



## Boosting India's Shipbuilding Industry

*This editorial is based on “[Some wind behind the sails of India's shipping industry](#)” which was published in The Hindu on 04/02/2025. The article brings into picture the stagnation of India's shipping industry, despite strong GDP growth and ₹5.8 lakh crore Sagarmala investments, as it faces a declining global ranking and minimal fleet expansion. While initiatives like the ₹25,000 crore Maritime Development Fund in Budget 2025 are promising, more reforms are essential to rejuvenate the sector.*

**For Prelims:** [Shipping industry](#), [Sagarmala programme](#), [Major ports](#), [Gati Shakti Initiative](#), [Maritime India Vision 2030](#), [International Maritime Organization](#), [Green Hydrogen Mission](#), [Foreign direct investment](#), [Ship repair and maintenance](#), [Make in India](#), [Production Linked Incentive](#), [National Infrastructure Pipeline](#), [Inland Waterways Authority of India](#).

**For Mains:** Current Status of the Shipbuilding Sector in India, Key Issues Hindering the Growth of the Shipbuilding Sector in India.

Despite India's robust GDP growth and significant maritime investments through the [Sagarmala programme](#) (₹5.8 lakh crore by 2035), the nation's [shipping industry](#) remains stagnant with minimal growth in cargo handling and vessel numbers. The Indian fleet, though recently improved to an average age of 21 years, has seen India's global ranking in ship ownership decline from **17th to 19th position**. While the government's recent Budget 2025 announcements, including a **₹25,000 crore Maritime Development Fund and infrastructure status for vessels**, are positive steps, but India still needs to focus on several key areas to revitalize its shipping sector.

### What is the Current Status of the Shipbuilding Sector in India?

- **About:** In 2024, the Indian shipbuilding industry is valued at **\$1.12 billion, which is a significant jump from the valuation of \$90 million back in 2022.**
  - India is home to 13 [major ports](#), over 200 other ports, 30 shipyards with both public and private sector players. The major shipyards include:
    - **Public Sector:**
      - Cochin Shipyard Ltd. (CSL)
      - Hindustan Shipyard Ltd. (HSL)
      - Garden Reach Shipbuilders & Engineers (GRSE)
      - Mazagon Dock Shipbuilders Ltd. (MDL)
    - **Private Sector:**
      - L&T Shipbuilding
      - Reliance Naval & Engineering Ltd. (RNEL)
- **Government Initiatives & Policy Support**
  - **Shipbuilding Financial Assistance Policy (2016-2026)** – Provides subsidies of up

- to **20%** on shipbuilding contracts.
- **Sagarmala Programme** – Aims to modernize ports, develop coastal shipping, and enhance logistics efficiency.
- **Atmanirbhar Bharat in Shipbuilding** – Focus on **indigenous warship production**, including aircraft carriers (INS Vikrant).
  - India needs about 700 commercial ships (200 ocean-going and 500 coastal/inland) to progressively replace the older ones by **2047**.
- **Gati Shakti Initiative** – Infrastructure push to boost shipbuilding-related logistics.

## Why Investing in the Shipbuilding Sector is Crucial for India?

- **Economic Growth and Global Market Share Expansion:** Investing in shipbuilding can **create a multiplier effect** by boosting manufacturing, generating employment, and strengthening ancillary industries like steel and electronics.
  - With India's **rising global trade**, a robust domestic shipbuilding sector can **reduce foreign dependence and enhance exports**.
  - India's shipbuilding industry grew from \$90 million (2022) to \$1.12 billion (2024), with projections of \$8 billion by 2033 (CAGR 60%).
    - **Maritime India Vision 2030** aims to push India to the top 10 shipbuilding nations by 2030.
- **Strategic and Defense Preparedness:** A strong shipbuilding sector is **critical for national security**, ensuring self-reliance in manufacturing warships, submarines, and patrol vessels.
  - Strengthening indigenous shipbuilding **aligns with Atmanirbhar Bharat**, reducing foreign dependency and securing maritime borders more effectively.
  - Under **Project 75**, six Scorpene-class submarines (Kalvari class) have been constructed indigenously (**at Mazagon Dock Shipbuilders Limited Mumbai**).
- **Supporting Coastal and Blue Economy Development:** Shipbuilding is an integral part of **India's Blue Economy**, which includes fisheries, port development, and marine tourism.
  - A strong shipbuilding industry **enhances inland and coastal shipping**, reducing logistics costs and **decongesting road and rail networks**.
    - Additionally, it can help **India tap into deep-sea exploration for minerals and hydrocarbons**, improving energy security.
  - The **Blue Economy contributes 4% to India's GDP**. Sagarmala Program targets port-led development, coastal economic zones and waterway expansion.
- **Strengthening Renewable and Green Shipping:** With **Net Zero 2070 goals**, India needs a sustainable shipbuilding sector that produces **low-emission, fuel-efficient vessels**.
  - Investment in **green hydrogen-powered and electric vessels** will help India **comply with International Maritime Organization (IMO) norms**.
  - Developing **green shipyards** will also boost India's standing in global sustainable shipping.
    - Cochin Shipyard launched **India's first hydrogen fuel-powered ferry in 2024**, aligning with India's **Green Hydrogen Mission**.
- **Enhancing India's Role in Global Supply Chains:** A robust shipbuilding sector strengthens India's position in **global maritime supply chains**, making it a **preferred destination for ship manufacturing, repair, and leasing**.
  - This reduces the **dependency on East Asian nations** and aligns with global supply chain diversification trends.
  - India can also **attract foreign direct investment (FDI)** in maritime manufacturing.

