the arguments that the PPP projects are executed through Concession Agreements which are legally binding and are governed by the policies that are applicable in that time period. Any post-bid changes in the Concession Agreement is open to litigation. The Ministry has also informed that a Committee consisting of the Chairmen of VoCPA, ChPA & JNPA was constituted in May, 2023 for deliberation on whether the provisions of MCA, 2021 can be made retrospective and the report of that Committee is awaited.

192. The Committee observes that the within the past two decades, the Model Concessionaire Agreement has been changed thrice, in 2008, 2018 and 2021 (Comparative statement of the provisions of the three MCAs placed at Annexure XIV). The first revision came after a decade and brought only minor changes in a few of the provisions. The second revision came within 03 years and brought about a major overhaul in existing regulations, with the introduction of market based tariff fixation, abolition of the authority of TAMP, provisions for change in cargo, etc. It is not surprising that the existing Concessionaires find themselves in a disadvantageous position vis-a-vis the new Concessionaires under the MCA, 2021.

193. The Committee also observes that the new Agreement was issued with the purpose of countering the lukewarm response of the private sector in PPP projects and to provide a framework to increase PPP participation to boost port performances. The Committee observes that in 2019, on the issue of periodic revision of SoR (Schedule of Rates) for land, it had been decided not to apply revision of SoR for land every 05 years for PPP projects as it may not be in the overall interest of the Major Ports. The Committee feels that the retrospective application of the MCA, 2021 should be examined in the same spirit. The Concessions given to the private operators generally are passed on to exporters/importers by leveraging costs and therefore the general public can only benefit by these measures. The Committee feels that the Ministry may take these concerns into account while examining the requests of the existing Concessionaires.

194. The Committee notes that the issue is under examination by a Committee consisting of the Chairmen of various Major Ports and desires that the Ministry may update the Committee on its outcome.

195. ISSUES ARISING OUT OF THE ADVERSE PROVISIONS IN THE MODEL CONCESSION AGREEMENT

❖ **Debt Due** - Under Article 1.1, Debt Due definition is amended to provide that it should not exceed 85% of the Total Project Cost which will deter the Lenders from lending beyond certain limits.

❖ **Total project Cost**

Under Article 1.1, "Total Project Cost" means the lowest of-

(a) The capital cost of the Project as set forth in Financial Package at the date of Financial Close,

(b) The actual capital cost of the project upon completion approved by Independent Engineer & Statutory Auditor and submitted to authority at the time of issuing Completion Certificate and

(c) A sum of Rs. ***** crores (~~Rupees ***** crores~~). This would effectively mean that the compensation in the event of termination is limited to the Estimated Project Cost. This departs from the provisions in the existing projects awarded prior to

2018, where the Concession Agreement allows the Actual Project Cost to be taken into consideration. This provision deters Developers from investing as the Lenders demand additional securities with higher interest rates as they would like to cover 100% of their loans.

❖ **Adjusted Equity**

Under Article 1.1, a new Term ‘Adjusted Equity’ has been defined to mean the Equity adjusted to reflect the change in its value on account of depreciation and variations in price index. The Adjusted Equity after the 4th anniversary of COD shall be Base Adjusted Equity reduced by 0.22% each month till the end of the Concession period. This reduces the compensation payable to the concessionaire in case of default on account of the Concessions Authority

❖ **Payment of Royalty-100@ WPI escalation**

Under Article 9.2 (a), the payment criterion has now been changed from the revenue sharing model to royalty model, which was adopted in the initial years of privatisation, and replaced subsequently by revenue sharing model, as the royalty model proved to be unsuccessful. Adopting the royalty model again with annual escalation by 100% of the WPI is going to hurt the concessionaires badly.

❖ **Royalty payment linked to MGC**

Under Article 9.2 (a), the Concessionaire will have to pay for the shortfall in the Minimum Guaranteed Cargo handled in a year. Often, the quantum of traffic handled is beyond the control of the concessionaire. In view of this, the requirement of paying for shortfall was dispensed with in the earlier MCAs in the revenue sharing model. The concept of MGT has lost its relevance with excess capacity available at major ports.

❖ **Creation of Charge**

Under the previous MCA, the Concessionaire possesses the ownership of all the assets created by it till the end of the Concession Period and is entitled to create a charge on its rights, title and interest in assets created by the Concessionaire in favour of the Lenders. This clause has been deleted. Revised clause has been added to the effect that the concessionaire shall not assign its rights, title or interest in the Agreement and in Project Assets in favour of any persons. The current definition of Project Assets offers limited scope for lenders to create charge over project assets and the lenders would not come forward to finance the project unless additional securities and high interest rates are agreed to. This would make the project financially unviable for the Developers (Article 10).

❖ **Compensation in case of Termination**

Under Article 17.1 (c), if the termination is due to Concessions Authority’s Event of default, the compensation payable by the Concessions Authority to the Concessionaire shall be an amount equal to 90% of the Debt Due less Insurance Cover; and 150% of the Adjusted Equity and 115% of the Additional Termination Payment. By deducting insurance

cover from the debt due, the compensation payable can become negative. This is unfair to the Concessionaires and the Lenders as while the assets are taken over by the Authority, compensation payable is restricted.

196. The benefits under the Services Exports from India (SEIS) Scheme have been removed from the ports sector. SEIS aims to make our exports competitive in terms of price and promotes export of services from India. Under SEIS Scheme, exporters of selected services are entitled to a 3% / 5% / 7% incentive on the Net Foreign exchange earned in the form of Duty Credit Scrips. These SEIS scrips can be used to pay Import duty or can be encashed by selling it to any Importer.

197. Last year, when the Ministry of Commerce first extended the validity of the FTP for the last year of FTP 2015-2020, benefits under the MEIS (a similar scheme meant for merchandise exports) were allowed to continue until a new scheme replaced it. However, the SEIS was not extended.

REVIEW PROVISIONS UNDER MAJOR CONCESSION ACT

198. The Committee has been informed by the IPPTA that Port Authorities are reluctant to make any changes in provisions of the Concession Agreements even when there is full justification on the plea that these may be construed as post bid change inviting attraction of vigilance/audit agencies.

199. The Committee has been informed of the following arguments in favour of allowing changes in the provisions of the Concession Agreements:-

- Most Concession Agreements contain the following review provisions -
“Amendments, Modifications or Alterations
No amendments, modifications or alterations of or any addition to the terms and conditions of this Agreement shall be valid unless the same be in writing and agreed to by the Parties.”
If such provisions are built into the Concession Agreements, it can only mean that the Agreement can be changed in the course of the contract.
- In a contract of 30-year duration, every change cannot be anticipated at the bidding stage. If the Agreements are completely inflexible and no changes in provisions are allowed, this may result in some of the Projects being turned into Non-Performing Assets (NPAs).

200. Upon enquiry by the Committee, the Ministry has submitted that the MCA, 2021 has been made more investor friendly. In the new MCA, 2021 the total project cost shall be deemed to be modified to the extent of variation in Price Index occurring in respect of Adjusted Equity as defined in Article 1.1, The revised MCA, 2021 also provides for payment of Royalty by private operators to port on per Million Ton of Cargo handled instead of Percentage of Gross Revenue Basis. As per Article 9.2 clause

(c), royalty per MT of Cargo/TEUs will be indexed to as per variations in the Wholesale Price Index (WPI) annually as declared by the Ministry of Commerce and Industry. The royalty payment to ports will undergo the same variation as WPI variation which is a rise for general inflation and is not an increase on royalty. Regarding Schemes like Export Promotion Capital Goods (EPCG) and Service Export from India Scheme (SEIS), they are operated by the Ministry of Commerce and Industry.

201. The Committee observes that while clauses relating to Amendments, Modifications etc are built into almost every agreement or contract, at the same time Agreements have a certain sanctity and adherence to its conditions is always expected. A Concession Agreement is signed, knowing fully well the duration of the contract, the market conditions and the risks involved and it is expected that the Concessionaire evaluated all costs and benefits at the time of the agreement.

202. As such, Private Public Partnerships require a framework that would enable the private sector partner to secure a reasonable return while enabling value addition for public resources. This can only be achieved by establishing clear and transparent norms for the PPP and by entering into unambiguous and specific contractual relationship. Concession Agreements are generally made for 30 years and with the rapidly changing market scenario, every change cannot be anticipated at the bidding stage in contracts spanning three decades. In fact private players are now looking for even longer Concession periods in the port sector. The Adani Ports and Special Economic Zone (APSEZ) has won a bid to build a Greenfield port in Tajpur, West Bengal for a Concession period of 99 years. The MCA, 2021 also has provisions for 45 years Concession Period for multi-phase investments. The port sector is capital intensive and longer Concession periods which would lead to gestation for a larger Capital cycle may become the norm in future. It is unimaginable that the conditions prevailing at the time of the Agreement would remain the same in the next century.

203. Regarding the argument that the Port Authorities are reluctant to make changes due to audit/vigilance, the Committee observes that the issue of Royalty or revenue share raised above had, in fact been raised by the CAG in its 2015 Performance Audit Report of Public Private Partnership Projects. The project under examination of the CAG was the agreement of the JNPA with the Nhava Sheva International Container Terminal (NSICT) for operation of a Container Terminal where the JNPA had switched to the revenue sharing model after 18 years of operation from the earlier royalty model due to high royalty rate per TEU which increased progressively. The CAG had commented adversely on the design deficiencies of the model due to which the port had to migrate to the revenue share mode after 18 years of operation. The CAG had also commented that a PPP Project would succeed only if the risks are uniformly apportioned between the two parties and that a Concession Agreement is unlikely to succeed if it has conditions which are harsh on the operator.

204. In the considered opinion of the Committee, much of the issues arising from the Concession Agreements can be avoided by adopting the right models for the project from the beginning and ensuring that the Concessionaire Agreements retain an element of flexibility to incorporate necessary changes which would benefit both parties. Rigid Agreements have the potential to defeat the purpose of successful PPP partnerships. While the provisions of the Agreement should be largely adhered to, no purpose is served by an unyielding observance of faulty policies. The Committee recommends that the Ministry may examine the issues raised by the IPPTA in the light of the above position.

XII. INITIATIVES FOR LEGAL DISPUTES AND ARBITRATION

205. Maritime arbitration has the advantages of flexibility, specialization, confidentiality and the possibility for the parties to determine every aspect of the procedure according to their needs.

206. The Committee was informed that Article 19 of the Model Concession Agreement has the mechanism for dispute resolution. In case of a dispute between the parties, the parties shall first meet so as to discuss and resolve the matter in mutual agreement. If this fails, the Concessionaire may agree to refer the matter to a Conciliation and Settlement committee established by the Concessions Authority in line with the Arbitration and Conciliation Act 2015. In case both these processes fail, the dispute shall be referred to SAROD – Ports. In the event of constitution of a statutory Adjudicatory Board as per provisions of Major Port Authorities Act, 2021 or such other forum with powers to receive and adjudicate upon disputes between the Concessionaire and the Concessions Authority, all disputes not settled through conciliation, can alternatively be referred to the Adjudicatory Board or such other forum with mutual consent of the parties in accordance with the applicable laws. Both parties can challenge the award in a Court of Law in case they are aggrieved with award. The Committee was informed about the problems with the above dispute resolution mechanisms-

- 1) Dispute Resolution for Existing Concessionaires - The existing concession agreements/licence agreements have provisions relating to Dispute Resolution. As per these provisions, if there is any dispute or differences claims of any kind arise, the Parties should first meet together promptly in an effort to resolve such issues. The Parties may, in appropriate cases agree to refer the matter to an Expert appointed by them with mutual consent. Failing amicable settlement or settlement with the assistance of an Expert, the dispute may be finally settled through Arbitration under the Arbitration and Conciliation Act. However, in many cases, Ports are not honouring the opinion given by the Expert and also not agreeing to refer the matter for Arbitration. This has made the attempts of the concessionaires to settle the disputes amicably difficult.
- 2) Dispute Resolution For new Concessionaires- For new Concessionaires, Government has introduced a Society for Affordable Redressal of Disputes (SAROD Ports) which acts as an arbitration mechanism at affordable costs. The success of this mechanism is to be tested, as new concessions have been awarded only recently. Approaching

- SAROD Ports depends on mutual agreement between the Port Authority and the Concessionaire. At present, none of the Concessionaire has approached SAROD Ports
- 3) Adjudicatory Board - By way of enactment of Major Port Authorities Act, 2021, a new mechanism of Adjudicatory Board has been introduced. It is headed by a Presiding Officer assisted by two Members. The Presiding Officer shall be either a retired Supreme Court Judge or a retired Chief Justice of a High Court. The Members shall be either retired Chief Secretary of a State or retired Secretary of the Central Government, having at least 20 years of experience in the field of finance, commerce, administration, maritime, shipping or port related matters. However, the Presiding Officer has not yet been appointed and the efficacy of this Board in resolving disputes is yet to be tested.
 - 4) Conciliation and Settlement Committees - In the meanwhile, Government came up with another new Mechanism called Conciliation and Settlement Committee headed by retired Secretary level Officers and Independent Experts. The Committee has been functioning successfully and is able to resolve some of the pending disputes. However, some of the issues could not be settled as Government has not accepted the Settlement reached through this mechanism. In some cases, the Port Authorities are not agreeing to refer the cases to these Committees.

207. The Committee observes that there are various mechanisms for adjudication of maritime disputes but none have proved to be very successful. The Committee has been informed by the IPPTA in its deposition that there is a dire need to develop a robust consultative mechanism to deal with ticklish issues and uncertainties inherent in long term contracts. The IPPTA acknowledged that at the policy and regulatory level on private sector participation, the Government does seek the comments of the stakeholders on draft policies proposed. But they seldom consult on the final policy being issued leading to difficulties because once the policy is promulgated, the Government is very reluctant to bring out any changes.

208. The Committee observes that a thorough discussion on all aspects of a proposed policy with all stakeholders and taking into consideration the viewpoints of the stakeholders should be sufficient to make a policy which would address all the concerns of the stakeholders to the extent possible. It is understandable that once a policy is in place, the Government does not wish to make frequent changes in it. However, the success of the PPP projects is essential for the achievement of the Maritime India Vision and the Ministry should make every effort to address the stakeholders concerns. The Committee recommends that in case of contentious issues emerging from the discussions with the stakeholders, the Ministry may again consult the stakeholders and try to resolve their concerns. The Committee also recommends that the Ministry may explore the possibility of creating a standing mechanism consisting of representatives of the Ministry, concerned Port and the PPP Operators to discuss outstanding issues at specified periodic intervals so that issues can be settled at an early stage without resorting to arbitration which has not proved to be very successful.

209. The Committee has been informed by the IPPTA that in many cases, the Ports have not honoured the verdict of the Expert called for amicable settlement and have also refused to refer the issue to arbitration. The Committee would like to have the views of the Ministry on this issue. The Committee desires to have a list of such cases where amicable settlement was not reached through discussion and it was not referred to arbitration or the Conciliation Committees. The Committee wishes to know the action taken by the Ministry in such cases for resolution of the issues.

210. The Committee observes that the Adjudicatory Board was introduced under the Major Port Authorities Act, 2021 and yet no Board has been formed as yet. The Committee desires to know the reasons for non formation of the Board and recommends that the same may be constituted at the earliest.

211. Of the dispute mechanisms, it appears that only the Conciliation and Settlement Committees have had reasonable success in the resolution of disputes. The Ministry has provided information that out of 43 cases referred to the CSC, 15 have been resolved while 8 are at final stages of settlement. The Committee recommends that the Ministry may provide all assistance to such Committee for their functioning and ensure that Port Authorities have no hesitation either in referring the disputes to these Committees or in implementing their decisions.

212. The Committee also notes that the vision is to have 85% PPP partnerships in Major Port projects by 2030. The increase in the number of partnerships would throw up more issues between the parties which would need successful arbitration otherwise more projects would get bogged down in arbitration issues. The Committee recommends that the Ministry pay adequate attention to resolution of arbitration issues and setting up of successful forums for arbitration for implementation of PPP projects

XIII. PORT EMPLOYEES WELFARE

213. Upon enquiry by the Committee, the Ministry gave details of the sanctioned strength of employees and vacancies at the 12 Major Ports (ANNEXURE XV). The Committee observes that a majority of the Major Ports have a shortfall of vacancies and some like the Mumbai Port, SMPK, Cochin Port, Paradip Port and Chennai Port have about half of the sanctioned posts vacant. The Committee desires to be informed about the reason for the large number of vacancies, the duration for which the posts have been vacant and the timeline by which the vacancies are likely to be filled up. The Committee observes that JNPA and SMPK have employed a large number of contractual workers, presumably against the vacant regular posts. The Committee also observes that there appears to be a great disparity in the number of employed personnel across the ports. For instance, Kamarajar Port, VoC Port and JNPA have sanctioned strengths of only 92, 458 and 1660 employees respectively while Mumbai port and SMPK have sanctioned strengths of 7417 and 10,096 of which as stated earlier about half are vacant. Even keeping in view the varying capacities and traffic handled by the

ports, the disparity in number of employees is striking. The Committee observes that automation and mechanization of operations in ports like JNPA have reduced the employee strength. The private ports of Pippavav and Jaigarh in Gujarat have employee strengths of 500 and 1700, respectively.

214. The Committee recommends that ports which have a huge number of vacancies especially Mumbai Port and SMPK may review their sanctioned strength and take action to either fill the vacancies if necessary or abolish posts which are lying vacant for a long time. The Committee also exhorts the ports to expedite mechanization so that the employee strength could be restricted to only the essential posts.

215. The Committee notes the different Welfare Schemes for the Shipbuilding, Shipbreaking and Dock Workers. The Committee desires to know whether residential quarters are provided to the employees and whether skill development courses are offered for upgradation of their skills. The Committee also desires to know whether the contractual workers are given the same benefits as regular workers.

RECOMMENDATIONS/OBSERVATIONS – AT A GLANCE

The Committee observes that the cargo handling of the Major Ports has been steadily increasing over the years, and only in the last year has there been an increase of 10%. On a query by the Committee, the Ministry replied that to augment the volume of cargo handling, the Port Authorities have also explored the possibility of generating new cargo to reduce the gap between the actual traffic and the capacity. Major Ports also organize trade meets to attract traffic from their hinterland/region. Several steps have also been taken to boost coastal shipping.

