



Strengthening India's Maritime Sector: Port Capacity Expansion and Inland Waterway Development

(Ministry of Ports, Shipping and Waterways)

August 08, 2024

Expanding port capacity and developing inland waterways have enhanced India's maritime infrastructure. This comprehensive approach encompasses significant increases in cargo handling capacities at major ports, initiatives to improve connectivity and navigability of national waterways, and the implementation of digital solutions to facilitate trade and transportation. Focusing on sustainable development and boosting regional trade, the Government of India has undertaken various projects and reforms, such as the Jal Marg Vikas Project and the introduction of Ro-Ro/Ro-Pax services, to revolutionize the maritime sector and promote economic growth.

Port Capacity Expansion

The port capacity expansion has been implemented across all 12 Major Ports. The data in the table indicates a significant increase in the annual cargo handling capacity at major Indian ports from 2014-15 to 2023-24. The total cargo handled rose from 871.52 million tonnes to 1629.86 million tonnes, marking an 87.01% increase. Paradip Port experienced the highest growth at 141.86%, with

Capacity Expansion In 12 Major Ports

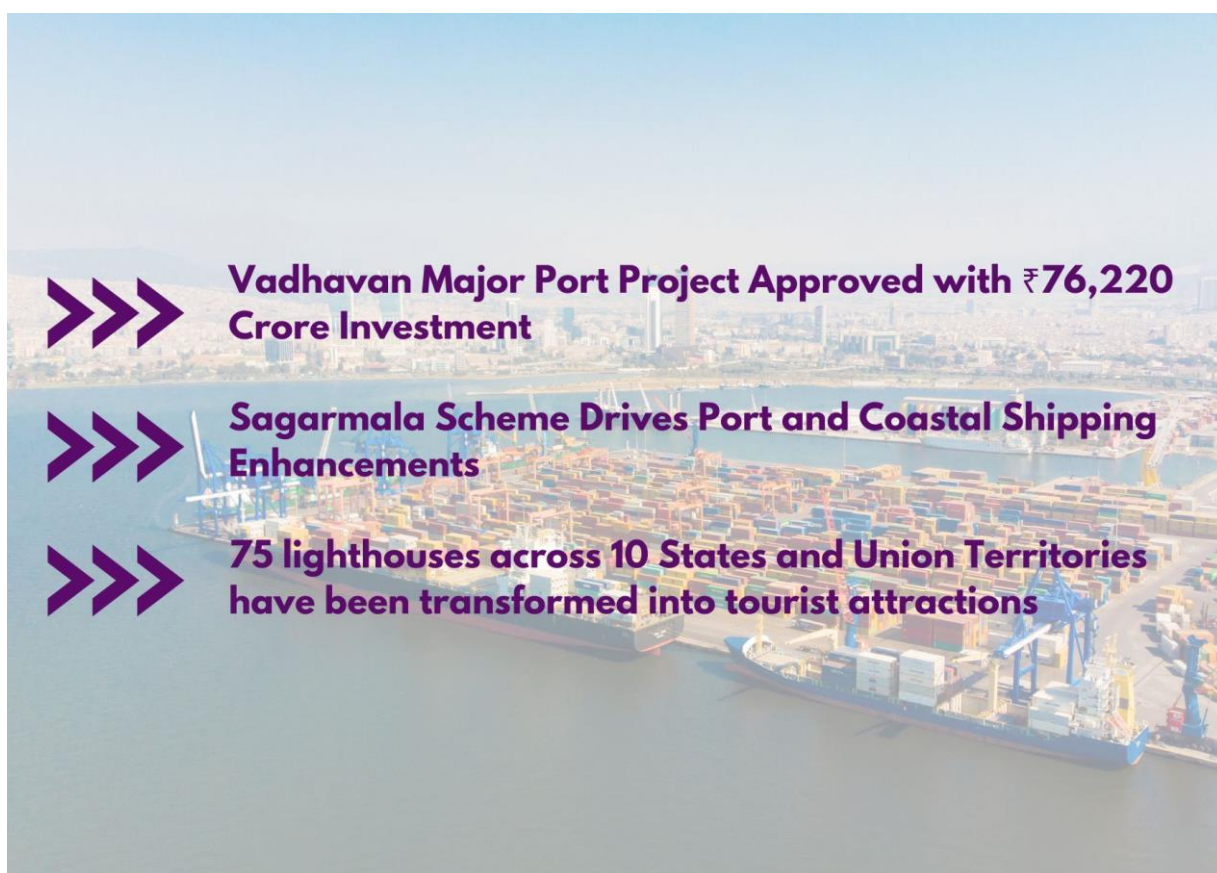
(IN MILLION TONNES PER ANNUM)

