



Inland Waterways in India

For Prelims: [PM Gati Shakti](#), National Waterway, Inland Waterways Authority of India, [Multi-Modal Logistics Park](#), [PM MITRA parks](#), [Mega Food Parks](#)

For Mains: Role of Inland Waterways in India's transportation network, Infrastructure & Development

[Source: PIB](#)

Why in News?

Prime Minister Narendra Modi has lauded the inauguration of the **Inland Waterways Transport (IWT) Terminal** at Jogighopa in Assam, highlighting [India's vast inland waterways](#)' (about 14,500 km of navigable waterways) potential for freight transport.

What are the Key Facts About Inland Waterways Transport Terminal at Jogighopa?

- **IWT Terminal:** Located in Assam, on the Brahmaputra River (**National Waterway-2 (NW-2)**).
 - The **Bangladesh Border (Dhubri) to Sadiya** stretch of the **Brahmaputra River (891 km) in Assam** was declared **NW-2** under the **National Waterway Act, 1988**.
- **Significance:** The **Jogighopa IWT Terminal** supports [PM Gati Shakti](#), enhancing inland waterways for economic growth.
 - It serves as an **international port of call** for Bhutan and Bangladesh, linking to the [Multi-Modal Logistics Park \(MMLP\)](#) at Jogighopa, boosting cargo movement and logistics in Assam and the Northeast.
 - It boosts **trade and commerce** with neighboring countries. Reduces **transportation costs** and **transit time**.
 - Strengthens [India's Act East Policy](#). Improves **multi-modal connectivity** by integrating road, rail, and waterways. Provides direct waterway access for Bhutan, reducing reliance on road networks.

What is Inland Waterways Transport?

- **About:** It refers to the movement of people and goods on navigable waterways such as rivers, canals, lakes, and other inland water bodies.
- **Legislative Framework:**
 - **Inland Waterways Authority of India Act, 1985:** Led to the **formation of Inland Waterways Authority of India (IWAI) in 1986**.
 - IWAI is an **autonomous organization** responsible for the **development, maintenance, and regulation** of NWs.
 - **National Waterways Act, 2016:** Declared **111 inland waterways** as NWs for **enhanced shipping and navigation**.
 - **Inland Vessels Act, 2021:** Replaced the Inland Vessels Act, 1917, introduced uniform

regulations for inland vessels, ensuring safety, navigation, and compliance across India.

- **Criteria to be as a National Waterway:** A waterway qualifies as a **National Waterway** if it is **navigable by propelled vessels, and 50 km long** (except for urban areas and intra-port traffic).
 - It should serve **multiple states** or connect a **prosperous hinterland** or **major ports** or support strategic navigation for national security or link unserved **areas lacking other transport modes**.
- **Growth of Inland Waterways in India: 767% increase** in operational **National Waterways** since 2014, and **635% rise** in cargo handled.
 - Cargo traffic grew from 18 to 133 million tonnes (FY 2023-24) at a 22% **Compound Annual Growth Rate (CAGR)**.
- **Government Initiatives:** [Maritime India Vision 2030](#), [Sagarmala Programme](#), and [National Perspective Plan for interlinking rivers](#).
- **Major National Waterways in India:**

National Waterway (NW) No.	Location(s)
NW-1: Ganga-Bhagirathi-Hooghly River System (Haldia - Allahabad)	Uttar Pradesh, Bihar, Jharkhand, West Bengal
NW-3: West Coast Canal (Kottapuram - Kollam), Champakara and Udyogmandal Canals	Kerala
NW-4: Krishna River (Muktiyala - Vijayawada)	Andhra Pradesh
NW-10: Amba River	Maharashtra
NW-68: Mandovi River (Usgaon Bridge to Arabian Sea)	Goa
NW-73: Narmada River	Gujarat, Maharashtra
NW-100: Tapi River	Gujarat, Maharashtra
NW-97: Sunderbans Waterways (Namkhana to AtharaBanki Khal)	West Bengal (through Indo-Bangladesh Protocol Route)

What are the Benefits and Challenges in Developing IWT in India?

Category	Benefits	Challenges
Cost & Efficiency	Cost-effective and fuel-efficient transport mode	High siltation and shoal formation increase maintenance costs
Environmental Impact	Lower carbon emissions and eco-friendly transport	Seasonal depth fluctuations (many rivers have shallow depths) and dredging impact riverbeds, aquatic life, and lead to community resistance due to ecological concerns.
Traffic Reduction	Reduces congestion on roads and railways	Lack of adequate navigational aids and waterways transport terminals
Trade & Connectivity	Enhances domestic and cross-border trade (e.g., Indo-Bangladesh Protocol route)	Inconsistent water flow, as major portion is diverted for irrigation and industrial use
Regional Development	Boosts economic growth in remote areas	Infrastructure gaps, including inadequate jetties and ports
Tourism Potential	Promotes river tourism and cruise industry	Bridges and vertical clearance issues for large vessels
Private Investment	Encourages multi-modal transport integration	Limited private sector participation and investment

Way Forward

- **Cargo and Passenger Movement:** Integrate inland waterways with economic zones like [PM MITRA parks](#) and [Mega Food Parks](#) to boost cargo movement. Develop cruise tourism to enhance passenger transport via the [Cruise Bharat Mission](#).
 - Boost cargo movement under the [Jalvahak Scheme](#) with incentives and fixed scheduled

services on key National Waterways.

- **Financial & Policy Support:** Create Inland Waterways Development Funds, enhance waterway-related infrastructure, preserve traditional navigation practices through the **Riverine Community Development Scheme**.
- **Public-Private Partnership:** Attract private investment in terminal development, vessel manufacturing, and cargo handling by providing financial incentives and tax benefits.
- **Sustainable Development:** Adopt **green vessels**, and **sustainable dredging techniques** are crucial for eco-friendly inland waterway development.
 - These measures will reduce pollution, protect aquatic ecosystems, and ensure long-term navigability while maintaining environmental balance.

Drishti Mains Question:

How can Inland Waterways contribute to India's multi-modal transport network

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Enumerate the problems and prospects of inland water transport in India. **(2016)**

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