(Para 13)

The Committee also observes that the increase of 10% has come primarily due to JNPA's impressive performance, followed by Paradip and Deendayal Port. There is only a marginal increase in the figures of the remaining Ports, while the Mormugao Port has witnessed a decline in traffic. The growth trend in the market share of cargo is, therefore, confined to only three of the Major Ports while the remaining show barely perceptible improvements. The Committee underscores the need for better performance by the remaining nine Major Ports and recommends that the Ministry come out with a focused and calibrated strategy to raise the cargo handling performance of such Major Ports.

(Para 14)

The Committee observes that India occupies the 11th position globally regarding container traffic handled. Massive Container Ships invariably require deep drafts, and the ports must remain alive to their requirements. At present, most Indian Ports have drafts of about 14 mts, with only a few having 16 mts drafts, while Container Ships require drafts of upto 18-20 mts.

(Para 15)

CAPACITY OF MAJOR PORTS

The Committee observes that while port capacity is considered to be saturated at 70-75% of capacity, some of the Major Ports are functioning far below the mark. Mormugao operates at only 27% capacity, while Chennai and VoCA operate just at 32%.

(Para 18)

The Committee observes that there is still much untapped potential to be harnessed so as to increase the capacity of most of the Major Ports. The Committee points out that the capacity utilization of the Non-Major Ports in India has remained at 64%, which is much higher than the average capacity utilization in the Major Ports and

recommends that the Major Ports may set targets to increase the utilization of their existing capabilities to an optimum level.

(Para 19)

TURNAROUND TIME AND AVERAGE SHIP OUTPUT PER BERTH DAY

The Committee observes that of all the Major Ports, only the JNPA has achieved a world-class Turn Around time of 24 hours for Containers. The Committee commends the JNPA for this seminal achievement and exhorts the other Major Ports to follow the good practices of the JNPA to improve their respective Turn Around times.

(Para 22)

The Committee notes that while the TRT may have come down considerably from 80-90 hours, there has been only marginal improvement in the last five years despite the massive investments in technology, mechanisation and infrastructure. Of the 12 Major Ports, only 3-4 are functioning well with acceptable performances. The performance of other Major Ports in Turn Around Time must attract the undivided attention of the respective Port authorities in the larger interest of ensuring greater operational efficiency.

(Para 25)

Against this backdrop, the Committee calls upon the Port authorities to redouble their efforts on multiple fronts, lest achieving the goal of less than 20 hours Turn Around Time as envisioned in the Maritime Vision 2030 would remain elusive.

(Para 26)

The Committee also notes that the Average Ship Output Per Berth Day, like the TRT, shows only a marginal increase for many ports, and some ports have even shown a decline in output. Though the Paradip Port has crossed the threshold of 30,000 tonnes, yet unless all Major Ports project discernible increase in their performance parameters, the efforts of individual Ports would not help achieve the objectives. The Committee recommends that the Ministry takes special efforts towards monitoring the ground situation at ports that impede the performance progress.

(Para 27)

The Committee notes that every year, each Major Port enters into an MoU with the Ministry in which targeted efficiency parameters are agreed upon. The Committee desires to know the targets set for all four efficiency parameters and whether the ports have achieved the same. The Committee observes that due to infrastructure development and technological advancements, a proportional increase in productivity is only expected. As such productivity enhancement is invariably contingent upon and commensurate with the volume of investment. The Committee draws the attention of the Ministry to the imperative need for targeted performance by the major ports as

agreed to in the MoU and recommends that each Major Port may fix a target proportional to the amount of investments in infrastructural development.

(Para 28)

The Committee observes that mechanization of berths, minimum dwell time, skilled labour, and port connectivity for reduction in evacuation time are essential to reduce the Turnaround time and recommends that the Ministry may make efforts to bring in greater PPP partnerships for mechanization of berths.

(Para 30)

The Committee has also been informed about the lack of availability of skilled workforce in the port sector that hampers productivity growth. The Committee recommends that Logistics Skills may be included in the training programmes being conducted under the auspices of the National Skill Development Corporation (NSDC) to cater to the ever dynamic needs of the port sector.

(Para 31)

DRAFTS OF INDIAN PORTS VERSUS FOREIGN PORTS

The Committee observes that the world over, the shipping industry is moving towards mega-size vessels with ships of 20,000 TEU and above. While a Capesize vessel requires upwards of 18m draft, the draft at Indian ports is in the range of 14-16 meters only, owing to siltation. The Committee observes that the geographical and topographical limitations being are identical for both the public and private ports in India, how but the private ports have been able to develop drafts matching with world-class ports whereas the public ports have lagged behind. The Gujarat Pipavav port has a draft of 18.5 metres and plans to extend it to 20.5 metres. The Committee, while acknowledging the high dredging costs, underscores that the ports drafts must be in sync with the growing size of the ships in the interest of maximizing the benefits of large ships in cargo handling.

(Para 33)

Ports must increase draft according to the respective cargo profile. Indian container terminals must target an 18m+ draft. With the evolving ship types and increasing port parcel sizes, loading and discharge rates must be enhanced. The Committee also emphasizes that greater ship sizes and container loads need increased mechanization at Indian ports to improve the loading and unloading ecosystem. Dual-cycle cranes and Automated Guided Vehicles (AGVs) may be introduced in ports to ensure incremental productivity.

(Para 34)

The Committee observes that the Indian Private Ports and Terminals Association (IPPTA) had stated in its deposition before the Committee that most of the

tugs deployed by major ports had outlived their effective life and are operating beyond economic conditions. The service levels rendered by them do not match the Industry Standards. Private Tug Companies should be encouraged to render towage services at Major Ports in line with the international practices. The Committee calls upon the Ministry to consider this issue on merit.

(Para 35)

FINANCIAL PERFORMANCE OF MAJOR PORTS

The Committee notes the huge pension liabilities of the Mumbai port. However, it feels that such liabilities did not emerge in a day and are known from the time it got accumulated. Necessary contingency planning should have been effected and due mechanism put in place. The Committee appreciates that the port has now limited induction to technical and professional posts but notes that the present sanctioned strength of port employees at 7,462 is still much higher than JNPA and private ports of Mundra and JSW Jaigarh.

(Para 43)

The Committee observes that automation being critical to productivity enhancement is also necessary to reduce the staff strength of the port. But, the digitalization process is still ongoing in the port with Port Enterprise Business System, GIS-based Estate Operations Management System, and Integrated Access Surveillance System. The Committee recommends that the Port implements the digitization and automation programme in a time bound manner without any further delay.

(Para 44)

The Committee also observes that expansion in Cruise Tourism after completion of the International Cruise Terminal would boost the revenue accrued significantly. However, the Port should adopt proactive marketing strategies for promotion of cruise tourism by building appropriate interface with relevant stakeholders. The Committee observes that the Ropeway project has innate potential for tourism promotion and recommends that the Port may take up with the ASI for early resolution of the issue.

(Para 45)

The Committee observes that the Mumbai Port has a sizeable land bank and recommends that land monetization options may be explored in the interest of creating a credible industrial ecosystem that supports the Port while strengthening its resources.

(Para 46)

The Committee observes that Cochin port has much the same problems as that of the Mumbai port. Like the Mumbai port, land monetization could be one of the solutions. The Committee has learnt from media reports that the port is planning to lease land for logistics-related activities and recommends that the port may make all

concerted efforts for maximum land monetization. The Committee has also learnt that the port plans to change the system of granting concessions in vessel-related charges to ships calling at International Container Transshipment Terminal (ICTT) by shifting to a cargo-based discount scheme instead of a call-based discount scheme. The Committee observes that due to the economic crisis in Sri Lanka, many ship operators would divert their ships to Cochin, and the port should take advantage of such an opportunity by realigning its strategies. The Committee desires to be apprised of the Concessions in Vessel-Related Charges (VRCs) offered to Containers and the impact thereof. However, two Members of the Committee opined that the process of land monetization should not be done through giving control of valuable land held by the Cochin Port Trust to private monopolies and businesses. The port trust should use the land productively and produce profits through its initiatives and not hand over the valuable public land to private parties.

(Para 48)

The Committee observes that the iron ore in Goa is of low-grade material for which beneficiation needs to be done before it is exported. Moreover, a grade of only up to 62.5 per cent can be exported. The Committee observes that the Mormugao port relied heavily on the revival of iron ore export for its sustenance. As dependence on one commodity is laden with risk for any port, the Committee suggests that the port explores the possibility of other commodities, like bauxite, gypsum etc. from Goa and other neighboring States for transportation. The Committee observes that the Mormugao Port authorities had informed that transportation of iron ore cargo from Karnataka could be a possible alternative in case the iron ore mines in Goa were not revived. The Committee feels that as there are ports like Krishnapatnam, Kakinada and Vishakhapatnam which can handle the cargo, it is unlikely that interstate cargo would come to Mormugao port unless attractive rates and concessions are offered by the Port. The Committee recommends that the Mormugao Port may put in place, proactive strategies to attract cargo from neighbouring states.

(Para 52)

Regarding the development of the cruise terminal, at the meeting in Goa with the Mormugao Port Authority, the Ministry of Tourism, the State Government of Goa and various Tour Operators, the Committee was informed that there are only day cruises operating at present. The Committee had enquired about media reports on Goa port being dropped from the cruise circuit of three top cruise liners. The Committee was informed that there had been an incident with one cruise liner due to an altercation with taxi drivers at the port gates. As such, the issue had been taken up with the Goa government. There was now better coordination with all parties, including the taxi drivers. The Committee observes that globally, the cruise industry was dominated by a few companies and such incidents would mar the prospects of Goa in the international cruise circuit. The Committee observed that the long and beautiful coastline of Goa

presents huge potential for cruise tourism. The success of the cruise industry would depend on having an ideal ecosystem in which local conveyance plays a major role.

(Para 53)

Observing that the local conveyance in Goa was a State wide problem, the Committee recommended that solutions like the development of an app like “Savari” of Kerala which every taxi driver could join in Kerala, may be developed for Goa too.

(Para 54)

ISSUES IN OTHER MAJOR PORTS

The Committee notes that while the Mumbai, Cochin and Goa ports have faced financial difficulty due to some unique issues, most of the Major Ports suffer from common problems of outdated infrastructure, low capacity utilization, and poor performance Parameters. The Committee observes that mechanization, connectivity and good evacuation capacity are essential for increasing the performance of the ports and recommends that the Ports may endeavour to do the same with PPP partnerships.

(Para 61)

The Committee notes the benefits of the PPP model and recommends that all Major ports may make all efforts to achieve their targets of PPP partnerships as per the Maritime India Vision to improve their productivity and competitiveness.

(Para 62)

The Committee also recommends that the Ministry makes every effort to implement the Landlord Port Model in the Major Ports.

(Para 63)

The Committee also observes that land is one of the crucial resources of the port, which can be gainfully monetized. The Committee has been informed that Ports have allotted the land parcels for various purposes such as viz. liquid storage terminal, Godown / Warehouse, Salt Industries and Port-related Activities, etc.

(Para 64)

The Committee has been informed that the total land area available with the 12 Major Ports is about 271043 acres. The land leased or sold by various Major ports is as given in Annexure – IV.

(Para 65)

The Committee desires to know about the land monetization plans of the Major Ports, and whether any of the Ports have plans for industrial townships in the available port lands. Leasing port land to private investors on PPP basis for setting up of

industries/facilities would go a long way in promoting the Port Led Industrialization agenda of the Government while accruing sizeable revenues for the ports to address their resource concerns.

(Para 66)

III. PORT MECHANIZATION AND MODERNIZATION

The Committee observes that only 35% of total berths are mechanised in the Major Ports. Only Kandla port has all of its berths mechanised.

(Para 69)

The Committee finds it difficult to appreciate the position of the Ministry that all berths in the Major Ports would be mechanised by 2030, i.e. in a span of seven years. The Maritime Vision Plan is to position India as a top maritime nation. For this, the Ministry should make all efforts for mechanisation and automation of all the Major Ports by that year.

(Para 70)

The Committee understands that the cargo should reach a threshold for financial viability for the mechanisation of berths. The average capacity utilisation of the Major Ports is 49%, and many of the Major Ports are operating at much below this average. The Committee wishes to know how the Ports plan to increase their cargo handling capacity in the next few years to make the investments viable in the sphere of mechanisation and modernisation.

(Para 71)

The Committee notes that 31 port projects involving mechanization and modernization have been identified to be developed on PPP basis to be completed by 2024-25. The Committee would like to have the list of said 31 projects and the percentage of the total berths in all Ports which will be covered under this project.

(Para 72)

Mechanization of berths remained at the core of the measures taken by the JNPA in reducing its Turn Around Time from 52 hrs to 28 hours in a span of 05 years. The Committee recommends that the Ministry as also the Major Ports take expeditious action for the time-bound implementation of the 31 mechanisation projects and also draw up actionable plans for the mechanization of the remaining berths at the earliest.

The Committee also recommends that the Major Ports may take the initiative to replace the old, outdated equipment at the old berths with modern equipments so as to enhance their productivity.

(Para 73)

IV. DEVELOPMENT OF MEGA PORTS, NEW PORTS AND TRANSHIPMENT HUBS

The Committee observes that the economies of scale in maritime trade have given rise to Mega ships or Capesize Ships, which naturally require larger terminals and ports. Indian ports presently lack the infrastructure to deal with Capesize ships which are vital to international maritime trade. As Indian ports are gearing up to handle these giant ships by increasing their draft depths and modernizing the ports, India should also plan for developing Mega Ports to handle the ever-increasing size of vessels and Containers. The Committee also recommends that while planning for the mega port, the Ministry may also arrange for linkages with the local economy, creating industrial clusters to be economic drivers for the region.

(Para 77)

OBSERVATIONS/RECOMMENDATIONS

The Committee observes that most of the Major Ports of India were constructed more than 50 years ago, some a century old. JNPA, the 12th Major port of India was developed in 1989 and no other major port has been developed in the last three decades. The Vadhavan port, with its advantages of a natural draft of 18-20 m, proximity to the Mumbai Port and JNPA and to the upcoming Delhi Mumbai Freight corridor, was a much-needed addition to India's Major Ports.

(Para 81)

The Committee has learned from media reports that the Dahanu Taluka Environment Protection Authority (DTEPA) has now granted No Objection Certificate (NOC) for the Port. The matter being sub-judice, the Committee would like to be informed of any further developments on the issue.

(Para 82)

DEVELOPMENT OF TRANSHIPMENT HUBS

The Committee notes the reply of the Ministry but feels that the distance between two ports should be a matter of consideration as it impacts the overall productivity of both the old and also the upcoming ports. The Committee recommends that the distance between an upcoming port and another port in the region serving the same hinterland should form a part of the study before establishing the need for a new port.

(Para 94)

The Committee also notes the reply of the Ministry regarding the environmental impact studies done and conservation plans proposed in the upcoming Transshipment Hub at Galathea in Great Nicobar. As the proposed Hub is in an ecologically sensitive

seismic zone, the Committee exhorts the Ministry to evaluate all ecological considerations before project implementation.

(Para 95)

The Committee notes that one of the main problems obstructing the development of Transshipment in India emanates from the lack of deep drafts of Indian ports, especially those on the Eastern Coast and Southern coast. While dredging is necessary to deepen the drafts, the costs of dredging are charged to the shipping lines, adding to the cost of port calls in India compared to the foreign ports, thus, discouraging big ships from coming to Indian ports. The Committee has been informed that foreign ports do not bear the costs of dredging, which are borne by respective Government.

(Para 96)

Upon enquiry by the Committee, the Ministry acknowledged that the Syama Prasad Mookerjee Port, Kolkata, receives a dredging subsidy from the Government. But, the other Major Ports are responsible for their dredging expenditure, both capital and maintenance. The Committee desires to know why only the Kolkata port receives a dredging subsidy from the Government. The Committee would like the Ministry to give a comparative data on the number of foreign governments which bear the cost of dredging and the number of foreign ports which bear the cost of dredging themselves without any government help.

(Para 97)

If the former is a practice worldwide, the Committee recommends that the Ministry may explore the possibility of government support for dredging in Major Ports so that a globally uniform practice is followed so as to make our ports cost effective and competitive.

(Para 98)

The Committee also notes that solutions like Floating Cranes, which unload the cargo from Capesize Ships anchored in mid-sea into barges that take the cargo to the port, have helped ports like Kandla, a low draft port, to improve productivity and increase cargo volumes. The Committee desires to know if such solutions can be applied at other ports. In particular, it recommends that the Ministry looks into the solutions where dredging costs are prohibitive.

(Para 99)

The Committee also observes that in the early 2000s, the Container giant Maersk had shifted to the Tanjung Pelapas Terminal in Malaysia from Singapore, which is one of the world's largest transshipment hubs, which changed the face of the transshipment business in the entire region.

(Para 100)

The reason behind the move was stated to be the offer of a stake to the Company. The Committee observes that the crisis in Sri Lanka offers an opportunity to divert Transshipment operations from Colombo and recommends that the Ministry explores the possibility of offering such attractive package deals to Shipping Corporations to incentivize them to transfer their transshipment operations to Indian ports.

(Para 101)

The Committee recommends that the digitization of ports be given utmost priority so that automation would reduce transshipment cost.

(Para 102)

The Committee also recommends that involving the private sector by way of investment in infrastructure, provision of ancillary services and streamlining of Immigration and Customs formalities, would be crucial for developing Transshipment Hubs.

(Para 103)

V. PORT CONNECTIVITY

Port connectivity is one of the critical enablers for improving the efficiency of the maritime logistics ecosystem. By linking the port network with other connectivity modes such as rail, road, and air, India's port trade competitiveness can grow exponentially, giving it a significant edge.

(Para 104)

The Committee appreciates the initiatives of the DFCCIL for building the network of freight corridors, connecting the Major ports, which will present tremendous advantage in the connectivity of Major Ports and enhancing their productivity.

(Para 109)

The Committee has been informed that although most ports have a reasonably good 04 Lane Road Connectivity, Rail congestion is a concern in certain sectors, which affects freight movement. Combined with this, the availability of rakes has also adversely impacted the evacuation of cargo from/to ports.