Port	2014-15	2023-24	% increase
Syama Prasad Mookerjee Port	70.85	93.02	31.29
Paradip Port	119.8	289.75	141.86
Visakhapatnam Port	96.76	148.18	53.14
Kamarajar Port	37	94	154.05
Chennai Port	86.04	136	58.07
V.O. Chidambaranar Port	44.55	111.46	150.19
Cochin Port	49.66	79.9	60.89
New Mangalore Port	77.77	114.96	47.82
Mormugao Port	43.76	63.4	44.88
Mumbai Port	44.53	84	88.64
Jawaharlal Nehru Port	79.37	145.87	83.78
Deendayal Port	121.43	269.32	121.79
Total	871.52	1629.86	87.01

cargo volumes jumping from 119.8 million tonnes to 289.75 million tonnes. Kamarajar Port also saw a notable rise of 154.05%, increasing from 37 million tonnes to 94 million tonnes. Other ports like Syama Prasad Mookerjee, Chennai, and Deendayal (Gujarat) also recorded significant growth, highlighting the overall expansion and modernisation of India's port infrastructure during this period.

Major Boost to Maritime Infrastructure: New Port, Coastal Shipping Projects, and Lighthouse Tourism

The Union Cabinet has approved the development of a new Major Port at Vadhavan near Dahanu in Maharashtra. This project, with a total cost of ₹76,220 crores, will feature nine container terminals, four multipurpose berths, four liquid cargo berths, a Ro-Ro berth, and a Coast Guard berth. It aims to achieve a cumulative capacity of 298 million metric tons (MMT) per annum, including approximately 23.2 million TEUs (Twenty-foot Equivalent Units) for container handling.



Under the coastal shipping, 15 Sagarmala projects, amounting to Rs. 849 crores, have been completed to establish coastal berths and Ro-Ro/Ro-Pax jetties. Key initiatives also include easing licensing requirements under the Merchant Shipping Act, providing a 40% discount on vessel and cargo charges at major ports, and implementing priority berthing policies. Additionally, the reduction of GST on bunker fuels from 18% to 5% and the introduction of green channel clearance for expedited cargo evacuation are significant steps. The government is also facilitating reimbursement of freight subsidies for coastal shipping and improving first and last-mile connectivity to ports through collaborations with the Ministry of Railways and the Ministry of Road Transport and Highways.

75 lighthouses across 10 States and Union Territories have been transformed into tourist attractions, with these projects completed and officially launched on February 28, 2024. Maintenance of these sites is funded through central budget allocations, and the Government is also

working on an online ticketing system to improve visitor access and experience at these newly developed tourism sites.

Securing significant funding, delays in land acquisition, capacity constraints, and inefficiencies in logistics and connectivity are the challenges in port development. To tackle these issues, the Government has introduced the Sagarmala Programme to enhance port infrastructure and promote port-led industrialisation¹ Under the Sagarmala initiative, two Centres of Excellence in Maritime and Shipbuilding (CEMs) have been established in Mumbai and Visakhapatnam. The Visakhapatnam campus is the first of its kind in Asia. Integrated within the Indian Maritime University, it houses 18 laboratories and has equipped over 10,000 students with employable engineering and technical skills.²

Steps Taken for Growth of Cargo Transportation on Waterways

1. Fairway development works

- Under the Jal Marg Vikas Project (JMVP), fairway development works are ongoing to ensure a Least Available Depth (LAD) of 3.0 meters in Haldia-Barh, 2.5 meters in Barh-Ghazipur, and 2.2 meters in Ghazipur-Varanasi on National Waterway-1 (NW-1). This project is being executed by the Inland Waterways Authority of India (IWAI) with technical and financial assistance from the World Bank.
- To improve connectivity between NW-1 and NW-2/NW-16 via the Indo-Bangladesh protocol route, India and Bangladesh are undertaking fairway development in the critical and shallow stretches between Sirajganj and Daikhowa on protocol routes No.1 & 2 and between Ashuganj and Zakiganj on protocol routes No. 3 & 4, targeting a LAD of 2.5 meters year-round.
- Additionally, fairway development works are being carried out on NW-97 in the Sunderbans to facilitate smooth navigation on the Indo-Bangladesh Protocol Route.

