



Maritime India – Empowering Progress

Directorate General of Shipping

02nd April 2026 | Mumbai, India

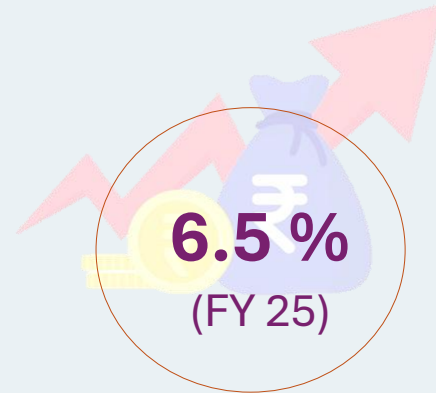


India's Economic Growth and the Significance of Maritime Domain



Indian GDP

World's 4th largest economy



GDP Growth

projected 6.3–6.7% annual growth through coming years



GDP Target

IMF projects India will surpass Germany by 2028, becoming the world's 3rd largest economy

The Maritime sector facilitates



95%

Trade by Volume

70%

Trade by Value



Maritime sector contributes to 4-5% of the GDP



Global Competitiveness



2

Indian Ports in Global top 30 Ports (Mundra & Visakhapatnam), 2023

(No Indian Port in Top 30 in 2015)

0.9 days

TAT ahead of many leading maritime nations (JNPA), 2022

(4 days in 2015)

Top 3

In trained manpower, 2025 with >3.2 Lakh Indian Seafarers

(1.2 lakh Seafarers in 2014)

2nd

Rank in global ship recycling, 2024

(3rd rank in 2017)

16th

Largest ship building sector globally with rapid capability expansion, 2024

(23rd Rank in 2016)

41st

Rank in World Competitiveness Index, 2025

(71st Rank in FY 2015)

14th

Rank in Liner Shipping Connectivity Index, 2024

(30th Rank in 2014)

38th

Rank in Logistics Performance Index, 2023

(54th Rank in 2014)



Contribution of the Blue Economy



Towards Viksit Bharat 2047

India and its Blue Economy

95%

By trade volume

70%

By trade value

India's Infrastructure Leverages

12

Major Ports

200+

Non-major Ports

11,098 km

Total length of India's coastline

India's Vessel Advantage



India has 1,520+ merchant vessels with 13 mn+ GT capacity



India ranks 18th globally in flag registration and 19th globally in carrying capacity

India is emerging as the leader of the Blue Economy in the world with multiple initiatives focusing on infrastructure, business and the overall economy

Port-led Development

Ports for Prosperity

Policy reforms driving EoDB, modern infrastructure and multi-modal logistics



India's Vision for the Maritime Sector



MARITIME INDIA VISION 2030

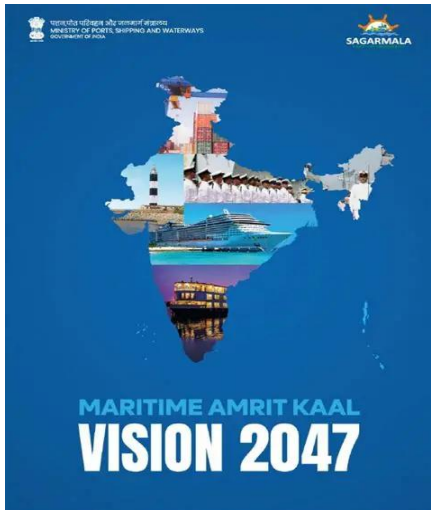


Maritime India Vision (MIV) 2030

- Position India Globally in the Top 10 Shipbuilding, repair nations (from 30k GT to 500k + GT).
- Renewable Energy Share at Major Ports : >60%
- Promote Waste to Wealth through ship recycling. India from #2 to #1 ship recycling nation.
- Encourage green belt development (plantations) : Atleast 33% of port area
- Investment: INR 20,000+ Crores
- Employment Generation: 1,00,000+ additional jobs (direct and indirect)

Maritime Amrit Kaal Vision 2047

- Advanced phase targeting Top 5 global position in shipbuilding and maintaining 1 position in ship recycling
- Carbon neutral ports (green fuel, electrification, SPS). $\geq 60\%$ renewable-energy share, create hydrogen hubs, emission & resource monitoring toolkits for ports.
- Promote Alternate/ Green Fuels, Bunkering infrastructure, green framework for terminal operations, introduce incentives in port duties for low emission vessels .
- 300+ Strategic Initiatives across 11 key maritime areas
- Financial Assistance: 20-30% assistance for green vessels (including retrofitting)





Mercantile Marine Legislation

5 New Acts 2025



Progressive policies and modernized regulations create an enabling environment for investment, ease of doing business, and global competitiveness.