(Para 110)

The Committee had also been informed in its meetings that despite having the requisite infrastructure and land, the Jaigarh port could not handle containers due to lack of major rail connectivity. The Committee observes that one of the main factors for the low capacity utilization of the Ports pertains to absence of road and rail connectivity to the hinterland to cater to the emerging demands. The need for good rail and road port connectivity for hassle-free cargo transport must assume importance. It should be

the priority of the Ministry to ensure proper connectivity to all ports, which would drive up the cargo traffic and increase the revenues from this sector. The Committee is pleased to note that the PM Gati Shakti Programme is taking up 101 connectivity projects for both Major and Minor Ports, and the Sagarmala Programme is also addressing the road and rail connectivity infrastructure gaps and recommends that the Ministry may ensure that all such projects are implemented on a priority basis in a time-bound manner.

(Para 111)

The Committee recommends that while conceiving a Port project, connectivity issues should invariably form part of the integrated planning for the project at the DPR stage and involve all the agencies like NHAI or the Ministry of Railways. The Committee has been informed at its meetings that while the mechanism for such consultation exists, there are concerns with regard to implementation. The Committee urges upon the Ministry to look into the concerns and ensure that all stakeholders and agencies are involved while planning for connectivity in a port project.

(Para 112)

VI. PRIVATE PUBLIC SECTOR PARTNERSHIPS IN THE PORTS SECTOR

118. The Committee observes that the investments through PPP mode in the last five years are a mere 8% of the total investments made in the projects at Major Ports. The Committee desires to know the status of the seven projects awarded from 2018-19 to 2021-22.

(Para 118)

Regarding the Pipeline of 81 PPP projects for FY 2022-21 to FY 2024-25, only 12 projects, which is less than 15%, have been awarded by 2022-23, leaving 85% of the 81 projects in the Pipeline to be awarded till the next financial year. The Committee also observes that 298 projects have been taken up under Sagarmala Scheme in the Major Ports out of which 140 have been completed, 78 are under implementation, 26 have been sanctioned, and the rest are still in planning stage. The Committee feels that the Ministry is not making enough efforts to achieve the targets set in the Maritime India Vision 2030 regarding PPP projects.

(Para 119)

The Committee notes that the Comptroller and Auditor General of India, in their 2015 Performance Audit report on the Public Private Partnership Projects in Major Ports, had commented that the PPP mode of implementation suffered delays mainly due to protracted time taken for finalization of tenders, time taken for obtaining security clearance of shortlisted bidders, time taken for the signing of Chartered Accountant (CA) and litigations by bidders during the tender process. The Committee observes that with 69 projects yet to be awarded, the Ministry needs to ensure that there

is timely implementation of the projects to achieve the targeted timeline. The Committee understands that one of the primary objectives of resorting to PPP is for faster development of infrastructure, and delays in implementation of PPP projects defeat this very objective. The Committee recommends that the Ministry takes efforts to increase the percentage of PPP investments in major ports and speed up the implementation of PPP projects in the Pipeline which are still in the under development/Inter-ministerial Consultation/Bidding stage.

(Para 120)

The Committee desires to know whether the PPP Cell in the Ministry is monitoring the projects on a regular basis and the effectiveness of such monitoring on the PPP projects.

(Para 121)

As required by the Committee, the Ministry provided statistics relating to the comparative performance of berths operated on PPP basis to that of the Port's own berths, which is placed at Annexure-IX. The Committee observes that the PPP berths, though less in number, outperform the Port's own berths in most ports. For example, in Chennai port, the 07 PPP berths handle a sizeable 63.68% of the total traffic, while the Port's own 19 berths handle only 36.32%. In New Mangalore Port, the 03 PPP berths handle a whopping 82.22% of the total traffic, while the Port's own 14 berths handle a meagre 17.78%.

(Para 122)

The Committee observes that a capacity addition of 103.03 MT has been made to the Major Ports in the last five years, in which an investment of Rs. 12,065 crores in 15 projects is under PPP mode. The Committee desires to know the contribution of PPP projects to this capacity addition in the last five years. The Committee also desires to know the planned capacity addition of the remaining 81 projects in the Pipeline for the years FY 2021-22 to FY 2024-25.

(Para 123)

The Committee has been informed that there is no dedicated investment mechanism for the maritime sector or even the infrastructure sector that impinges on the viability of project. The Committee recommends that the Ministry may examine the need to create a dedicated Maritime Development Fund for long-term financing of PPP projects in the maritime sector.

(Para 124)

VII. LOGISTICS AND EASE OF DOING BUSINESS

The Committee observes that since it is the older ports which have legacy pension issues and most of the newer ports have mainly contractual employees and a

fewer regular employees, pension liabilities cannot be cited as a universal contributory factor for high operating expenses. Besides, salary payments are obligation of every organization and cannot be a reason for high VRC. The requirement of 50% discount on cruise tourism is relatively recent and does not explain why the VRC has always been high in Indian ports. The Committee desires that the Ministry finds ways and means to reduce Vessel Related Charges and Lighthouse Dues to lower the logistics costs. The Committee also reiterates its earlier recommendation that the Ministry may explore the possibility of the government support for dredging in Major Ports to curtail high VRC in ports.

(Para 136)

The Committee recommends that each Major Port may make every effort to provide ancillary services to its users to improve the value addition in its supply chain.

(Para 138)

VIII. DIGITALISATION OF PORTS

The Committee is pleased to note the initiatives taken for digitalisation as it will increase the efficiency and productivity of Indian ports, enabling them to compete on the global scale. Shipping has traditionally been a conservative industry, slow to adapt to technological changes, mainly due to the enormous and complex logistics chains characteristic of this industry. However, adopting new technology is critical to increase operational efficiencies and competitiveness.

(Para 149)

The Committee notes with satisfaction the implementation of Port Operating System (POS), Terminal Operating System (TOS) and the National Logistics Portal – Marine (NLP-M) in all ports and the merging of Port Community Systems with National Logistics Portal-Marine. The Committee notes that other technologies like Blockchain Technology, Automation, and Artificial Intelligence are in the process of being implemented. The Committee would like to know the status of implementation of cutting-edge technologies like Digital Twin, which can be used to monitor and manage port operations, fleet management, optimization of the end-to-end-supply chain, Advanced Monitoring systems to monitor the state of the weather, Advanced Sensor Technology, Augmented Reality for maritime training, 3D Printing and other related technology-based applications.

(Para 150)

The Committee notes that the Port Authority of Singapore (MPA) has opted to build a 3D Printing and Additive Manufacturing Centre (Centre of Excellence in Modelling and Simulation of Next Generation Ports C4NGP) that will allow it to build a digital twin port. Singapore has recently inaugurated the Tuas Port which when fully operational in the 2040s, is expected to be the world's largest fully automated container

terminal in a single location, with an annual handling capacity of 65 million TEUs. The Rotterdam port with its digital transformation aims for ships to enter and leave the port autonomously in 2030. In Jebel Ali port after implementation of a Terminal Operating System, ZODIAC, the Container Terminal (CT3) will be able to integrate with any Terminal that uses the same operating system and can become part of the largest global network of supply chains.

(Para)151)

Private ports and Terminals in India have embraced the advanced technologies to surpass many of the Major Ports performances. The Committee has been informed that Digital twin technology is operational at the GTI Private Terminal at Nhava Sheva as well as the latest Terminal Operating Systems, navigation simulation for training, etc.

(Para 152)

While the Committee appreciates the initiatives taken for digitalization, it urges upon the Major Ports to adopt the state-of-the-art technologies to remain globally competitive. To stay abreast of the rapidly evolving technology should be integral to the digitalisation efforts of the ports.

(Para 153)

The Committee also observes that upgrading skill sets of employees and training programmes for the future workforce would be crucial to keep pace with the digitalisation of the maritime sector. The Committee recommends that the Ministry and the Major Port Authorities should partner with Maritime Institutes for conduct of training and capacity building programmes for port employees.

(Para 154)

IX. GREEN SHIPPING

169. The Committee notes the targets set by the Ministry for Green and Sustainable Ports. As per the requirement of the Committee, the Ministry has provided details of the status of the Environment Performance Indicators of some of the Major Ports (Annexure XI). The Committee notes that the figures present a dismal picture. Some Ports like Deendayal and New Mangalore Ports have achieved 100% targets in renewable energy while many ports for example, Chennai port, VoC Port, Mormugao Port have barely achieved 4-6% of the target. Paradip Port has achieved only 0.60% of the target. The Committee further notes that the target of usage of renewable energy in ports to 60% by 2030 i.e. within a span of seven years appears to be unrealistic given that the usage of renewable energy at present by most Major Ports is in the range of 10-12% only.

(Para 169)

The targets achieved so far by ports are very low in case of reduction in CO2 emissions and reduction in GHG emissions. Besides, in case of Green Hydrogen/Ammonia bunkers, most Major Ports are still in the planning stage. The target of reduction in carbon emissions by 30% taking 2023 as the Baseline Year also appears to be over-optimistic as the only major initiative in this direction is the Shore to Ship Power supply.

(Para 170)

The target for percentage of Port Equipment/vehicles electrified is more than 50% by 2030 but the Cochin Port has achieved only 8%, VoC Port 9% and Kamarajar 5%. Mumbai and Mormugao have not yet achieved any target.

(Para 171)

The Committee would also like to know the number of EV charging Stations by 2025 which would be considered adequate as the data provided by the Ministry shows the present status to be 01 in JNPA, 02 in New Mangalore and 01 in Kamarajar Port only.

(Para 172)

Zero-carbon fuels and technologies are not currently available at the size, scale or price, the shipping industry needs for wide-scale adoption. For a ship to be zero-emissions, it must be capable of operating on fuels like green hydrogen which produces zero carbon emissions. The Ministry has stated that the Cochin Shipyard is building a hydrogen fuel cell powered ferry vessel as a pilot project and all tests & trials for using the same for marine application will be completed by end of August, 2023. At the time of Demands for Grants 2023-24, the Committee had been informed that the project had been stalled and funds were unutilized due to non-availability of special grade aluminium plates. The Committee desires to know the exact status in the matter.

(Para 173)

The Committee observes that Shore to Ship Supply is a significant contributor to reduction in carbon emissions and recommends that the facility be provided to all vessels including cruise ships and coastal vessels. The Committee also observes that cargo like coal and iron ore cause a lot of dust pollution and recommends that all Major Ports should have covered sheds for the storage of such cargo to prevent pollution. The Committee hopes that the Ports endeavor to achieve 100% electrification of Port Equipment/Vehicles by 2030.

(Para 174)

The Committee observes that the Ministry has issued guidelines and set targets but does not appear to have formulated a Green Policy. The Committee refers to the green initiatives of the Maritime and Port Authority (MPA) of Singapore and Port of

Rotterdam placed at Annexure XII. The Committee recommends that the Ministry may form a similar blueprint for reduction of CO2 from different spheres of port activity rather than having a total reduction which may be more difficult to implement. The Committee also recommends that the Ministry may form a Green Policy comprising green initiatives and targets for different aspects of the port sector. The Committee also desires to know the infrastructure planned or developed for the green energy of the future as timely development of such infrastructure would be crucial for timely implementation of green policies. The Port of Rotterdam for instance is working on a public hydrogen pipeline through the port which in the future will be connected to the national and international hydrogen network

(Para 175)

X. CRUISE TOURISM

The Committee observed that Singapore cruises go to international waters and allow the casinos to be operated from there and then return which is why such cruises are able to attract more tourists and enquired from the Ministry whether similar cruise was operating in India. The Ministry informed that the Cordelia cruise goes out beyond 12 nautical miles which allows people to enjoy casinos. The Committee recommends that cruises could initiate from Mumbai to Mangalore and to Goa via Cochin from where the ship could go to international waters to attract more tourists.

(Para 180)

XI. ACTS AND LEGISLATIONS, MODEL CONCESSIONAIRE AGREEMENT AND THE ISSUES IN PRIVATE PUBLIC PARTNERSHIPS

The Committee observes that the JNPA, the first Landlord Port in the country, is a good Landlord Port model that showcases the advantages which the Major Ports can benefit from. JNPA, the top Container Port of the country, ranks 54 in the global rankings and the efficiencies brought to the port have enabled it to achieve performance Parameters which are far ahead of the rest of the Major Ports.

(Para 186)

The Committee observes that the operational cost of a PPP operated berth will be substantially lower compared to a port operated berth due to several reasons like less number of staff employed, improved productivity due to adoption of technology, etc. There is no cost involved to the Port Authority as the entire cost of port operations is undertaken by the PPP operator. The Landlord Port Model has been a successful global practice and the Committee recommends that the Ministry may make all-out efforts to implement the model in the remaining Major Ports.

(Para 187)

ISSUES ARISING OUT OF THE PROSPECTIVE APPLICATION OF THE NEW MODEL CONCESSION AGREEMENT

The Committee had requested the Ministry to give its comments on the issue of extending the benefits of the MCA, 2021 to both the existing as well as new Concessionaires. The Ministry has put forth the arguments that the PPP projects are executed through Concession Agreements which are legally binding and are governed by the policies that are applicable in that time period. Any post-bid changes in the Concession Agreement is open to litigation. The Ministry has also informed that a Committee consisting of the Chairmen of VoCPA, ChPA & JNPA was constituted in May, 2023 for deliberation on whether the provisions of MCA, 2021 can be made retrospective and the report of that Committee is awaited.

(Para 191)

The Committee observes that within the past two decades, the Model Concessionaire Agreement has been changed thrice, in 2008, 2018 and 2021 (Comparative statement of the provisions of the three MCAs placed at Annexure XIV). The first revision came after a decade and brought only minor changes in a few of the provisions. The second revision came within 03 years and brought about a major overhaul in existing regulations, with the introduction of market based tariff fixation, abolition of the authority of TAMP, provisions for change in cargo, etc. It is not surprising that the existing Concessionaires find themselves in a disadvantageous position vis-a-vis the new Concessionaires under the MCA, 2021.

(Para 192)

The Committee also observes that the new Agreement was issued with the purpose of countering the lukewarm response of the private sector in PPP projects and to provide a framework to increase PPP participation to boost port performances. The Committee observes that in 2019, on the issue of periodic revision of SoR (Schedule of Rates) for land, it had been decided not to apply revision of SoR for land every 05 years for PPP projects as it may not be in the overall interest of the Major Ports. The Committee feels that the retrospective application of the MCA, 2021 should be examined in the same spirit. The Concessions given to the private operators generally are passed on to exporters/importers by leveraging costs and therefore the general public can only benefit by these measures. The Committee feels that the Ministry may take these concerns into account while examining the requests of the existing Concessionaires.

(Para 193)

The Committee notes that the issue is under examination by a Committee consisting of the Chairmen of various Major Ports and desires that the Ministry may update the Committee on its outcome.

(Para 194)

Upon enquiry by the Committee, the Ministry has submitted that the MCA, 2021 has been made more investor friendly. In the new MCA, 2021 the total project cost shall be deemed to be modified to the extent of variation in Price Index occurring in respect of Adjusted Equity as defined in Article 1.1, The revised MCA, 2021 also provides for payment of Royalty by private operators to port on per Million Ton of Cargo handled instead of Percentage of Gross Revenue Basis. As per Article 9.2 clause (c), royalty per MT of Cargo/TEUs will be indexed to as per variations in the Wholesale Price Index (WPI) annually as declared by the Ministry of Commerce and Industry. The royalty payment to ports will undergo the same variation as WPI variation which is a rise for general inflation and is not an increase on royalty. Regarding Schemes like Export Promotion Capital Goods (EPCG) and Service Export from India Scheme (SEIS), they are operated by the Ministry of Commerce and Industry.

(Para 200)

The Committee observes that while clauses relating to Amendments, Modifications etc are built into almost every agreement or contract, at the same time Agreements have a certain sanctity and adherence to its conditions is always expected. A Concession Agreement is signed, knowing fully well the duration of the contract, the market conditions and the risks involved and it is expected that the Concessionaire evaluated all costs and benefits at the time of the agreement.

(Para 201)

As such, Private Public Partnerships require a framework that would enable the private sector partner to secure a reasonable return while enabling value addition for public resources. This can only be achieved by establishing clear and transparent norms for the PPP and by entering into unambiguous and specific contractual relationship. Concession Agreements are generally made for 30 years and with the rapidly changing market scenario, every change cannot be anticipated at the bidding stage in contracts spanning three decades. In fact private players are now looking for even longer Concession periods in the port sector. The Adani Ports and Special Economic Zone (APSEZ) has won a bid to build a Greenfield port in Tajpur, West Bengal for a Concession period of 99 years. The MCA, 2021 also has provisions for 45 years Concession Period for multi-phase investments. The port sector is capital intensive and longer Concession periods which would lead to gestation for a larger Capital cycle may become the norm in future. It is unimaginable that the conditions prevailing at the time of the Agreement would remain the same in the next century.

(Para 202)

Regarding the argument that the Port Authorities are reluctant to make changes due to audit/vigilance, the Committee observes that the issue of Royalty or revenue share raised above had, in fact been raised by the CAG in its 2015 Performance Audit Report of Public Private Partnership Projects. The project under examination of the

CAG was the agreement of the JNPA with the Nhava Sheva International Container Terminal (NSICT) for operation of a Container Terminal where the JNPA had switched to the revenue sharing model after 18 years of operation from the earlier royalty model due to high royalty rate per TEU which increased progressively. The CAG had commented adversely on the design deficiencies of the model due to which the port had to migrate to the revenue share mode after 18 years of operation. The CAG had also commented that a PPP Project would succeed only if the risks are uniformly apportioned between the two parties and that a Concession Agreement is unlikely to succeed if it has conditions which are harsh on the operator.

(Para 203)

In the considered opinion of the Committee, much of the issues arising from the Concession Agreements can be avoided by adopting the right models for the project from the beginning and ensuring that the Concessionaire Agreements retain an element of flexibility to incorporate necessary changes which would benefit both parties. Rigid Agreements have the potential to defeat the purpose of successful PPP partnerships. While the provisions of the Agreement should be largely adhered to, no purpose is served by an unyielding observance of faulty policies. The Committee recommends that the Ministry may examine the issues raised by the IPPTA in the light of the above position.