## What are the Key Issues Hindering the Growth of the Shipbuilding Sector in India?

- **Lack of a Competitive Shipbuilding Ecosystem:** India's shipbuilding industry suffers from **long construction timelines, and inconsistent quality standards**, making Indian-built ships less competitive in the global market.
  - Unlike China, South Korea, and Japan, **India lacks a well-integrated maritime cluster** with shipyards, component suppliers, and advanced R&D facilities in close proximity.

- Additionally, **delays in project execution** due to bureaucratic hurdles further reduce competitiveness.
- India ranks **20th in global shipbuilding with only a 0.06% share**, while **China alone holds over 50%**.
  - The annual shipbuilding output of Indian shipyards is **only 0.072 million GT**, which needs to increase to **0.33 million GT by 2030** to meet the Maritime India Vision (MIV) 2030 goals.
- **High Capital Costs and Lack of Financing:** Shipbuilding is a **capital-intensive industry** requiring significant upfront investment in shipyards, machinery, and skilled labor.
  - Indian shipbuilders **struggle to secure low-cost financing**, unlike their global competitors who receive **strong state-backed financial support**.
    - The absence of **long-term shipbuilding credit facilities and a dedicated maritime financing institution** further weakens India's competitive edge.
  - **China heavily subsidizes its domestic shipbuilding industry** while imposing restrictions on foreign competitors, limiting non-Chinese shipbuilders' market access, while Indian shipyards rely on expensive commercial bank loans.
- **Heavy Dependence on Imported Raw Materials and Components:** India's shipbuilders depend on foreign suppliers for critical components like marine-grade steel, navigation systems, and propulsion equipment, leading to high costs and supply chain vulnerabilities.
  - Despite **Make in India**, domestic manufacturing of shipbuilding components remains weak.
  - India's imports of ships, boats, and floating structures, though declined, is still at **USD 479.60 million in 2023**.
- **Infrastructure Bottlenecks and Lack of Modern Shipyards:** India's shipyards are **smaller and less automated** compared to global leaders, leading to **higher production costs and longer construction times**.
  - Many government shipyards **operate with outdated machinery and inadequate dry docks**, limiting their ability to build larger vessels.
    - Moreover, **port congestion and poor logistics** add to the inefficiencies in the shipbuilding supply chain.
  - **Cochin Shipyard's largest dry dock is 310m, while China's Shanghai Waigaoqiao Shipyard is the largest dry dock in the world, allowing it to build mega-ships.**
- **Absence of a Strong Domestic Market for Shipbuilding:** Unlike China, which has a **large domestic demand for new vessels**, India's **shipping companies prefer to buy second-hand foreign ships** rather than ordering new ones from Indian shipyards.
  - This is due to **high costs, longer delivery times, and lack of financing options** for Indian-built ships.
  - Without a strong domestic order book, Indian shipyards **struggle to scale up production and reduce costs**.
- **Weak Repair and Maintenance Ecosystem:** While India has a growing merchant navy and defense fleet, its **ship repair and maintenance (MRO) capabilities remain underdeveloped**.
  - India's share in the **global ship repair market is less than 1%**. Many Indian shipowners prefer **sending vessels to Singapore, China, or the UAE for repairs**, instead of Indian shipyards, due to cost and quality concerns.
  - The lack of **state-of-the-art dry docks and repair infrastructure** limits India's ability to capture the lucrative ship repair market.

## What Measures can India Adopt to Accelerate the Growth of India's Shipbuilding Sector?

- **Strengthening Domestic Manufacturing of Shipbuilding Components:** Reducing dependence on **imported marine-grade steel, propulsion systems, and navigation equipment** is critical to making Indian-built ships cost-competitive.
  - The **Production Linked Incentive (PLI) scheme for advanced manufacturing** can be expanded to cover key shipbuilding components, encouraging domestic production.
  - Additionally, linking **Make in India with the Sagarmala program** can create dedicated maritime industrial zones near ports.
    - A phased manufacturing program (PMP) can also be introduced to **boost**

indigenization in a structured manner.