Merchant Shipping Act, 2025 – Modernizes maritime regulations by broadening the definition of vessels, easing ownership norms, and aligning India’s shipping framework with global standards, thereby strengthening maritime capabilities.

Indian Ports Act, 2025 – Replaces the century-old 1908 Act, introducing a modern regulatory framework for port operations, management, and environmental safeguards. It ensures tariff transparency and mandates pollution control and disaster management plans at ports.

Coastal Shipping Act, 2025 – Enhances the role of coastal and inland shipping, promoting efficient use of waterways as a sustainable, cost-effective transport mode that reduces logistics costs and congestion.

Bill of Ladings Act, 2025 – Establishes a modern legal framework for electronic and physical bills of lading, enhancing transparency, traceability, and security in maritime trade documentation.

Carriage of Goods by Sea Act, 2025 – Updates liability and carriage rules to align with international conventions, ensuring fair, efficient, and standardized practices for transporting goods by sea.



**The Merchant Shipping Act 2025 &
Coastal Shipping Act into force wef.
March 15, 2026**



Two Pillars of Maritime Transformation



Technology & Sustainability

Technology Integration - Digital Platforms

1. Flagship platforms: e-Samudra, SAGAR SETU, Maritime Single Window (MSW).
2. e-Samudra integrates 60+ maritime services (MTO registration, shipbuilding aid).
3. AI-powered exams & simulations for seafarer training.
4. Real-time vessel/cargo monitoring via Command & Control Centre.
5. Digital Centre of Excellence (DCoE) promotes AI, IoT, blockchain.
6. Reduced cargo dwell time; enhanced port efficiency.
7. Swachh Sagar Portal







Sustainability Initiatives - Green Shipping Agenda

1. Targets: 500 GW non-fossil energy (2030), 1 billion-ton carbon cut, net-zero by 2070.
2. Policies encourage LNG, green hydrogen, biofuel vessels.
3. Mandates shore power, waste, and renewable port integration.










Sustainability Initiatives - Key Programmes

1. Harit Sagar Guidelines support 100% renewable energy, AI/IoT logistics in ports.
2. Green Tug Transition: 50% hybrid/electric tugs by 2030.
3. Green hydrogen plant at Deendayal Port scaling to 10 MW; 5 million tonnes by 2030 goal.

INDIA'S MARITIME TECHNOLOGY TRANSFORMATION IN 2025

- 
CLOUD - NATIVE PLATFORMS
- 
ARTIFICIAL INTELLIGENCE
- 
BLOCKCHAINS
- 
MARITIME SINGLE WINDOW
- 
SIGNIFICANT REDUCTION IN CARGO DWELL TIMES
REAL TIME VESSEL TRACKING
- 
DIGITAL CENTER OF EXCELLENCE

INDIA'S MARITIME SUSTAINABILITY INITIATIVES

 500 GW NON-FOSSIL ENERGY BY 2025	 1 BILLION TONNE CARBON REDUCTION	 LNG GREEN HYDROGEN VESSEL
 100% RENEWABLE ENERGY PORTS	 GREEN TUGS TRANSITION PROGRAMME	 GREEN SHIPPING CORRIDORS
	 GREEN HYDROGEN	 GREEN SHIPPING CORRIDORS
 ₹ 25,000 CRORES MARITIME DEVELOPMENT FUND		