(Para 204)

XII. INITIATIVES FOR LEGAL DISPUTES AND ARBITRATION

The Committee observes that a thorough discussion on all aspects of a proposed policy with all stakeholders and taking into consideration the viewpoints of the stakeholders should be sufficient to make a policy which would address all the concerns of the stakeholders to the extent possible. It is understandable that once a policy is in place, the Government does not wish to make frequent changes in it. However, the success of the PPP projects is essential for the achievement of the Maritime India Vision and the Ministry should make every effort to address the stakeholders concerns. The Committee recommends that in case of contentious issues emerging from the discussions with the stakeholders, the Ministry may again consult the stakeholders and try to resolve their concerns. The Committee also recommends that the Ministry may explore the possibility of creating a standing mechanism consisting of representatives of the Ministry, concerned Port and the PPP Operators to discuss outstanding issues at specified periodic intervals so that issues can be settled at an early stage without resorting to arbitration which has not proved to be very successful.

(Para 208)

The Committee has been informed by the IPPTA that in many cases, the Ports have not honoured the verdict of the Expert called for amicable settlement and have also refused to refer the issue to arbitration. The Committee would like to have the

views of the Ministry on this issue. The Committee desires to have a list of such cases where amicable settlement was not reached through discussion and it was not referred to arbitration or the Conciliation Committees. The Committee wishes to know the action taken by the Ministry in such cases for resolution of the issues.

(Para 209)

The Committee observes that the Adjudicatory Board was introduced under the Major Port Authorities Act, 2021 and yet no Board has been formed as yet. The Committee desires to know the reasons for non formation of the Board and recommends that the same may be constituted at the earliest.

(Para 210)

Of the dispute mechanisms, it appears that only the Conciliation and Settlement Committees have had reasonable success in the resolution of disputes. The Ministry has provided information that out of 43 cases referred to the CSC, 15 have been resolved while 8 are at final stages of settlement. The Committee recommends that the Ministry may provide all assistance to such Committee for their functioning and ensure that Port Authorities have no hesitation either in referring the disputes to these Committees or in implementing their decisions.

(Para 211)

The Committee also notes that the vision is to have 85% PPP partnerships in Major Port projects by 2030. The increase in the number of partnerships would throw up more issues between the parties which would need successful arbitration otherwise more projects would get bogged down in arbitration issues. The Committee recommends that the Ministry pay adequate attention to resolution of arbitration issues and setting up of successful forums for arbitration for implementation of PPP projects

(Para 212)

XIII. PORT EMPLOYEES WELFARE

Upon enquiry by the Committee, the Ministry gave details of the sanctioned strength of employees and vacancies at the 12 Major Ports (ANNEXURE XV). The Committee observes that a majority of the Major Ports have a shortfall of vacancies and some like the Mumbai Port, SMPK, Cochin Port, Paradip Port and Chennai Port have about half of the sanctioned posts vacant. The Committee desires to be informed about the reason for the large number of vacancies, the duration for which the posts have been vacant and the timeline by which the vacancies are likely to be filled up. The Committee observes that JNPA and SMPK have employed a large number of contractual workers, presumably against the vacant regular posts. The Committee also observes that there appears to be a great disparity in the number of employed personnel across the ports. For instance, Kamarajar Port, VoC Port and JNPA have sanctioned strengths of only 92, 458 and 1660 employees respectively while Mumbai port and SMPK have

sanctioned strengths of 7417 and 10,096 of which as stated earlier about half are vacant. Even keeping in view the varying capacities and traffic handled by the ports, the disparity in number of employees is striking. The Committee observes that automation and mechanization of operations in ports like JNPA have reduced the employee strength. The private ports of Pippavav and Jaigarh in Gujarat have employee strengths of 500 and 1700, respectively.

(Para 213)

The Committee recommends that ports which have a huge number of vacancies especially Mumbai Port and SMPK may review their sanctioned strength and take action to either fill the vacancies if necessary or abolish posts which are lying vacant for a long time. The Committee also exhorts the ports to expedite mechanization so that the employee strength could be restricted to only the essential posts.

(Para 214)

The Committee notes the different Welfare Schemes for the Shipbuilding, Ship breaking and Dock Workers. The Committee desires to know whether residential quarters are provided to the employees and whether skill development courses are offered for upgradation of their skills. The Committee also desires to know whether the contractual workers are given the same benefits as regular workers.

(Para 215)

* * *

ANNEXURES

Annexure-I

Details of 12 Major Ports in India					
S. No.	Name of Port	Location of Port	Year of Origin	Draft Length (in meters)	Capacity 2020-21 (In MTPA)
1	SMPK	East Coast, Kolkata, West Bengal	1870	7.2-7.5	90.8
2	Paradip Port	East Coast, Odisha	1966	14.5	259
3	Vizag	East Coast, Andhra Pradesh	1963	14.5 to 18.1	134
4	Kamarajar	East Coast, Tamil Nadu	2001	13.5 to 16	91
5	Chennai	East Coast, Tamil Nadu	1875	13 to 17	135
6	VOCP	East Coast, Tuticorin, Tamil Nadu	1974	14.2 to 13.7	111
7	Cochin	West Coast, Kochi, Kerala	1940	14.5	78.6
8	New Mangalore	West Coast, Karnataka	1975	14	105
9	Mormugao	West Coast, Goa	1885	14.4	63.4
10	Mumbai	West Coast, Maharashtra	1872, Second Oldest Port	14	84
11	JNPT	West Coast, Gujarat	1989	15	141
12	Deendayal	West Coast, Gujarat	1955	13 to 15	267
Total					1561
<i>Sources: Annual Report Ministry of Ports, Shipping & Waterways 2021-22</i>					
<i>Annual Reports of various Major Ports</i>					
<i>World Port Source-The Port of Kolkata</i>					
<i>MoPSW PPT 24.04.2023</i>					

PERFORMANCE PARAMETERS OF MAJOR PORTS

**TABLE SHOWING CARGO HANDLED FOR THE LAST THREE YEARS
(IN MTPA)**

Total Cargo handled by 12 Major Ports in India from 2020-21 to 2021-22								
S.No	Name of Port		Total Traffic Handled (in MMT)			Capacity 2021-22 (In MTPA)	Capacity 2022-23 (In MTPA)	Capacity Utilization- 2022-23 (%)
			2020- 21	2021- 22	2022- 23			
1	SMPK	KDS	61.36	58.175	66	90.77	92.77	71
		HDC						
2	Paradip Port		114.55	116.13	135	259	289.75	47
3	Vizag		69.84	69.03	74	134.18	143.68	51
4	Kamarajar		25.89	38.74	42	91	91	46
5	Chennai		43.55	48.56	44	135	136	32
6	VOCPT		31.79	34.12	35	111.46	111.46	32
7	Cochin		31.50	34.55	36	78.6	79.9	46
8	New Mangalore		36.50	39.30	41	104.73	114.96	36
9	Mormugao		21.99	18.46	17	63.4	63.4	27
10	Mumbai		53.32	59.89	64	84	84	76
11	JNPT		64.81	76.00	104	141.37	141.37	74
12	Deendayal		117.57	127.10	137	267.1	269.1	51
Total			672.67	720.06	795	1560.61	1617.39	49

**TABLE SHOWING CAPACITY OF MAJOR PORTS FOR THE LAST FIVE YEARS
(FY 2019-2023)**

Year	Capacity (In MTPA)
FY 2018-19	1514.09
FY 2019-20	1534.91
FY 2020-21	1560.61
FY 2021-22	1597.59
FY 2022-23	1617.39

DETAILS REGARDING AVERAGE TURNAROUND (TRT) OF THE MAJOR PORTS (IN HOURS) AND AVERAGE SHIP OUTPUT PER BERTH DAY OF MAJOR PORTS

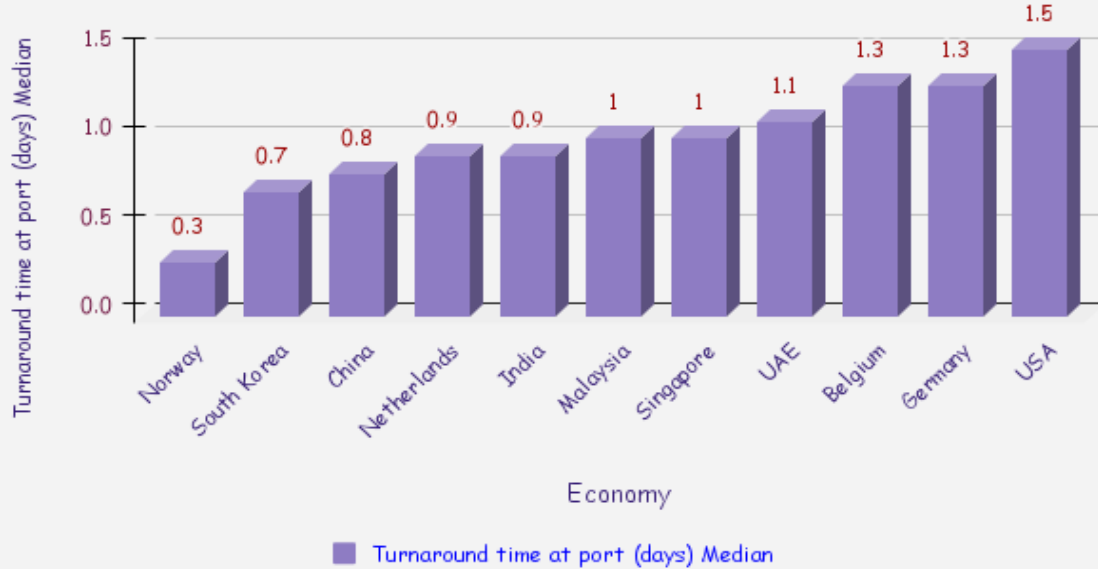
Port Name	Period	Avg. Total TRT (In Hours)	Average Output Per Ship Berthday (In Tonnes)
VOCPA	FY18-19	47.04	15353
Visakhapatnam	FY18-19	60.22	13790
SMPA(KDS)	FY18-19	92.08	4408
SMPA(HDC)	FY18-19	72.95	9593
Paradip	FY18-19	60.35	26197
New Mangalore	FY18-19	46.21	18126
Mumbai	FY18-19	60.42	10409
Mormugao	FY18-19	63.06	12163
Kamarajar	FY18-19	47.27	24258
JNPA	FY18-19	51.22	26498
Deendayal	FY18-19	72.23	17363
Cochin	FY18-19	35.21	22839
Chennai	FY18-19	47.41	17288
VOCPA	FY19-20	44.88	15056
Visakhapatnam	FY19-20	58.27	14901
SMPA(KDS)	FY19-20	78.29	4215
SMPA(HDC)	FY19-20	86.88	10121
Paradip	FY19-20	56.1	25091
New Mangalore	FY19-20	45.63	15774
Mumbai	FY19-20	53.25	10993
Mormugao	FY19-20	62.96	13258
Kamarajar	FY19-20	44.4	23421
JNPA	FY19-20	29.52	27677
Deendayal	FY19-20	70.56	16890
Cochin	FY19-20	34.7	23709
Chennai	FY19-20	48.01	16470
VOCPA	FY20-21	46.08	15696
Visakhapatnam	FY20-21	66.09	12865
SMPA(KDS)	FY20-21	76.22	3948
SMPA(HDC)	FY20-21	74.16	9153

Paradip	FY20-21	58.1	23943
New Mangalore	FY20-21	45.89	15690
Mumbai	FY20-21	59.07	10694
Mormugao	FY20-21	75.66	12431
Kamarajar	FY20-21	42.97	21326
JNPA	FY20-21	28.56	26875
Deendayal	FY20-21	67.92	14497
Cochin	FY20-21	35.83	22513
Chennai	FY20-21	51.38	15928
VOCPA	FY21-22	48.48	16811
Visakhapatnam	FY21-22	73.83	11923
SMPA(KDS)	FY21-22	66.27	3968
SMPA(HDC)	FY21-22	51.36	10428
Paradip	FY21-22	53.16	27295
New Mangalore	FY21-22	45.99	16465
Mumbai	FY21-22	73	9091
Mormugao	FY21-22	71.77	11824
Kamarajar	FY21-22	46.38	24292
JNPA	FY21-22	28.08	28938
Deendayal	FY21-22	60.96	15501
Cochin	FY21-22	34.64	24457
Chennai	FY21-22	53.19	15497
VOCPA	FY22-23	46.8	15852
Visakhapatnam	FY22-23	73.19	12421
SMPA(KDS)	FY22-23	55.68	4590
SMPA(HDC)	FY22-23	50.8	11211
Paradip	FY22-23	46.27	31050
New Mangalore	FY22-23	43.09	18489
Mumbai	FY22-23	67.42	10035
Mormugao	FY22-23	61.47	15699
Kamarajar	FY22-23	45.4	26075
JNPA	FY22-23	28.47	27643
Deendayal	FY22-23	77.28	16074
Cochin	FY22-23	33.41	24517
Chennai	FY22-23	48.22	15648

COMPARISON OF TURN AROUND TIME WITH GLOBAL STANDARDS

Table 1 - Comparison of Turn Around Time

(India vs. top busiest global ports)



Source: Logistics Performance Index (LPI) Report-2023

CONTAINER FREIGHT VOLUME

(i) Average Container throughput of Major Ports

Major Port-wise Container Traffic (in 000' Tonnes and 000' TEUs)						
S.No.	Port Name	2019-20		2020-21		Capacity of Ports in MTPA)
		000' Tonnes	000' TEUs	000' Tonnes	000' TEUs	
1	SMPK	12799	844	11164	687	90.77
2	Paradip	222	12	279	16	259
3	Vizag	8649	409	8178	481	134.18
4	Kamarajar	2524	128	3871	198	91
5	Chennai	26710	1384	26768	1387	135
6	VOCP	16436	804	15023	762	111.46
7	Cochin	8628	620	9550	690	78.6
8	New Mangalore	2278	153	2291	150	104.73
9	Mormugao	418	32	307	22	63.4
10	Mumbai	60940	5031	57746	4677	84
11	JNP	291	27	255	25	141.37
12	Deendayal	6967	447	8279	515	267.1
All Ports		146862	9891	143711	9610	1560.61

(Source: Basic Port Statistics of India 2020-21)

The ranking of countries in terms of volume of container port traffic in Twenty-foot equivalent unit (TEU) according to data from the World Bank

Rank	Country	Container port traffic in TEUs	Year
1	China	242,030,000	2019
2	United States	55,518,880	2019
3	Singapore	37,983,000	2019
4	South Korea	28,955,300	2019
5	Malaysia	26,215,100	2019
6	Japan	21,708,860	2019
7	Germany	19,596,420	2019
8	United Arab Emirates	19,171,000	2019
9	Hong Kong	18,360,000	2019
10	Spain	17,372,960	2019
11	India	17,053,200	2019
12	Netherlands	14,986,800	2019
13	Indonesia	14,763,630	2019
14	Vietnam	13,658,930	2019
15	Belgium	13,570,790	2019
16	Turkey	11,679,100	2019
17	Brazil	10,982,130	2019
18	Thailand	10,755,780	2019
19	United Kingdom	10,276,500	2019
20	Italy	10,014,210	2019
	World	795,947,290	2019

COMPARISON OF JNPA/SINGAPORE AND PARADIP/QINGDAO PORTS IN PERFORMANCE PARAMETERS

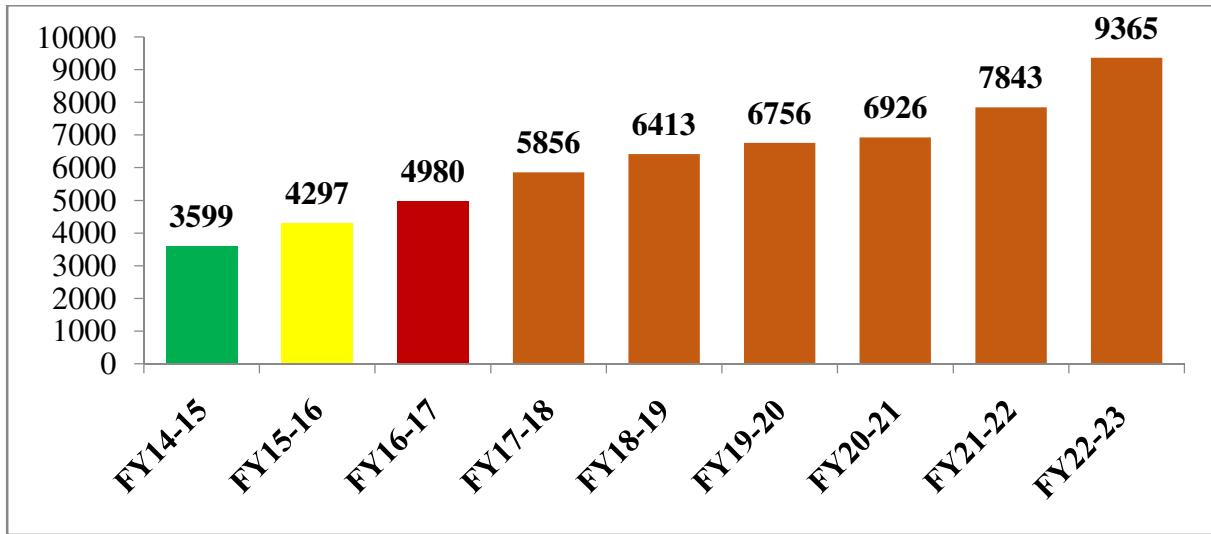
PARAMETERS	JNPA	SINGAPORE
CONTAINER THROUGHPUT (IN TEUs)	6 million +	37.5 million
Turnaround Time (Container)	22 hrs	18 hrs
Draft (in mts)	15	18
Global Rank	54	31

PARAMETERS	PARADIP *	QINGDAO*
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CONTAINER THROUGHPUT (IN TEUs)	135.3 million +	630 million
Turnaround Time (Container)	52 hrs	40.8 hrs
Draft (in mts)	14.5	17
Global Rank	NA	42