- **Establishing a Dedicated Shipbuilding Finance:** A dedicated **Shipbuilding and Maritime Financing Institution** under the Public-Private Partnership (PPP) model can provide **low-interest loans, export credit, and ship leasing options**.
  - This can be linked to the [National Infrastructure Pipeline \(NIP\)](#) to ensure structured financing.
  - A **Shipbuilding Export Promotion Fund** can also help Indian shipyards compete globally by offering credit at concessional rates.
- **Revamping and Expanding Existing Shipyard Infrastructure:** There is a need to expedite the passage of [Development of Enterprise and Service Hubs \(DESH\) Bill 2022](#), that can be leveraged to create **Maritime SEZs**, allowing shipbuilders to access world-class logistics, technology, and tax benefits.
  - Existing public-sector shipyards like **Cochin Shipyard, Mazagon Dock, and Hindustan Shipyard** should be modernized under the **Public-Private Partnership (PPP) model**, inviting global expertise and investment.
  - Also, **India needs to classify ships in the infrastructure list** as recommended by **Rangarajan Commission**.
- **Creating Sustained Domestic Demand for Indian-built Ships:** The [Inland Waterways Authority of India \(IWAI\)](#) and the **Ministry of Ports** should adopt a **Buy Indian Policy**, ensuring that all future government and defense ship orders are placed with Indian shipyards, in the lines of Positive Indigenisation list by Ministry of Defence.
  - Additionally, linking the **PM Gati Shakti initiative with shipbuilding** can boost demand for **cargo vessels, passenger ferries, and coastal transport ships**.
- **Integrating Shipbuilding with Renewable Energy and Green Shipping:** To align with India's **Net Zero 2070 goals**, the shipbuilding sector must transition to **low-emission, green hydrogen-powered, and electric vessels**.
  - The **National Green Hydrogen Mission** can be integrated with shipbuilding to develop **hydrogen-powered ships and fueling infrastructure**.
  - Additionally, **PLI schemes for battery storage and electric mobility** can be extended to promote electric-powered inland and coastal vessels, reducing reliance on diesel-powered ships.
- **Maritime Cluster for Research, Innovation, and Skill Development:** The lack of **high-end R&D and industry-academia collaboration** has slowed India's innovation in advanced shipbuilding technologies.
  - A **National Maritime Innovation Hub** should be set up under **Maritime India Vision 2030**, encouraging startups, defense R&D, and private shipbuilders to collaborate on **smart ships, AI-based navigation, and modular ship design**.
  - Integrating the **Skill India program with shipbuilding training institutes** can also ensure a steady supply of skilled workers for the industry.
- **Financial Assistance and Incentives for Private Shipyards:** Currently, only a few **government shipyards receive major defense and commercial ship orders**, leaving private players underutilized.
  - Expanding the **Shipbuilding Financial Assistance Policy (SFAS) beyond 2026** and simplifying its approval process can encourage private investments.
  - The [Viability Gap Funding \(VGF\) scheme](#) can also be extended to provide **initial capital subsidies** for setting up new shipyards and upgrading existing ones.
- **Strengthening India's Position in Global Shipbuilding Supply Chains:** India must **leverage [Free Trade Agreements \(FTAs\)](#) with ASEAN and the US** to become an export hub for ships and maritime equipment.
  - Establishing **co-production agreements with leading global shipbuilders like Hyundai, Mitsubishi, and Daewoo** can help India acquire advanced shipbuilding technology.
- **Reducing Bureaucratic Delays and Improving Ease of Doing Business:** The **shipbuilding approval process in India is complex**, involving multiple ministries and regulatory bodies.
  - Establishing a **Single-Window Clearance System** for shipbuilding approvals can **reduce delays, simplify tax structures, and streamline licensing**.
  - Additionally, **harmonizing tax incentives across states** will attract investments and prevent policy inconsistencies that discourage private participation.



## Conclusion:

India's shipbuilding sector holds immense potential for **economic growth, maritime security, and global supply chain integration**, but structural challenges like high capital costs, outdated infrastructure, and heavy reliance on imports hinder progress. While initiatives like the Maritime Development Fund and infrastructure status for vessels are positive steps, stronger policy interventions, domestic manufacturing incentives, and financing support are crucial.

### **Drishti Mains Question:**

Despite its strategic location and growing trade, India's shipping sector remains underdeveloped, impacting its global competitiveness. Analyze the key structural challenges and suggest policy measures for its revival.

## UPSC Civil Services Examination, Previous Year's Question (PYQs)

### **Prelims**

**Q. Consider the following in respect of Indian Ocean Naval Symposium (IONS): (2017)**

1. Inaugural IONS was held in India in 2015 under the chairmanship of the Indian Navy.
2. IONS is a voluntary initiative that seeks to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region.

**Which of the above statements is/are correct?**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Ans: (b)**

**Q. With reference to 'Indian Ocean Rim Association for Regional Cooperation (IOR-ARC)', consider the following statements: (2015)**

1. It was established very recently in response to incidents of piracy and accidents of oil spills.
2. It is an alliance meant for maritime security only.

**Which of the statements given above is/ are correct?**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Ans: (d)**

**Q. Southeast Asia has captivated the attention of the global community over space and time as a geostrategically significant region. Which among the following is the most convincing explanation for this global perspective? (2011)**

- (a) It was the hot theatre during the Second World War
- (b) Its location between the Asian powers of China and India
- (c) It was the arena of superpower confrontation during the Cold War period
- (d) Its location between the Pacific and Indian oceans and its preeminent maritime character

**Ans: (d)**

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