2. Development of New National Waterways

IWAI has identified 26 new national waterways through techno-economic feasibility studies for technical interventions to make them navigable for transportation. Once developed, these new waterways will provide an alternative mode of transportation in various regions.

3. Ro-Ro/Ro-Pax Service Commenced in Various National Waterways

The Prime Minister inaugurated the Ro-Ro (Roll-on/Roll-off) and Ro-Pax (Roll-on/Pax) vessels in 2021 for multiple routes. These services included the MV Rani Gaidinliu and MV Sachin Dev Barman operating between Neamati and Kamalabari (Majuli), MV JFR Jacob connecting Guwahati and North Guwahati, and MV Bob Khathing serving the Dhubri and Fakirganj (U/S Hatsingimari) route. MV Adi Shankara and MV C.V. Raman were also inaugurated to operate between Wellington Island and Bolghaty. These services are part of improving connectivity and transportation efficiency on India's waterways. Hybrid electric catamaran vessels MV Nishadraj and MV Guh have been

¹ <https://pib.gov.in/PressReleasePage.aspx?PRID=2040911>

² <https://pib.gov.in/PressReleasePage.aspx?PRID=2040930>

handed over to the Uttar Pradesh Tourism Department for operations in Varanasi and Ayodhya as of March 2024.

4. Revision of Levy & Collection of Fees

The Ministry of Ports, Shipping, and Waterways has waived waterway user charges for an initial three years to promote inland waterways as a supplementary mode of transport.

5. Digital solutions for Ease-Of-Doing Business

- **CAR-D (Cargo Data) Portal:** A web-based portal for the collection, compilation, analysis, and dissemination of all cargo and cruise movement data on National Waterways to stakeholders.
- **PANI (Portal for Asset & Navigation Information):** An integrated solution providing detailed information on river navigation, infrastructure, fairway, facilities, connectivity at jetties, and emergency services, aimed at enhancing management and stakeholder collaboration.

6. Enhanced regional trade using Inland Water Transport (IWT) mode

- **India and Bangladesh Trade:** With the addition of 7 new ports of call to the existing 6 on each side, and 2 more waterway routes added to the existing 8 routes, the accessibility of inland water transport (IWT) for trade between India and Bangladesh is expected to increase, leading to more traffic on the National Waterways (NWs). Maia Riverine Port has been operationalised, and five trial movements have been completed between Sultanganj (Godagari-Rajshahi).
- **Bhutan and Bangladesh Trade:** Bhutanese stone exporters are using inland waterways as an alternative mode of transportation due to lower costs and larger shipment sizes compared to road transport. The first shipment under IWAI supervision occurred in July 2019, and this trade is expected to grow significantly.

7. MoUs for Cargo and Cruise Promotion

Several MoUs were signed in 2023-24 to promote cargo and cruise tourism:

- Development of a riverine religious tourism circuit in Brahmaputra (Assam Tourism).
- Operation and management of two Ro-Pax vessels in Bihar.
- Transportation of petroleum products for Numaligarh Refinery.
- Operation of six electric catamaran vessels in Ayodhya, Varanasi, and Mathura (UP Tourism).
- Ten MoUs during the Global Maritime India Summit 2023 to enhance cargo and river tourism.