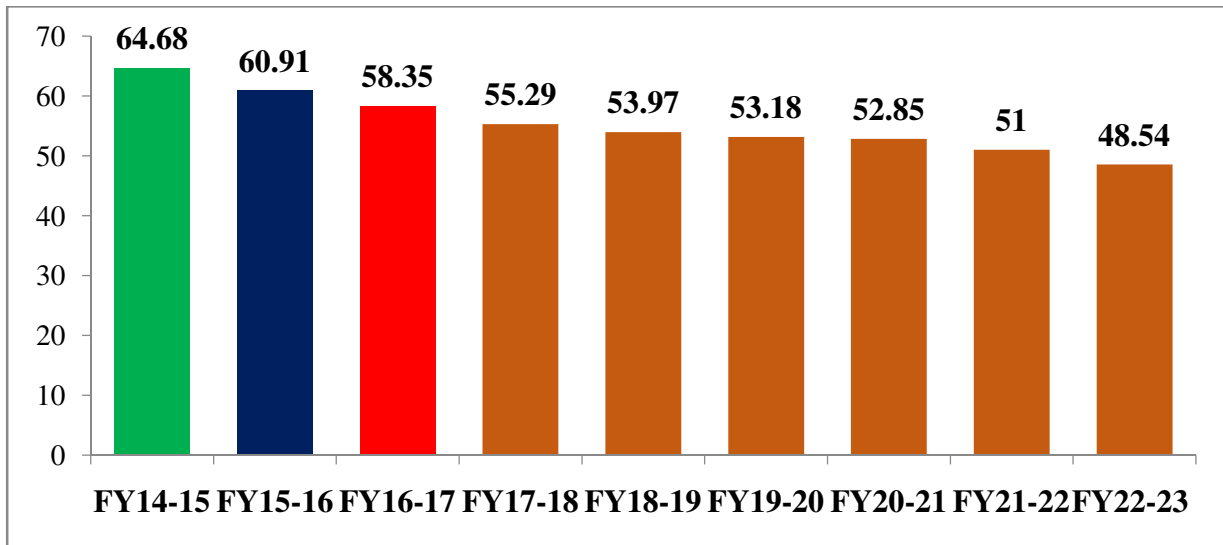
* Both Paradip and Qingdao are bulk cargo ports

FINANCIAL PERFORMANCE OF MAJOR PORTS



Operating Ratio (%) - Major Ports

(Operational Expenditure to Total Income)



Operating Surplus - Major Ports

(Difference between Operating Income & Operating Expenditure)

ANNEXURE IV

S. No.	Port	Land leased or sold
1	Chennai Port	Nil
2	Cochin Port	1055 acres leased
3	Deendayal Port	14755 acres allotted
4	JNPA	291 acres leased
5	Kamarajar Port	507.19 acres leased
6	Mumbai Port	Nil
7	Mormugao Port	71.59 acres leased
8	New Mangalore Port	479 acres leased
9	Paradip Port	1061 acres leased
10	Syama Prasad Mookerjee Port	27.75 acres of HDC and 22.93 acres of KDS
11	VO Chidambaranar Port	1432 acres allotted
12	Visakhapatnam Port	3579.62 acres leased

ANNEXURE-V

STATUS OF MECHANISATION OF BERTHS

S.No.	Name of Port	Status	Total number of berths
1	ChPA	58% of CCTPL and CITPL, 32% of liquid cargo handling, 4% of break-bulk cargo and 6% of dry bulk cargo are mechanized	26
2	CoPA	9 berths mechanized and 3 berths partly mechanized	22
3	DPA	Berth No.14 has been planned to be mechanized and 04 new HMC proposed to be procured	35
4	JNPA	All the container berths (10) are installed with 37 Nos. of rail mounted quay cranes and Liquid berth (2) are installed with marine loading arms	17
5	KPL	All berths are mechanized	8
6	MbPA	5 Berths at Jawahar Dweep (JD) and 2 Berths at Pir Pau (PP) are already mechanized	9
7	MPA	3 berths have been mechanized. 2 more to be awarded on PPP basis	31
8	NMPA	9 berths are mechanized	17
9	PPA	14 berths out of 18 berths are mechanized	21
10	SMPA	4 berths have been mechanized and one more has been awarded on PPP basis	35 berths
11	VOCPA	7 berths mechanized	16
12	VPA	Berth No. 7, 8, 9 and I to VI are mechanised. North Cargo Berth-III and Berth No. 9 are in process of mechanisation.	29

ANNEXURE VI

Major Ports Connectivity and Services to be provided to Cargo Handlers

Major Ports of Western and Eastern Coast of India are connected to DFC network with feeder routes as shown in table below:

State	Port	Feeder Route
Gujarat	Mundra	Mundra Port-Gandhidham-New Chadotar
	Kandla	Kandla Port-Gandhi Dham- Palanpur
	Pipavav	Pipavav-Suredranagar-Viramgram-Mehsana
	Dahej	Bharuch -Dahej
	Hazira	Hazira-Surat
Maharashtra	JNPT	New JNPT(Terminal Station)
	Vadhavan (Proposed)	Connectivity being planned by IR
	Nandgaon(Proposed)	Connectivity being planned by IR
West Bengal	Diamond Harbor	Dankuni--Diamond Harbour
	Haldia	Dankuni-Andul-Panskura-Haldia

Existing feeder routes and their connectivity between proposed DFC junctions and existing ports are shown in line diagram at Annexure-III.

Future Plans:

(i) As for the connectivity with other ports of East Coast and mine rich regions, three future Dedicated Freight Corridors, namely East Cost (Kharagpur-Vijaywada), East West (Palghar-Bhusawal-Dankuni&Rajkharswan-Andal) and North South (Itarsi-Vijaywada) are being planned. As per directions of Ministry of Railways, preparation of Detailed Project Reports (DPRs) of the following routes are under consideration. The port connectivity is also included in the DPRs. The details are indicated at point No.12 (para-II).

S. No.	New DFC	Length (in KMs)
1.	East Coast Corridor – Kharagpur to Vijaywada	1115
2.	(a) East-West Sub Corridor (i)-Bhusawal-Dankuni and extended from *Bhusawal to Palghar	1673 + 498 =2171
	(b) East-West Sub Corridor (ii)-Rajkharswan – Kalipahari – Andal	195
Sub Total for East-West Both Corridor		2366
3.	North – South Sub Corridor – Vijaywada – Nagpur – Itarsi	975

(ii) Proposed East Coast Corridor passes through three states- West Bengal, Odisha, and Andhra Pradesh. These states have Coast line around 1000 km with important ports at Haldia,

Dhamra, Paradeep, Visakhapatnam, Gangavaram and Kakinada. Many new ports like Gopalpur, Astaranga, Subarnarekha & Bhavanpadu are also under development. Proposed East Coast Corridor can connect these ports to hinterlands through feeder routes to provide faster movement of freight traffic. The sanctioning of this corridor will significantly enhance the port connectivity and throughput of goods from these ports

ANNEXURE VII

**Details of the 8 PPP projects worth Rs. 9,544 crores which have been awarded in
FY22-23**

S. No.	Port	Project Name and Monetization value	Project of FY	Status
1	JNPA	Jawaharlal Nehru Port Authority (JNPA) - Container Terminal on UOMT basis (~ INR 865 Crore)	2021-22	Project awarded on 28.06.2022.
2	PPA	Paradip Port Authority (PPA), Odisha – Deepening and optimization of Inner Harbour including Western Dock (~ INR3000 Crore)	2021-22	Project Awarded on 27.5.2022
3	VPA	Visakhapatnam Port Authority (VPA)- Development of WQ-7& 8 on DBFOT basis (~ INR 288 Cr)	2021-22	Project Awarded on 25.1.2023
4	VoCPA	V.O. Chidambaranar Port Authority(VOCPA) - Development of Berth No. 9 as Container Terminal on DBFOT basis (~INR 437 Crore)	2021-22	Project Awarded on 08.08.2022
5	DPA	Development of Container Terminal at Tuna Tekra, Deendayal Port on BOT basis under PPP mode (~INR 4,244 crore)	2022 -23	Project Awarded on 27.01.2023
6	JNPA	Operationalization of Coastal Berth and Shallow Water Berth (~INR 344crore)	2022 -23	Project Awarded on 27.10.2022
7	VPA	Mechanization of EQ-7 berth (~INR200Crore)	2022 -23	Project Awarded on 30.01.2023
8	VPA	Mechanization of Berth WQ-6 (~INR 166 Crore)	2022 -23	Project Awarded on 30.01.2023

ANNEXURE-VIII

STATUS OF SAGARMALA PROJECTS UNDER THE VARIOUS MAJOR PORTS

S.No.	Name of Project	Project Cost (Rs. Cr)	Implementing Agency	Project Status: March 22
1	Development of Cruise Passenger Facilitation Centre at Chennai Port Authority	18	Chennai Port Authority	Completed
2	Development of Storage area for container at Mormugao	15	Mormugao Port Authority	Completed
3	Additional Transshipment at Goa	56	Mormugao Port Authority	Completed
4	RFID Implementation - Mormugao	5	Mormugao Port Authority	Completed
5	Refurbishment and Capacity enhancement of Coastal liquid terminal - COT and NTB at CoPT	20	Cochin Port Authority	Completed
6	5th Oil Berth at Jawahar Dweep - JD5 including capital dredging	1050	Mumbai Port Authority	Completed
7	Bunkering Terminal at Jawahar Dweep	50	Mumbai Port Authority	Completed
8	Offshore Container Terminal - Mumbai Port	1286	Mumbai Port Authority	Completed
9	Redevelopment - Facelift of Indira Dock - Mumbai Port	55	Mumbai Port Authority	Completed
10	Upgrading and modernisation of International Cruise Terminal at BPX - Indira Dock - Mumbai	303	Mumbai Port Authority	Under Implementation
11	Setting up of a Floating Storage and Regasification Unit -FSRU - Mumbai	2600	Mumbai Port Authority	Under Implementation
12	Multi User Liquid Terminal at Puthuvypeen - Cochin Port	240	Cochin Port Authority	Completed
13	Development of Marina at Prince Dock - Mumbai	364.84	Mumbai Port Authority	Sanction of Project
14	RFID - Paradip	10	Paradip Port Authority	Completed
15	2 nos of Harbour mobile cranes - Paradip	70	Paradip Port Authority	Completed
16	Deep Draft Iron Ore Export Berth on BOT basis - Paradip	740	Paradip Port Authority	Completed

17	Multi Purpose Berth to handle clean cargo including container on BOT basis at Paradip port	431	Paradip Port Authority	Completed
18	Mechanisation of EQ1- EQ2 and EQ3 Berths on BOT basis at Paradip Port	1438	Paradip Port Authority	Completed
19	Development of IWT Terminal at Paradip Port	80	Paradip Port Authority	Completed
20	New Deep Draft Coal Import Berth on BOT basis at Paradip	656	Paradip Port Authority	Completed
21	Development of Cruise Berthing Facilities cum Cruise Passenger Facilitation Centre near Boat Train Pier Jetty-Cochin	28	Cochin Port Authority	Completed
22	LPG Terminal at South oil jetty in Paradip	690	Paradip Port Authority	Completed
23	Capital Dredging of BOT basin - Paradip	86	Paradip Port Authority	Under Implementation
24	Drive through Container Scanner -1 No. - V. O . Chidambaranar	50	V. O. Chidambaranar Port Authority	Completed
25	RFID - V. O . Chidambaranar	5	V. O. Chidambaranar Port Authority	Completed
26	Mechanization of Berth IX at V. O . Chidambaranar	93	V. O. Chidambaranar Port Authority	Completed
27	Development and Operation of a full-fledged Truck Parking Terminal adjacent to NH7A opposite to Fisheries college at V. O . Chidambaranar	25	V. O. Chidambaranar Port Authority	Completed
28	Construction of North Cargo berth-II for handling bulk cargoes on DBFOT basis - V. O . Chidambaranar	335	V. O. Chidambaranar Port Authority	Completed
29	Conversion of 8th berth as container terminal on BOT basis for a period of 30 years - V. O . Chidambaranar	312	V. O. Chidambaranar Port Authority	Completed
30	Provision of Scanner - Cochin	15	Cochin Port Authority	Completed

31	Coastal berth with dredged depth of 10.0m to handle vessels up to 15000 DWT -length 150m at VoCPT	36	V. O. Chidambaranar Port Authority	Completed
32	Development of a PPP berth for construction material	65	V. O. Chidambaranar Port Authority	Under Implementation
33	Upgradation of Existing Coal Jetty -CJ1 and CJ2 at V. O . Chidambaranar	98	V. O. Chidambaranar Port Authority	Completed
34	Deployment of Additional Harbour Mobile Cranes at III and IV berth - V. O . Chidambaranar Port	29	V. O. Chidambaranar Port Authority	Completed
35	Construction of NCB3 at VOCPT	37	V. O. Chidambaranar Port Authority	Completed
36	Extension of existing container terminal at VPT on DBFOT basis	633	Visakhapatnam Port Authority	Completed
37	Conversion of existing berths EQ-2- EQ-3- EQ-4 and part of EQ-5 into two numbers of berths - Visakhapatnam	182	Visakhapatnam Port Authority	Completed
38	Upgradation of OB 1 and 2 for Iron Ore Handling - Phase 1	395	Visakhapatnam Port Authority	Completed
39	Development of WQ N -WQ-7 and WQ-8 - Visakhapatnam	243	Visakhapatnam Port Authority	Completed
40	Development of New Berth EQ 1A - Visakhapatnam	313	Visakhapatnam Port Authority	Under Implementation
41	RFID system - Visakhapatnam Port	7	Visakhapatnam Port Authority	Completed
42	Container scanners - Visakhapatnam Port	30	Visakhapatnam Port Authority	Completed
43	Supply- Erection- Testing and commissioning of 2 HMCs of capacity greater than 100MT at east quay berth - Visakhapatnam Port	39	Visakhapatnam Port Authority	Completed
44	Construction of coastal Berth at VPT	43	Visakhapatnam Port Authority	Completed
45	Improving the capacity utilisation of OR-I & OR-II berths in inner	168	Visakhapatnam Port Authority	Under Implementation

	harbour of Visakhapatnam Port			
46	New Port at Vadhavan	65544.55	Jawaharlal Nehru Port Authority	Sanction of Project
47	Coastal Cargo Berth at ChPT	80	Chennai Port Authority	Completed
48	RFID Implementation at KPL	12	Kamarajar Port Limited	Completed
49	Multi Cargo Terminal at KPL on DBFOT -Design- Build- Finance- Operate and Transfer basis	164.37	Kamarajar Port Limited	Completed
50	LNG Import Terminal at Ennore	5151	Kamarajar Port Limited	Completed
51	RoB cum Flyover at Ranichak level crossing at KoPT	127.8	Haldia Dock Complex	Completed
52	Flyover at JNPT Y Junction	102	Jawaharlal Nehru Port Authority	Completed
53	Development of Ro-Ro Terminal cum GCB-2 at KPL	188.13	Kamarajar Port Limited	Under Implementation
54	Capital Dredging Phase 4 at KPL -To provide 18m deep draft	153.5	Kamarajar Port Limited	Under Implementation
55	Southern port Access road connectivity to Ennore port	195	Kamarajar Port Limited	Under Implementation
56	RoB on Kandla-Kutch Road	256	Deendayal Port Authority	Under Implementation
57	Evacuation road for Container Terminal -330m extension to DPW terminal at JNPT	101	Jawaharlal Nehru Port Authority	Under Implementation
58	Road circulation plan for ease of movement of break bulk cargo at Mormugao	34	Mormugao Port Authority	Under Implementation
59	Construction of Coal berth 4 at KPL	290.67	Kamarajar Port Limited	Completed
60	Construction of Container Terminal Phase 1 Stage 1 and 2 at KPL	1270	Kamarajar Port Limited	Under Implementation
61	Additional TNEB Coal Berth CB 3 at Ennore Port	254.34	Kamarajar Port Limited	Completed
62	Construction of IOCL Oil jetty on Captive basis at KPL	921	Kamarajar Port Limited	Under Implementation
63	Strengthening of existing revetment at eastern seashore of	63	Chennai Port Authority	Completed

	Chennai Port			
64	Improvement of road connectivity to facilitate trade and port users at KoPT	15	Syama Prasad Mukerjee Port Authority	Completed
65	Development of paved storage yard at Chennai Port for handling export cargo	54	Chennai Port Authority	Under Implementation
66	Mobile X-ray Container Scanner -1 no systems at KPL	35	Kamarajar Port Limited	Completed
67	Development of Rail Connectivity for BOT berths at Paradip [JSW is implementing the project]	79.7	Paradip Port Authority	Completed
68	Electrification of east yard revamped lines. 23.489 TKM	20	Visakhapatnam Port Authority	Completed
69	Capital Dredging Phase 3 at KPL	334	Kamarajar Port Limited	Completed
70	Road Connectivity to Hare island -V. O . Chidambaranar Port	12	V. O. Chidambaranar Port Authority	Completed
71	Fly over bridge from Sea-horses junction area to dock area at Visakhapatnam Port	259.15	Vishakhapatnam Port Authority	Under Development
72	Construction of Container Pre-Stacking Yard in the area of Port access road - KPL	24	Kamarajar Port Limited	Completed
73	Modification of existing Iron Ore Terminal to handle coal -SIOTL - KPL	228	Kamarajar Port Limited	Under Implementation
74	Upgradation of the track 10-12-14-16-18-19-20-21- 22 and 23 at EJC yard of KoPT	47	Syama Prasad Mukerjee Port Authority	Completed
75	Multi-User Liquid Terminal-II at Ennore	393	Kamarajar Port Limited	Sanction of Project
76	Upgrade of existing rail network at Kolkata Dock System	9	Syama Prasad Mukerjee Port Authority	Completed
77	Railway line between Marshalling Yard and Hare Island	98	V. O. Chidambaranar Port Authority	Completed

78	Railway line at west of western yard 1 -earlier common rail yard and providing paving block platform in between new track and western yard I - Chennai	14	Chennai Port Authority	Completed
79	Providing a direct connection between OEC and Western Sector jointing at NAD Curve from E.Co. Rly.	22	Visakhapatnam Port Authority	Completed
80	Connection of dead end line at North of RandD yard to Eastern Grid -Third line from E.Co.Rlys.	24	Visakhapatnam Port Authority	Completed
81	Upgradation of platform no. 2 and 3 in the Port Marshalling Yard at NMPT	5	New Mangalore Port Authority	Completed
82	Upgradation of Railway line 1 and 2 at NMPT	5	New Mangalore Port Authority	Completed
83	3rd line rail connectivity from Jasai to JNPT	126	Jawaharlal Nehru Port Authority	Under Implementation
84	JNPT Part I Development of DFC compliant Common Rail Yard JNPT Part II Development of DFC compliant Common Rail Yard, Modification to ROB	330	Jawaharlal Nehru Port Authority	Completed
85	Rail connectivity to berth No. 13-14- 15 and 16 from take-off point to west end of berth at Kandla Port.	127.29	Deendayal Port Authority	Completed
86	Rail Connectivity to 4th Terminal being developed by BMCTPL - PSA	50	Jawaharlal Nehru Port Authority	Completed
87	2nd Railway Line from Durgachak take off point to 'A' cabin at Durgachak at HDC	117	Haldia Dock Complex	Completed
88	Extension of line No. 11 to 15 to full length at RandD yard.	18	Visakhapatnam Port Authority	Completed
89	Last mile rail connectivity to Enayam Port in Kanyakumari district	300	V. O. Chidambaranar Port Authority	Under Development
90	Electrification of VPT railway lines 45.143 TKM	22.01	Visakhapatnam Port Authority	Under Implementation

91	Capital Dredging Phase-V for providing water depth of - 16 m CD for the proposed Ro-Ro cum GCB 2- LNG- MLT 2 and IOCL Captive Jetty berths at KPL	250	Kamarajar Port Limited	Sanction of Project
92	Northern Rail Link connecting north of Minjur to KPL	300	Kamarajar Port Limited	Under Development
93	Augmentation-doubling of southern rail connectivity to KPL	86.5	Kamarajar Port Limited - IPRCL	Under Implementation
94	Construction of Container Terminal Phase 2 at KPL	2000	Kamarajar Port Limited	Under Concept
95	Full rake wagon handling line with paving 30m wide at Mormugao	18	Mormugao Port Authority	Completed
96	Ro-Ro and General Cargo Berth-3 at KPL	350	Kamarajar Port Limited	Under Concept
97	Construction of Bunker berth at Chennai Port	44	Chennai Port Authority	Completed
98	JNPT Container Terminal 4 - Phase 1	4719	Jawaharlal Nehru Port Authority	Completed
99	Tamil Nadu Maritime cluster	500	Chennai Port Authority	Under Concept
100	Procurement of 15 RTYGCS at port owned Container Terminal - JNPT	160	Jawaharlal Nehru Port Authority	Completed
101	Smart Industrial Port City -SIPC at Kandla – Gandhidham – Adipur Complex	1147	Deendayal Port Authority	Under Implementation
102	Development of Smart Industrial Port City -SIPC Paradip	7600	Paradip Port Authority	Under Implementation
103	Restructuring of JNPT Yard for Optimal Yard Utilisation	115	Jawaharlal Nehru Port Authority	Completed
104	Construction of passenger boat landing jetty at Kanhoji Angre Island	7.68	Mumbai Port Authority	Completed
105	Development of Fishing Harbour at Kulai	197	New Mangalore Port Authority	Under Implementation
106	Deepening and widening of JNPT and Mumbai Channel Phase -II	1963	Jawaharlal Nehru Port Authority	Completed
107	Phase II of Multi Model Logistics Hub - Visakhapatnam Port	262	Visakhapatnam Port Authority	Completed
108	Development of SEZ at JNPT	565	Jawaharlal Nehru	Completed

			Port Authority	
109	Construction of widening the Korampallam Surplus course bridge and rail over bridge -RoB including widening of road from western boundary to TTPS	42	V. O. Chidambaranar Port Authority	Completed
110	Construction of ROB at Vallarpadam – Cochin	36	Cochin Port Authority	Completed
111	Providing Signalling and Telecommunication system for Railway Network at Mormugao Port	14	Mormugao Port Authority	Completed
112	Development of Dry port cum Multi- Modal Terminal at Jolarpet	200	Chennai Port Authority	Under Concept
113	Construction of Central Truck Parking Terminal at JNPT	149	Jawaharlal Nehru Port Authority	Completed
114	Setting up of LNG facilities at HDC	700	Haldia Dock Complex	Under Concept
115	Construction of Coastal Berth at JNPT	143	Jawaharlal Nehru Port Authority	Completed
116	Development of Additional Liquid Cargo Jetty - JNPT	199.64	Jawaharlal Nehru Port Authority	Under Implementation
117	JNPT Container Terminal 4 - Phase 2	3196	Jawaharlal Nehru Port Authority	Under Implementation
118	Various Signalling works at VPT	24	Visakhapatnam Port Authority	Completed
119	Development of Coastal road to the East of container Terminal II at Chennai Port	63	Chennai Port Authority	Completed
120	Development of Oil Jetty 7 at Old Kandla	42.38	Deendayal Port Authority	Under Implementation
121	Container Terminal at Berth Nos. 11 and 12 at Kandla Port on PPP Mode	160	Deendayal Port Authority	Completed
122	Development of lighthouse in Kanhoji Angre Island	47	Mumbai Port Authority	Under Implementation
123	Development of Liquid Terminal facilities consisting of SPM and 2 product jetties at OOT- Vadinar-Kandla Port on captive use basis	448	Deendayal Port Authority	Under Implementation
124	Deployment of two Mobile	93	Deendayal Port	Completed

	Harbour Cranes - Kandla Port		Authority	
125	Mechanisation of Fertilizer Handling Facility at Kandla	461	Deendayal Port Authority	Completed
126	Construction of 14th berth for Multipurpose Cargo at Kandla	138	Deendayal Port Authority	Completed
127	Construction of Major Fishing Harbour at Vasco Bay- MoPT	104	Mormugao Port Authority	Under Concept
128	River mouth dredging of Mahanadi at Paradip fishing harbour	21	Paradip Port Authority	Completed
129	Dry Port at Niphad in Nashik District	235	Jawaharlal Nehru Port Authority	Sanction of Project
130	Construction of 16th berth for Multipurpose Cargo at Kandla	150	Deendayal Port Authority	Completed
131	Dry Port at Ranjani Village in Sangli district	214	Jawaharlal Nehru Port Authority	Under Concept
132	Dry Port at Wardha	469.92	Jawaharlal Nehru Port Authority	Under Implementation
133	Dry Port at Jalna	327	Jawaharlal Nehru Port Authority	Under Implementation
134	Development of Oil Jetty 8 at Old Kandla	99	Deendayal Port Authority	Under Implementation
135	Construction of boundary wall and windscreen at Western side of Dock, Chiranjibpur and Durgachak areas	43.27	Haldia Dock Complex	DPR Preparation
136	Upgrading to accommodate full rake length at 7 Netaji Subash Dock and its yard under KDS-KoPT	16.5	Syama Prasad Mukerjee Port Authority	Completed
137	Multi-Skill Development Centre at JNPT	3	Jawaharlal Nehru Port Authority	Completed
138	Development of New EQ-10 berth - Visakhapatnam	55.38	Visakhapatnam Port Authority	Completed
139	Ship Repair Operations and Management of Ship Repair Facility at 7 Indira dock- MbPT	80	Mumbai Port Authority	Under Implementation
140	Dredging the dock basin for coastal cargo berth at VOCPT - Dredging in front of dedicated coastal berth	98	V. O. Chidambaranar Port Authority	Completed

141	Coastal Employment Unit -CEU at VoCPT	500	V. O. Chidambaranar Port Authority	Under Implementation
142	International Cruise Terminal at Ernakulam Wharf	25.72	Cochin Port Authority	Completed
143	Passenger Jetty at Vasco Bay-MoPT	21	Mormugao Port Authority	Sanction of Project
144	Dedicated goods line between Wadala and Kurla for freight movement from MbPT	176.81	Mumbai Port Authority	Under Development
145	Installation of 2 MHCs at Berth13- HDC	50	Haldia Dock Complex	Completed
146	Multipurpose Jetty at Chhoti Chowpatty -Marine Drive	45	Mumbai Port Authority	Sanction of Project
147	Development of Ecological and Cultural Park at Sewree	5	Mumbai Port Authority	Sanction of Project
148	Development of Hughe Dry Dock at MbPT	115	Mumbai Port Authority	Completed
149	Ropeway between Sewri fort and Elephanta Island in Mumbai harbour	700	Mumbai Port Authority	Sanction of Project
150	Installation of RFID facilities at HDC	16	Haldia Dock Complex	Completed
151	Deployment of 2 floating cranes near Sagar	65	Haldia Dock Complex	Completed
152	Road cum Flyover serving as 2nd exit to the Paradip port	93	Paradip Port Authority	Under Implementation
153	Connectivity of IOHP and MCHP at PPT	66.47	Paradip Port Authority	Completed
154	Deepening and optimization of Inner Harbour facilities including Western dock Captive berth (1 nos)	3004.63	Paradip Port Authority	Under Implementation
155	Reconstruction of Q1 Berth at Mattancherry Wharf	5.02	Cochin Port Authority	Completed
156	Refurbishment of South Tanker Berth	29.22	Cochin Port Authority	Completed
157	Truck parking at Liquid Storage Tank Farm area	10.27	Deendayal Port Authority	Completed
158	Construction of Oil Jetty 9 at Kandla	123.4	Deendayal Port Authority	Sanction of Project

159	Mini Bulk Carrier Facility on upstream of 3rd Oil Jetty at HDC -Floating Cargo Handling Jetty	73	Haldia Dock Complex	Completed
160	Ferry service from Baina to Panaji	5	Mormugao Port Authority	Completed
161	Container scanners - JNPT	75	Jawaharlal Nehru Port Authority	Completed
162	Extended port gate at Balagarh	320	Kolkata Port Authority	Sanction of Project
163	Procurement of 1 no. Rail Mounted Quay Crane -RMQC at HDC	61.31	Haldia Dock Complex	Under Implementation
164	Construction of 1.5 Lakh sq.meters of Hardstand inside HDC	51.02	Haldia Dock Complex	Completed
165	Container Scanner KoPT and HDC	40	Kolkata Port Authority	Completed
166	Container scanners - PPT	40	Paradip Port Authority	Completed
167	Mobile rubber tyred electrically operated hopper	38.08	V. O. Chidambaranar Port Authority	Completed
168	Strengthening of existing EQ-7 berth to handle vessels of 14.5 m draft	16.5	Visakhapatnam Port Authority	Completed
169	Cruise-cum-coastal cargo terminal	77	Visakhapatnam Port Authority	Under Implementation
170	Floating Restaurant at Girgaum Chowpatty	10	Mumbai Port Authority	Completed
171	2 Floating Restaurants at Gateway of India	40	Mumbai Port Authority	Completed
172	Development of domestic cruise terminal	15	Mumbai Port Authority	Completed
173	Tank Farm at JD5- MbPT	700	Mumbai Port Authority	Under Implementation
174	Replacement of Fendering System at lead in Jetty - HDC	28	Haldia Dock Complex	Completed
175	Improvement of road connectivity to facilitate trade and port users at KoPT, Phase-2	88	Syama Prasad Mookerjee Port Authority	Completed
176	Removal of 2 No.s Mooring of Spiral in the area of Cruise Berth	13.87	Mormugao Port Authority	Completed

	- Mormugao			
177	Development of hardstand storage area of 1.13 Lakh sqm behind Berth No. 13 at HDC	44	Haldia Dock Complex	Completed
178	Setting up of Outer Terminal-2 for handling of liquid bulk cargo at Haldia Dock Complex	81.24	Haldia Dock Complex	Completed
179	Setting up of Liquid Cargo Handling facilities at Shalukkhali- Haldia Dock-II	172.52	Haldia Dock Complex	Under Implementation
180	Khidderpore Dry Docks Rejuvenation	35	Kolkata Port Authority	Under Implementation
181	Mechanisation of Berth3 at HDC	298.26	Haldia Dock Complex	Under Implementation
182	Construction of berth18 in western dock Arm at NMPT	94	New Mangalore Port Authority	Completed
183	Implementation of RFID - NMPT	6.17	New Mangalore Port Authority	Completed
184	Mechanisation of Berth 18 - now 16 for handling bulk cargo at NMPT	469	New Mangalore Port Authority	Completed
185	Installation- Commissioning and maintenance of RFID based gate access system for vehicle entry-exit - Cochin	1	Cochin Port Authority	Completed
186	Development of 30 acres of stack yard and ancillary roads for parking of Ro-Ro cargoes and cars - NMPT	22	New Mangalore Port Authority	Completed
187	Implementation of Mobile X-Ray Container Scanner at NMPT	40	New Mangalore Port Authority	Completed
188	Mechanization of Berth 14 and Backup area for handling Container Terminal at NMPT	258	New Mangalore Port Authority	Completed
189	Providing Railway Double line track (Twin Single Line) between Holding Yard -I and Kamarajar Port, Alteration of existing Electronic Interlocking	7.23	Kamarajar Port Limited	Completed
190	Construction of Port Internal Roads, Parking Bay, Rest Shelter,	51.56	Kamarajar Port Limited	Completed

	etc.			
191	Reconstruction of Bay Number 4 and 5 of the CPY or reconstruction of damaged portions of Bay Number 1 CPY - excluding rail line portion and other allied works	12.44	Kolkata Port Authority	Completed
192	Sprinkling system inside cargo jetty area for coal dust suppression in coal yard	20.8	Deendayal Port Authority	Completed
193	Retrofitting of existing cargo berth no. 1 to 5	34.19	Deendayal Port Authority	Completed
194	Mechanized fertilizer handling facility at Berth No. 14, Deendayal Port	300.28	Deendayal Port Authority	Under Implementation
195	Construction of Dr. Babsheb Ambedkar Convention Centre, Gandhidham	33.08	Deendayal Port Authority	Completed
196	Development of oil jetty to handle liquid cargo and ship bunkering terminal at old kandla	233.5	Deendayal Port Authority	Under Implementation
197	Construction of flyover near North Gate Complex on container road in JN Ports	127	Jawaharlal Nehru Port Authority	Completed
198	Development of basic amenities in land to be allotted under 12.5% scheme of Government of Maharashtra to JNP PAPs (development scheme for PAPs)	358	Jawaharlal Nehru Port Authority	Under Implementation
199	Construction of Berth no. 17	225	New Mangalore Port Authority	Under Implementation
200	Development of international and domestic cruise terminal and allied facilities at Mormugao Ports	74.11	Mormugao Port Authority	Under Implementation
201	Design, build 5 MLD capacity desalination plant at VOC Ports Authority, Tuticorin, and operation and maintenance for 20 years	275	V. O. Chidambaranar Port Authority	Sanction of Project
202	Reconstruction of South Coal	19.19	Cochin Port	Completed

	Berth at Cochin Port for handling chemicals		Authority	
203	Management, Operation and Maintenance of Kanhoji Angre Island as Tourist Destination on PPP basis	50	Mumbai Port Authority	Under Implementation
204	Construction of Third Chemical Berth at Pirpau, MbPT	161	Mumbai Port Authority	Under Implementation
205	Development, operation & Maintenance of container terminal on Berth No 15 & 16 on PPP mode	2000	Deendayal Port Authority	Under Concept
206	Mechanisation of EQ-7 Berth / Multiple Cargoes	200	Visakhapatnam Port Authority	Under Implementation
207	Oil Jetty No.10	123.12	Deendayal Port Authority	Sanction of Project
208	Oil Jetty No.11	361.7	Deendayal Port Authority	Sanction of Project
209	Rejuvenation of Khidderpore Docks (KPD-I WEST) through PPP mode on Build, Equip, Operate and Transfe	181.81	Kolkata Port Authority	Under Implementation
210	Replacement and revamping of pipeline projects in oil jetty area, Kandla	170	Deendayal Port Authority	Under Implementation
211	Construction of covered storage sheds	160	Visakhapatnam Port Authority	DPR Preparation
212	Floating Jetty at River Mandovi & Chapora river (for IWAI). (Four Nos Floating Jetty on EPC basis	9.6	Mormugao Port Authority	Completed
213	Development of 9th berth as a container terminal on BOT basis	435	V. O. Chidambaranar Port Authority	Under Implementation
214	Mechanization of NCB III for dry bulk cargoes on BOT basis	420	V. O. Chidambaranar Port Authority	Under Concept
215	Mechanisation of SQB berth-Paradip	75	Paradip Port Authority	Under Concept
216	Container Terminal at JNPT	661	Jawaharlal Nehru Port Authority	Under Implementation

217	Construction of Jetty and allied facilities for Indian Coast Guard at Cochin Port	120	Cochin Port Authority	Completed
218	Floating crane facility at Diamond Harbor	66	Kolkata Port Authority	Sanction of Project
219	FSRU for LNG handling at NMPT	710	New Mangalore Port Authority	DPR Preparation
220	Hooghly Ship Building	150	Kolkata Port Authority	DPR Preparation
221	LNG terminal at VOC Port.	1000	V. O. Chidambaranar Port Authority	Under Concept
222	DEVELOPMENT OF A CONTAINER TERMINAL AT TUNA-TEKRA, KANDLA ON BOT BASIS	4243.64	Deendayal Port Authority	Under Implementation
223	Development of berthing facilities off tekra near Tuna, Kandla Phase-II	1100	Deendayal Port Authority	Under Concept
224	DEVELOPMENT OF MULTIPURPOSE CARGO OTHER THAN CONTAINER & LIQUID BERTH OFF TUNA TEKRA OUTSIDE KANDLA CREEK AT KANDLA ON BOT BASIS	1552.57	Deendayal Port Authority	Sanction of Project
225	Upgradation of the facilities at Berth No.9 by providing Marine unloading arms of higher capacity, Strengthening of the Berth, Deepening of the draft to 14 mtrs and Improving the pipeline connectivity to enhance the output and capacity utilization	100	New Mangalore Port Authority	DPR Preparation
226	Refurbishing of the Berth No.10 for dedicated usage of MRPL	50	New Mangalore Port Authority	DPR Preparation
227	Refurbishing of the Berth NO.11 for dedicated usage of MRPL.	50	New Mangalore Port Authority	DPR Preparation
228	Strengthening and Mechanization of Berth 7, 8 NSD on DBFOT basis	340	Kolkata Port Authority	Under Concept
229	Mechanization of Berths 4 & 5	270	Kolkata Port	Under Concept