8. Stakeholder Consultations

IWAI conducted multiple consultations and summits to promote inland waterways, cargo promotion,

including:

- The PM GatiShakti Multimodal Waterway Connectivity Summit was held in Varanasi from November 11th to 12th, 2022. This summit focused on creating awareness about the PM GatiShakti initiative. During the summit, seven community jetties were inaugurated, and foundation stones were laid for eight community jetties on the Ganga.
- The world's longest river cruise and waterways development projects were inaugurated, and the foundation stone was laid online by the Prime Minister on January 13, 2023, at Varanasi. The Ganga Vilas River cruise successfully completed its 3200 km voyage to Dibrugarh on the Brahmaputra via the Indo-Bangladesh Protocol Route on February 28, 2023.
- The Union Minister for Ports, Shipping & Waterways held a stakeholder meeting with Indo-Bangladesh-Bhutan IWT Operators at IWAI Dhubri on June 12, 2023, to promote Inland Water Transport (IWT).
- The 3rd Global Maritime India Summit 2023 was held from October 17th to 19th in Mumbai, with participants from more than 70 countries.
- To accelerate the holistic development of Inland Waterway Transport in the country, leading to enhanced cargo, passenger movement, and river cruise tourism with the active association of States, an Inland Waterways Development Council (IWDC) has been set up under the chairmanship of the Minister of Ports, Shipping & Waterways and Ayush. This council includes representatives from State Governments and Union Territories for the comprehensive development of National Waterways, other inland waterways, and the associated ecosystem. The first IWDC meeting was held in Kolkata on January 08, 2024.
- To explore the possibility of further cargo movement along NW-1, a meeting was chaired by the Chairman of IWAI in Kolkata on May 4, 2023, with stakeholders.
- Union Minister for Ports, Shipping and Waterways (PSW) held a stakeholder meeting with Indo-Bangladesh-Bhutan IWT Operators at IWAI Dhubri on June 12, 2023.
- A Stakeholders Conference on the use of National Waterways for transportation was held in Kolkata on March 27, 2024.

9. Interventions under the World Bank-supported Jal Marg Vikas Project -II (Arth Ganga)

JMVP-II (Arth Ganga) is a project for the socio-economic upliftment of the population living around River Ganga i.e. NW-1 and has been undertaken for development on an approach based on the principles on the sustainable development model to energize economic activities which will impact on overall ecosystem along the riverbank. This can lead to inclusive growth and play a key role in improving the livelihoods of the populations with the transportation of goods and passengers (including tourist) through National Waterway-1. The project envisages a cost of Rs. 746 Crore.

List of new NWs sanctioned under Phase-I development

S/N	National Waterways (NWs)	Investment Sanctioned (Rs. in cr.)
1.	NW-8- Alappuzha-Changanassery Canal in Kerala	3
2.	NW-9- Alappuzha-Athirampuzha Canal in Kerala	3
3.	NW-27-Cumberjua River in Goa	15
4.	NW-68- Mandovi River in Goa	
5.	NW-111- Zuari River in Goa	
6.	NW-86- River Rupnarayan in West Bengal	20
7.	NW-97- Sundarbans Waterways in West Bengal	20
8.	NW-40- Ghaghra River in U.P. & Bihar	15
9.	NW-44- Ichamati River in West Bengal	10
10.	NW-10- Amba River in Maharashtra	10
11.	NW-28-Dabhol Creek Vashisthi River in Maharashtra	
12.	NW-57- Kopili River in Assam	32
13.	NW-31- Dhansiri River in Assam	84
14.	NW-16-River Barak in Assam	148

The transformative measures undertaken to expand port capacity and enhance inland waterways have resulted in substantial growth in cargo handling and improved regional connectivity. The concerted efforts of the Government of India, in collaboration with stakeholders and international partners, have laid a strong foundation for sustainable development in the maritime sector. Through continuous innovations and strategic interventions, India is set to leverage its waterways for efficient cargo transportation, tourism, and trade, thereby contributing significantly to the nation's economic progress and regional integration. The initiatives, such as the Jal Marg Vikas Project and the operationalisation of new national waterways, reflect a forward-looking vision to maximise the potential of India's vast network of rivers and ports.

Reference

[Rajya Sabha Starred Question No- *88 Dated 30/07/2024](#)

[Rajya Sabha Unstarred Question No- 958 Dated July 30, 2024](#)

<https://shipmin.gov.in/>

<https://pib.gov.in/PressReleasePage.aspx?PRID=2040911>

<https://pib.gov.in/PressReleasePage.aspx?PRID=2040930>

Santosh Kumar/ Ritu Kataria/ Aswathy Nair