	NSD on DBFOT basis		Authority	
230	Construction and Mechanization of Container berths at KDS Outer Terminal	182	Kolkata Port Authority	Under Concept
231	Mechanization of Berth No. 10	350	Haldia Dock Complex	Under Concept
232	Mechanization of Berth No. 5	325	Haldia Dock Complex	Under Concept
233	Operation and Maintenance of International Cruise Terminal(MICT) on DBFOT Basis	192	Mumbai Port Authority	Sanction of Project
234	Redevelopment of berth 9 & barge berths at Mormugao Port	842	Mormugao Port Authority	Sanction of Project
235	Operation and maintenance of Berth nos. 10 & 11 on PPP basis.	200	Mormugao Port Authority	Sanction of Project
236	Conversion of 1, 2, 3, & 4 berths	2144	V. O. Chidambaranar Port Authority	DPR Preparation
237	Mechanisation of coal jetty by TANGEDCO	325	V. O. Chidambaranar Port Authority	Under Implementation
238	Mechanization of CQ-1 & 2 (2 Berths)	1103	Paradip Port Authority	Under Concept
239	Mahanadi Riverine Port (Phase-I)	2562	Paradip Port Authority	DPR Preparation
240	NCB Berth	100	Cochin Port Authority	DPR Preparation
241	Mechanisation of WQ-7 & WQ-8 berths (Bulk cargo) - PPP	288.47	Visakhapatnam Port Authority	Under Implementation
242	Development of Cruise Terminal	103	Visakhapatnam Port Authority	Under Implementation
243	Award of WQ6 on PPP	250	Visakhapatnam Port Authority	Under Implementation
244	Development of EQ6 berth and mechanisation on PPP	250	Visakhapatnam Port Authority	Under Concept
245	Upgrading Berth WQ 2-5 to handle fully loaded Panamax ships	600	Visakhapatnam Port Authority	Under Concept
246	Deepening of NCB III and IV	900	V. O. Chidambaranar Port Authority	Sanction of Project

247	Malabar Cement Terminal	160	Cochin Port Authority	Under Implementation
248	Upgradation of Inner Harbour -	330	V. O. Chidambaranar Port Authority	DPR Preparation
249	Deep Draft Bulk Berth			
250	Port at Kanyakumari	27570	V. O. Chidambaranar Port Authority	Under Concept
251	Upgradation and modification of track in Kamarajar Port Ltd.	27.38	Kamarajar Port Limited	Under Implementation
252	S & T Maintenance work in KPL for three years	7.96 Cr	Kamarajar Port Limited	Under Implementation
253	A Road cum Flyover crossing the BOT Rail Tracks to have unobstructed access to the MCHP Areas	38.18	Paradip Port Authority	Under Implementation
254	Upgradation of rail network inside Cargo jetty – Civil and P. way Work	45.51	Deendayal Port Authority	Completed
255	ONGC Bridge Extension work inside JNPT holding yard	12.5	Jawaharlal Nehru Port Authority	Completed
256	Inspection, Measurement, correcting parameters and recouping deficient components of rail tracks at KDS	14.04	Syama Prasad Mukerjee Port Authority	Under Implementation
257	Operationalisation of coastal berth at JNPT	125	Jawaharlal Nehru Port Authority	Under Implementation
258	Sea Plane Lakshwadeep-Adjoining islands	200	Kolkata Port Authority	DPR Preparation
259	Sea Plane Surat Hub: Surat-Dwarka	200	Kolkata Port Authority	DPR Preparation
260	Sea Plane Surat- Kandla	200	Kolkata Port Authority	DPR Preparation
261	Sea Plane Surat- Mandvi	200	Kolkata Port Authority	DPR Preparation
262	Watertaxi : Domestic cruise terminal- Vashi Sagar- Airoli Hovercraft- Thane Jetty Hovercraft	400	Mumbai Port Authority	DPR Preparation
263	Watertaxi :Fort Gateway Hovercraft ramp-Domestic cruise	400	Mumbai Port Authority	DPR Preparation

	terminatl(DCT)-Belapur jetty			
264	Watertaxi: Belapur jetty-Kalamboli Panvel	400	Mumbai Port Authority	DPR Preparation
265	Improvement to Immigration Office and Deeping of Cruise Berth for facilitating Biggersize vesses.	13.16	Mormugao Port Authority	Completed
266	RoRo Terminal at SPM	100	Kolkata Port Authority	Under Concept
267	RoRo Terminal at VPT	100	Visakhapatnam Port Authority	DPR Preparation
268	Port Hospital at Mumbai Port	693	Mumbai Port Authority	Under Implementation
269	Fisheries Harbour at Cochin port	101.02	Cochin Port Authority	Under Implementation
270	Fish Jetty at Mallet Bunder, Mazgaon.	96.6	Mumbai Port Authority	Sanction of Project
271	Port Hospital at Kolkata port	350	Kolkata Port Authority	Sanction of Project
272	2nd Full rake handling line RD 8A with 30m paving	7.83	Mormugao Port Authority	Completed
273	Construction of an Up-Ramp at MPT Railway yard Baina.	26.13	Mormugao Port Authority	Under Implementation
274	Berthing facility for ROPAX/RO-RO vessel at Shallow Water Berth in JN Port	46.34	Jawaharlal Nehru Port Authority	Completed
275	Construction and Maintenance of Ro-Pax Facility at Hazira, Gujarat	69.06	Deendayal Port Authority	Under Implementation
276	CONSTRUCTION OF RORO / ROPAX FACILITY AT MULDWARKA, DISTRICT GIR SOMNATH, GUJARAT	144.3	Deendayal Port Authority	Under Implementation
277	Construction and Maintenance of Ro-Pax Facility at Pipavav, Gujarat	170.06	Deendayal Port Authority	Sanction of Project
278	Modernisation of Chennai Fishing Harbour Project	99.85	Chennai Port Authority	Under Implementation
279	Modernisation of Visakhapatnam Fishing Harbour	151.81	Visakhapatnam Port Authority	Under Implementation

280	Construction of 12m wide concrete road connecting berth 5 6 7 8 & 9 to new entry / exit road	11.52	Mormugao Port Authority	Under Implementation
281	Upgradation and modernization of Fishing Harbour at Paradip in Odisha	108.9	Paradip Port Authority	Under Implementation
282	Total reconstruction of Berth No 6 at NSD	17.94	Kolkata Port Authority	Under Implementation
283	Renovation of Bascule Bridge at Kolkata Dock System of Syama Prasad Mookerjee Port, Kolkata	40.32	Syama Prasad Mookerjee Port Authority	Under Development
284	Construction and upgradation of level crossing at different areas of KDS	4.47	Syama Prasad Mukerjee Port Authority	Under Implementation
285	Development of drainage network at Dock Zone, Haldia Dock Complex (Phase-II, Eastern side of dock basin)	67.46	Haldia Dock Complex	DPR Preparation
286	Development of paver block topped hardstand inside dock zone HDC, SMPK	25	Haldia Dock Complex	DPR Preparation
287	Setting up of two covered storage sheds inside dock zone	41.32	Haldia Dock Complex	DPR Preparation
288	Modernization of Fire fighting system at dock zone, HDC, SMPK	36.5	Haldia Dock Complex	DPR Preparation
289	Development of Outer Container Terminal at HDC, SMPK in PPP mode	980	Haldia Dock Complex	DPR Preparation
290	Modification of Coal Handling Plant for handling Iron Ore fines & Iron Pellets	50	Haldia Dock Complex	DPR Preparation
291	SCADA and PLC automation system at Marine Oil Terminal at Mumbai Port	22.58	Mumbai Port Authority	Sanction of Project
292	Development of RORO facilities for handling propylene and other cargo at Cochin Port	10.56	Cochin Port Authority	Under Implementation
293	Development of Onshore Power Supply at COPT	22.34	Cochin Port Authority	Sanction of Project
294	Upgradation of Dredging at Ghogha Ghannel, Turning Giracle	45.81	Deendayal Port Authority	Under Implementation

	and Approach Channel to achieve depth of (-) 7 Metre			
295	Development of River Cruise terminal and river tourism facility along with riverfront beautification works at KDS, SMP, Kolkata	75.82	Kolkata Port Authority	Under Implementation
296	Design, Engineering & Construction for Rehabilitation of No.7, NSD Old Berth including Development of Backyard at N.S. Dock of KDS - SMP, Kolkata	80.74	Kolkata Port Authority	Under Implementation
297	Supply, fabricate, transport, handle and erect in position the floating Pontoon similar to the existing Pontoon at Ghogha	33.27	Deendayal Port Authority	Sanction of Project
298	Development of Dry Dock at Timber Pond-Boat basin at Chennai port or Development of Marina	315	Chennai Port Authority	Under Concept

ANNEXURE - IX

Comparative performance of berths operated on PPP basis and berths operated by the Port Authorities on various parameters.

PORT	No. of PPP Berths	Traffic handled by PPP Berths (MTPA)	Percentage of Total Traffic handled by PPP Berths (%)	No. of Port Owned berths	Traffic handled by Port's Own Berths (MTPA)	Percentage of Total Traffic handled by Port's own Berths (%)
SMP, KOLKATA	0	0.000	0.00	35	15.298	100.00
HALDIA	2	5.240	12.22	15	37.637	87.78
PARADIP	13	59.881	51.56	9	56.252	48.44
VISAKHAPATNAM	8	38.875	56.32	18	30.155	43.68
KAMARAJAR	7	36.970	95.43	1	1.772	4.57
CHENNAI	7	30.925	63.68	19	17.639	36.32
V.O. CHIDAMBARANAR	6	22.916	67.16	9	11.203	32.84
COCHIN	5	26.593	76.97	15	7.957	23.03
NEW MANGALORE	3	32.310	82.22	14	6.986	17.78
MORMUGAO	3	10.902	59.07	6	7.554	40.93
MUMBAI	2	2.730	4.56	31	57.161	95.44
JNPA	10	68.899	90.66	6	7.097	9.34
DEENDAYAL	14	70.193	55.23	20	56.907	44.77
TOTAL:	80	406.434	56.45	198	313.618	43.55

Source: IPA Major Port Profile 2021-22

ANNEXURE – X

(All values in USD)

Charges	Mainline Vessel GRT 95366 / TEU 9365 / 24HR PORT STAY		Feeder Vessel GRT 25535 / TEU 2442 / 24HR PORT STAY		Coastal Vessel GRT 21339 / TEU 1725 / 24HR PORT STAY	
	Cochin*	Colombo	Cochin*	Colombo	Cochin*	Colombo
Lighthouse Dues (LHD)*	12,135	3,230	3,164	884	0	714

Due to the above, Port Call Costs are higher in India than in Foreign Ports. Port Call costs work out to USD 108,437 and USD 64,592 respectively at the New and Old Terminals of Nhava Sheva as compared to USD 12,043 at Port Klang, USD 16,158 at Jebel Ali, USD 17,235 at Singapore and USD 19,308 at Colombo.

ANNEXURE XI

Present Status of the targets set by Establishing Green and Sustainable Ports by the Ministry

Environment Performance Indicators (EPIs) Status

Sr. No.	EPIs	Target by 2030	Target by 2047	Port Wise Present Status			
				Deendayal	JN Port	Mumbai	Mormugao
1	% share of Renewable energy consumption at ports (self-generated + procurement from grid)	>60%	>90%	100%	28%	30%- self generated 60%- procurement from grid.	6%
2	% Port equipment/vehicles electrified	>50%	>90%	33%. of Port equipment are electrified.	43% of Port equipment are electrical	Baseline Study completed	Nil
3	% area under green belt	>20%	>33%	Plantation in an area of 189.52 acres.	31.79%	85,000 bamboo plantation is targeted this monsoon 2023.	5%
4	% reduction in CO2 emission/ton of cargo (Baseline Year 2023)	>30%	>70%	The baseline estimation study in progress	-3.91% *April to May-23	GHG baseline emission study completed.	Baseline study is in progress
5	%GHG emission reduction in all coastal/ EXIM vessels	>10%	>50%	Feasibility study will be explored.	Feasibility Study for Shore Power Supply (SPS) is in progress	-	Baseline study is in progress
6	% reduction in fresh-	>20%	-	Baseline	1.1%	Under	

	water consumption / ton of cargo (Baseline Year 2023)			Study under progress		planning stage.	5%
7	% recycle and reuse of consumed water	>100%	-	Water is treated in the township area and used in gardening	42.37%	0.09 MLD capacity is planned before Dec 2023.	20%
8	% reduction in energy consumption / ton of cargo (Baseline Year 2023)	>20%	-	3000 Nos. of Convention al HPSV replacement done. replacement in other areas in progress	-0.51% *April to May-23	Baseline study completed.	Nil
9	One no. of LNG bunkering station	By year 2030	-	Under exploration of the Possibility	-	Feasibility stage	Nil
10	Green hydrogen / Ammonia bunkers and refueling facilities	By year 2035	-	Under MoU signing stage	-	Feasibility stage	Nil
11	Adequate number of EV charging stations	By year 2025	-	Under MoU signing stage	One Charging Station	In Process	Nil

Environment Performance Indicators(EPIs) Status

Sr. No.	EPIs	Target by 2030	Target by 2047	Port Wise Present Status			
				New Mangalore	Cochin	VOC Port	Chennai
1	% share of Renewable energy consumption at ports	>60%	>90%	100%	16.06%	4.6%	4 %

	(self-generated + procurement from grid)						
2	% Port equipment/vehicles electrified	>50%	>90%	18%	8.00%	9%	2 Nos. of RTGCs with hybrid models are electrically operated cranes.
3	% area under green belt	>20%	>33%	33%	8.54%	13.34%	10%
4	% reduction in CO2 emission/ton of cargo (Baseline Year 2023)	>30%	>70%	2.8%	Nil	Under planning	18.66%
5	%GHG emission reduction in all coastal/ EXIM vessels	>10%	>50%	Exploring Possibility	Nil	Under planning	NIL
6	% reduction in fresh-water consumption / ton of cargo (Baseline Year 2023)	>20%	-	80%	Nil	Under planning	0%
7	% recycle and reuse of consumed water	>100%	-	90%	Nil	Under planning	12 %
8	% reduction in energy consumption / ton of cargo (Baseline Year 2023)	>20%	-	20%	Nil	0.41 unit /ton for May 2023	5%
9	One no. of LNG bunkering station	By year 2030	-	NIL	Nil	Under process	0
10	Green hydrogen / Ammonia bunkers and refueling facilities	By year 2035		NIL	Nil	Process of selecting Consultant for pilot project '10TPD Green Hydrogen	0

						Plant' is initiated.	
11	Adequate number of EV charging stations	By year 2025	-	02	NIL	Work Order for Supply of 5 Nos. of Charging Stations has been issued	0

Environment Performance Indicators(EPIs) Status

Sr. No.	EPIs	Target by 2030	Target by 2047	Port Wise Present Status			
				Kamarajar	Visakhapatnam	Paradip	Syama Prasad Mookerjee
1	% share of Renewable energy consumption at ports (self-generated + procurement from grid)	>60%	>90%	50%	>60%	0.60%	160 KW RE Installation
2	% Port equipment/vehicles electrified	>50%	>90%	5%	>10%	70%	01 No. crane electrified
3	% area under green belt	>20%	>33%	22.82%	>20%	11%	30%
4	% reduction in CO2 emission/ton of cargo (Baseline Year 2023)	>30%	>70%	Internal study is in progress	>5%	Under study	Under study
5	%GHG emission reduction in all coastal/ EXIM vessels	>10%	>50%	Installation of shore Power supply facility is available for	>2%	Under study	Under study

				harbor crafts and installation is in progress for coastal vessels.			
6	% reduction in fresh-water consumption / ton of cargo (Baseline Year 2023)	>20%	-	Internal study is in progress	>25%	Not applicable - 100% recycled water is used for water sprinkling	Under study
7	% recycle and reuse of consumed water	>100%	-	Port has installed 83KLD STPs and treated STP water is reused for green belt development	100%	100%	One STP of 150 KLD capacity
8	% reduction in energy consumption / ton of cargo (Baseline Year 2023)	>20%	-	Internal study is in progress	>5%	32%	Under study
9	One no. of LNG bunkering station	By year 2030	-	Internal study is in progress	NIL	0	Planning Stage
10	Green hydrogen / Ammonia bunkers and refueling facilities	By year 2035	-	Internal study is in progress	NIL	0	Planning Stage
11	Adequate number of EV charging stations	By year 2025	-	One no. of EV station has installed	NIL	0	Planning Stage

ANNEXURE XII

Maritime and Port Authority (MPA) of Singapore green initiative comprising four programmes:

- Green Ship Programme
- Green Port Programme
- Green Energy and Technology Programme
- Green Awareness Programme

These are voluntary programmes designed to recognise and provide incentives to companies that adopt clean and green shipping practices over and above the minimum required by International Maritime Organization (IMO) Conventions.

Under the Green Ship Programme and Green Port Programme, the MPA provides concessions in registration fees, annual tonnage taxes and port dues for ships that exceed the IMO's MARPOL EEDI requirements by 10% or more and adopt engine capable of using low carbon or zero carbon fuels.

The MARITIME SINGAPORE DECARBONISATION BLUEPRINT comprises voluntary programmes to recognize and provide incentives to companies that adopt clean and green shipping practices over and above the minimum required by IMO obligations.

(Source: Website of Maritime & Port Authority of Singapore)

The Port of Rotterdam Authority's CO2 reduction targets are the following

Emission category (GHG-protocol)	Description	% of CO2 reduction 2019-2030
Scope 1 + 2	Vessels and vehicles, procurement of electricity and district heat	-/- 90%
Scope 3	Air travel, commuting	-/- 60%
Scope 3	Contracts with contractors (fuels), real estate	-/- 45%
Scope 3	Shipping	-/- 20%

(Source: Website of Rotterdam Port Authority)

ANNEXURE XIII

The port charges for a Cruise Ship is \$ 0.085 per GRT ('Fixed Rate') and \$ 6 per passenger ("Head Tax") for the first 12 hours of stay. Ports will not charge any other rate like berth hire, port dues, pilotage, passenger fee, etc.

The period exceeding 12 hours stay, the fixed charges on Cruise Ships will be equal to the Berth Hire Charges payable as per SOR

Based on Cruise Tariff recovered at some of the Cruise Ports across the globe through which Cruise Ships normally call Indian Cruise Ports namely Muscat, Doha, Singapore, Dubai, and Abu Dhabi, Cruise Tariff recovered in India are lowest among the above Cruise Ports.

MCA 2021, 2018, 2008 -Key differences

	2018 MCA	2021 MCA	2008 MCA
A	Concession Period- Article 2.2 in MCA 2021		
	30 years. No provision for extension	30 years for single phase and 45 years for multi-phase investments On the 25th year, the concessionaire can request for extension in CP. Concessionaire to participate in the bidding. Can match the highest bid if his bid is within 10% of the highest bid. Cannot participate if was in material default of the provisions in the agreement and cumulative damages imposed exceeds 20%.	30 years. No provision for extension
B	Conditions Precedent – Article 3.1 in MCA 2021		
	180 days for fulfilling the requirements under the Condition Precedent.	The revised MCA 2021 document provides a period of 180 days for fulfilling the requirements under the Condition Precedent. Concessioning Authority can increase this period upto 270 days depending on the nature of Conditions Precedent and the project requirements, considering rational demand from bidders	90 days for fulfilling the requirements under the Condition Precedent.. Can be extended depending on the nature of the project
C	Deemed Performance Security- Article 4.2 in MCA 2021		
	No provision	After 6 months from COD, performance security to be replaced with deemed performance security. Will constitute the first and exclusive charge on an equivalent balance in the Escrow Account and on all amounts due and payable by the Concessionaire to the Concessioning Authority. Concessioning Authority shall be entitled to enforce the Deemed Performance Security through a withdrawal from the Escrow Account or by making a deduction from the amounts due and payable to it.	No provision
D	Tariff- Article 8 in MCA 2021		
	Upfront tariff	Concessionaire shall fix the Tariff based on	Upfront

	fixed by TAMP	market conditions and on such other conditions, if any, as may be notified and made applicable by a competent authority, under the provisions of the MPA Act. MPA Act, Section 27 proviso clause states that 'Provided that, in case of Public Private Partnership projects after the commencement of this Act, concessionaire shall fix the tariff based on market conditions and on such other conditions as may be notified: Provided further that the revenue share and other conditions would be as per the provisions of the specific concession agreement between the Board and the Public Private Partnership concessionaire appointed under the Public Private Partnership project'	tariff fixed by TAMP
E	License Fee- Article 9.1 in MCA 2021		
	License fee shall be on annual basis based on Port's scale of rates.	The Concessionaire shall, as consideration for the use, in its capacity as a bare licensee of the Project Site and the equipment comprised in the Port's Assets, made available in accordance with Article 2.4, pay to the Concessioneing Authority Re 1 (the "License Fee").	License fee shall be on annual basis based on Port's scale of rates.
F	Additional Utilities and Services- Article 9.3 in MCA 2021		
	The charges in case of additional land will be 2.00 times of scale of rates as applicable at the time of giving additional land.	The charges in case of additional land will be 1.20 times of scale of rates as applicable at the time of giving additional land.	The charges in case of additional land will be 2.00 times of scale of rates as applicable at the time of giving additional land.
G	Change in cargo and business plan due to change in law- Article 13.2.1 in MCA 2021		
	No provision	If as a result of Change in Law, the Concessionaire is unable to continue to handle the Cargo for which the Concession was originally awarded, the Concessioneing Authority and the Concessionaire shall meet and the Committee would assess the aggregate	No provision

		financial effect on the Concessionaire and propose remedies as per the business revival plan including but not limited to an appropriate extension of the Concession Period and/or the new cargo that the Concessionaire may handle. Any such extension, if applicable, in the Concession Period shall be limited to a maximum of [10 (ten)] years.	
H	Change in cargo and business plan due to Unforeseen events- Article 13.2.2 in MCA 2021		
	No provision	<p>Committee is empowered to undertake or cause to undertake a business revival plan to assess and recommend:</p> <ul style="list-style-type: none"> • The business revival plan with the recommendation of handling of new cargo; • Provide recommendation on the viability of the business revival plan after a holistic consideration of all possible risks and rewards to all the stakeholders including but not limited to the Concessioning Authority, Concessionaire, Senior Lenders and Users including but not limited to impact on/of competition at the Port. in case the business revival plan involves infusion of additional debt, the lenders may have to endorse the business revival plan and provide the same in writing to the Committee; If applicable and accepted by the Concessioning Authority, the new Royalty or the Minimum Guaranteed Traffic from the Concessionaire to the Concessioning Authority; • Any other remedies what-so-ever, as mutually agreed by both Parties. 	No provision
I	Compensation on termination due to Force Majeure Event- Article 17 in MCA 2021		
	<p>Non Political Event - compensation to Concessionaire - lower of the Book Value or the Debt Due LESS any amount due to</p>	<p>i. Non Political Event- Termination Payment to Concessionaire - 90% of the Debt Due LESS any amount due to the Concessioning Authority by the Concessionaire LESS all insurance claims received or admitted.</p> <p>ii. due to an Other Event - Termination Payment to Concessionaire</p>	<p>Non-Political Event- compensation payable to the Concessionaire shall be the lower of the Book Value or the Debt</p>

<p>the Concessioneing Authority LESS all insurance claims received or admitted.</p> <p>due to an Other Event - Termination Payment to Concessionaire – higher of the Book Value or the Debt Due LESS any amount due to the Concessioneing Authority by the Concessionaire under this Agreement LESS all insurance claims received or admitted. Provided, the Book Value or the Debt Due, as the case may be shall not exceed the Total Project Cost.</p> <p>Due to a Political Event- compensation payable to the Concessionaire shall be the same as that stipulated for termination due to a</p>	<p>shall be Aggregate of:</p> <p>a) Debt Due less Insurance Cover; provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% of such unpaid claims shall be included in the computation of Debt Due;</p> <p>b) 110% of the Adjusted Equity; and</p> <p>c) an amount equivalent to the Additional Termination Payment less Insurance Cover; provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% of such unpaid claims shall be included in computation of the amount payable hereunder.</p> <p>iii. due to a Political Event- Termination Payment to the Concessionaire shall be the same as that stipulated for termination due to a Concessioneing Authority Event of Default. Provided, no Termination Payment shall be payable to the Concessionaire if the Concessionaire fails to maintain Insurance Cover as contemplated under Article 12 of this Agreement.</p>	<p>Due LESS any amount due to the Concessio ning Authority by the Concessionair e under this Agreement LESS all insurance claims received or admitted</p> <p>Other Event - compensation payable to the Concessionair e shall be the higher of the Book Value or the Debt Due LESS any amount due to the Concessionein g Authority by the Concessionair e under this Agreement LESS all insurance claims received or admitted.</p> <p>Provided, the</p>
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	Concessioneing Authority Event of Default		<p>Book Value or the Debt Due, as the case may be shall not exceed the Actual Project Cost.</p> <p>Other events - the compensation payable by the Concessioneing Authority shall be equal to the aggregate of (i) Debt Due plus (ii) 150% (one hundred and fifty percent) Equity.</p>
J	Termination due to Concessionaire Event of Default- Article 17.1 (b) in MCA 2021		
	<p>After COD, compensation payable to the Concessionaire shall be the lowest of:</p> <p>i)the Book Value;</p> <p>ii) 90% (ninety percent) of Debt Due;</p> <p>(iii) the Total Project Cost;</p> <p>Provided, no compensation</p>	<p>after the COD - Termination Payment payable to the Concessionaire shall be an amount equal to:</p> <p>a) 90% of the Debt Due less Insurance Cover; and</p> <p>b) 70% of the amount representing the Additional Termination Payment:</p> <p>(i) Provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% of such unpaid claims shall be included in the computation of Debt Due</p> <p>(ii)</p> <p>Default during the Construction Period - no</p>	<p>If the termination is after the Date of Commercial Operation, due to a Concessionaire Event of Default, the compensation payable by the</p>

	<p>shall be payable to the Concessionaire if the Concessionaire fails to maintain Insurance Cover</p> <p>Default during construction period – no payment</p>	<p>Termination Payment payable for and in respect of expenditure comprising the first 30% of the Total Project Cost and in the event of expenditure exceeding such 30% and forming part of Debt Due, the provisions of Clause 42.3.1 shall, to the extent applicable to Debt Due, apply in respect of the expenditure exceeding such 30%. Provided, no Termination Payment shall be payable to the Concessionaire if the Concessionaire fails to maintain Insurance Cover as contemplated under Article 12 of this Agreement.</p>	<p>Concessioning Authority to the Concessionaire shall be the lowest of:</p> <p>(i) the Book Value;</p> <p>(ii) 90% (ninety percent) of Debt Due;</p> <p>(iii) the Actual Project Cost; Provided, no compensation shall be payable to the Concessionaire if the Concessionaire fails to maintain Insurance Cover as contemplated under Article 12 of this Agreement.</p>
K	Termination due to Concessioning Authority Event of Default- Article 17.1 (c) in MCA 2021		
	<p>Compensation payable by the Concessioning Authority shall be equal to the aggregate of (i)</p>	<p>The Termination Payment payable by the Concessioning Authority shall be equal to the aggregate of:</p> <p>(i) Debt Due less Insurance Cover;</p> <p>(ii) 150% of the Adjusted Equity; and</p> <p>(iii) 115% of the amount representing the</p>	<p>If the termination is due to a Concessioning Authority</p>

	Debt Due plus (ii) 150% (one hundred and fifty percent) Equity.	Additional Termination Payment	Event of Default, the compensation payable by the Concessional Authority shall be equal to the aggregate of (i) Debt Due plus (ii) 150% (one hundred and fifty percent) Equity
L	Additional Terminal Payment- Article 17.8 in MCA 2021		
	No provision	(i) Payment due and payable in respect of Specified Assets which are constructed, acquired or installed after the 5th (fifth) anniversary of COD but no later than the 20th (twentieth) anniversary of the Date of Award of Concession, shall be limited to the lowest of: (ii) Adjusted Depreciated Value thereof; (iii) the replacement value thereof, as assessed by an Approved Valuer, who shall be selected and appointed by the Concessional Authority, within 15 (fifteen) days of termination, for submitting his assessment within 30 (thirty) days of his appointment hereunder; and (iv) 40% of Total Project Cost.	No provision
M	KPI for Concessional Authority- Appendix 19 in MCA 2021		
	Not provided	KPI for Concessional Authority to be given and LD applicable for shortfall in performance	Not provided
N	Shareholding- Article 11 in MCA 2021		
	Concessionaire shall ensure that	Concessionaire shall ensure that the Applicant/ members of the Consortium maintain	Concessionaire shall

<p>the Applicant/ members of the Consortium maintain Management Control at least until expiry of the two (2) years after COD as also maintain their equity holding in the Concessionaire such that:</p> <p>(a) Selected Bidder/Consortium Members together with its/their Associates hold not less than 51% (Fifty One Percent) of its issued and paid up equity and that no member of Consortium whose technical and financial capacity was evaluated for the purposes of Pre-qualifications in response to Request for Qualification shall hold less than 26% (Twenty Six Percent) of such equity until expiry of two (2)</p>	<p>Management Control at least until expiry of the one (1) year after COD as also maintain their equity holding in the Concessionaire such that :</p> <p>(a) Selected Bidder/Consortium Members together with its/their Associates hold not less than 51% of its issued and paid up equity and that no member of Consortium whose technical and financial capacity was evaluated for the purposes of Pre-qualifications in response to Request for Qualification shall hold less than 26% of such equity until expiry of one (1) year after COD.</p> <p>At any time, after expiry of the aforesaid share holding period, lead member can approach Concession Authority for approval proposing a new entity/ consortium.</p> <p>Concession Authority may at its sole discretion consider and approve it subject to the entity/consortium meeting the eligibility criteria as prescribed in Bid Document for the Project; and</p> <p>(b) M/s [●] (“Lead Member”) of the Consortium (original or new as the case may be) legally and beneficially holds at any time not less than 50% of the Consortium’s holding in the paid-up equity capital of the Concessionaire.</p> <p>Any Transfer of shareholding in the Concessionaire and/or direct or indirect change in the Management Control of the Concessionaire, including by way of a restructuring or amalgamation, shall only be with the prior written approval of the Concessioning Authority which consent shall not be withheld except</p> <p>(i) for reasons of national security; or</p> <p>(ii) [if the Person proposed for assuming such Management Control would by virtue of the restrictions imposed under the Applicable Law</p>	<p>ensure that the Applicant/ members of the Consortium maintain Management Control at least until expiry of (3) Three years from the Date of Commercial Operation as also maintain their equity holding in the Concessionaire such that:</p> <p>(a) The Applicant/ members of the Consortium legally and beneficially hold not less than 51% (fifty one percent) of its paid up equity capital until 3 (three) years after Date of Commercial</p>
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<p>years after COD.</p> <p>At any time, after expiry of the aforesaid share holding period, lead member can approach Authority for approval proposing a new entity/ consortium.</p> <p>Authority may at its sole discretion consider and approve it subject to the entity/consortium meeting the eligibility criteria as prescribed in Bid Document for the Project; and</p> <p>(b) M/s [●] (“Lead Member”) of the Consortium (original or new as the case may be) legally and beneficially holds at any time not less than 50% (fifty percent) of the Consortium’s holding in the paid up equity capital of the Concessionaire, including by way</p>	<p>or the conditions of bidding (including restrictions to avoid anti-competitive and monopolistic practice) and/or public policy be disqualified from undertaking the Project.]</p>	<p>Operations and not less than 26% (twenty six percent) of its paid up equity capital during the balance</p> <p>Concession Period; and</p> <p>(b) M/s [●] (“Lead Member”) legally and beneficially holds at any time not less than 50% (fifty percent) of the Consortium’s holding in the paid up equity capital of the Concessionaire.</p>
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	of a restructuring or amalgamation, shall only be with the prior written approval of the Concessioneing Authority.		
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ANNEXURE XV

Sr. No.	Port Name	Details of Employees working in Major Ports			
1.	Kamarajar Port Limited, Chennai	A. PERMANENT EMPLOYEES – 92 Nos. B. <u>TEMPORARY BASIS</u> :- (1) CONTRACT BASIS – 03 NOS (2) EMPLOYEES DEPLOYED FROM CHENNAI PORT AUTHORITY – 35 NOS C. VACANCIES – 64 NOS			
2.	Mumbai Port Authority (MbPA)	Class	Sanctioned Strength	Operated Strength	Vacancies
		I	417	248	169
		II	26	22	4
		III	3905	2088	1817
		IV	3069	1341	1728
		Total	7417	3699	3718
3.	Mormugao Port Authority (MoPA)	Classification	Sanctioned Strength	Present Strength	Vacant Posts
		Class I	122	77	45
		Class II	85	71	14
		Class III	1379	858	521
		Class IV	504	202	302
		SUB TOTAL	2090	1208	882
4.	Deendayal Port Authority (DPA)	Category	Sanctioned Strength	Present Strength	Vacant Position
		Class I	120	73	47
		Class II	63	50	13
		Class III	1292	797	495
		Class IV	837	426	411
		Total	2312	1346	966
		Shore Workers	--	55	--
		CHD Workers	--	304	--
5.	V.O. Chidambaranar Port Authority (VoCPA)	Group	Working Strength	Vacant	

		Class - I	57	48	
		Class – II	48	14	
		Class – III	198	381	
		Class – IV	62	122	
		TOTAL	365	565	
		CHD			
		Class – III	53	--	
		Class – IV	40	--	
		TOTAL	93	--	
		Total contractual employees in VOCPA.	24	--	
6.	Jawaharlal Nehru Port Authority (JNPA)	Category	Employee Strength	Vacant	
		Chairperson & Dy. Chairperson	2	<p>(i) The total vacancies in JNPA is 301 against sanctioned strength of 1660 in all the above category.</p> <p>(ii) Apart from the Permanent employees, the JNPA has awarded contracts to various local Project Affected Persons (PAP) labour Co.Op. Societies such as Housekeeping, gardening, Electrical and Civil maintenance assistance, township cleaning, school, hospital, general premises related conservancy work etc. Total of 820 contract workers who are PAPs and local residents are deployed through these PAP labour Co. Op. societies for the aforementioned work.</p>	
		Class-I	131		
		Class-II	26		
		Class-III	573		
		Class-IV	55		
		Total	787		
7.	Syama Prasad Mookerjee Port Authority (SMPK)	Category	Sanctioned Strength	Present Strength	Vacant
	Syama Prasad Mookerjee	Class-I	1712	864	848

	Port Authority (including KDS+ HDC+ SMPK)	Class-II	490	240	250	
		Class-III	5482	2726	2756	
		Class-IV	2412	1008	1404	
		Total	10096	4838	5258	
Contractually engaged persons working against various categories						
	Name of Port	KDS	HDC	SMPK		
	Equivalent to Class-I	90	49	139		
	Equivalent to Class-II	32	20	52		
	Equivalent to Class-III	179	129	308		
	Equivalent to Class-IV	922	50	972		
	Total	1223	248	1471		
8.	New Mangalore Port Authority (NMPA)	Category	Sanctioned Strength		Present Strength	Vacant
		Class-I	82	55	27	
		Class-II	93	64	29	
		Class-III	380	195	185	
		Class-IV	58	27	31	
		Total	613	341	272	
9.	Cochin Port Authority (CoPA)	Category	Sanctioned Strength		Present Strength	Vacant
		Class-I	146	81	65	
		Class-II	100	80	20	
		Class-III	1437	746	691	
		Class-IV	204	45	159	
		Total	1887	952	935	
10.	Visakhapatnam Port Authority	Category	Sanctioned Strength		Present Strength	Vacant
		Class-I	222	135	87	
		Class-II	110	97	13	
		Class-III	2007	1359	648	
		Class-IV	1474	1010	464	
		Total	3813	2601	1212	
11.	Paradip Port Authority (PPA)	Category	Sanctioned Strength		Present Strength	Vacant
		Class-I	144	91	53	

		Class-II	127	52	75
		Class-III	1114	316	798
		Class-IV	567	42	525
		CHE (Class-III)	0	0	0
		CHE (Class-IV)	6	6	0
		Female cleaning Workers	9	9	0
		Total	1967	516	1451
12.	Chennai Port Authority (ChPA)	Details of Employees (Permanent basis)		Details of Employees (Temporary Basis)	Details of Employees (Contract Basis)
		Working strength- 3090	Vacancy- 1872	6	27

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