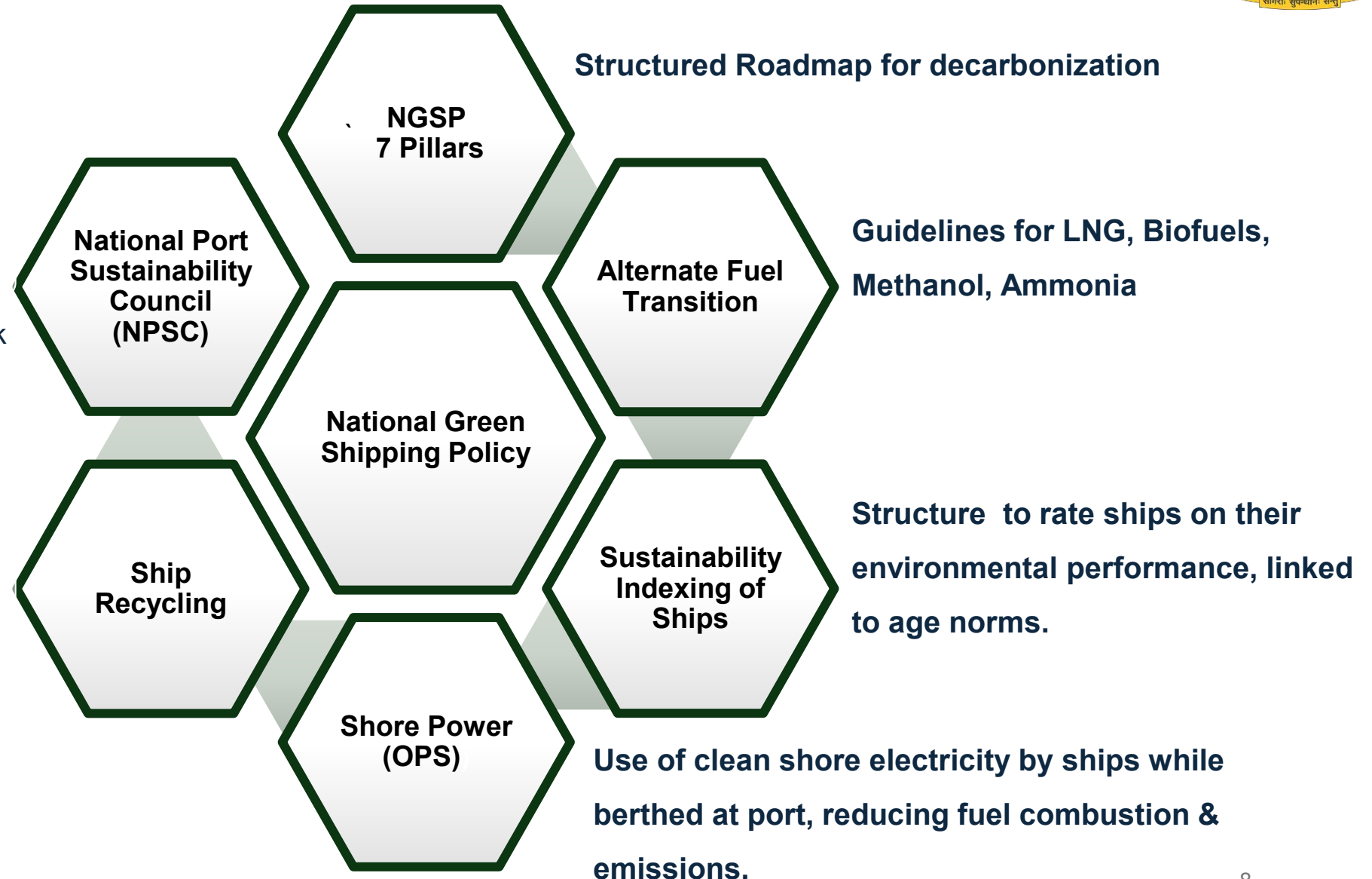


Green Shipping Initiatives



NPSC metrics include **Green Port Index (GPI)**, **Port Readiness Level (PRL)**, **Smart Port Shore Power Index (SPSPI)**, **Environmental Ship Index (ESI)**, and **GHG Emissions Inventory** to benchmark sustainability and readiness of Indian ports

With the Hong Kong Convention now in force, India leads globally with 115 compliant yards at Alang.





Maritime INDIA @ Net Zero

14 – 15 January 2026, India Habitat Centre (Hybrid)



Maritime INDIA @ Net Zero was jointly organised by the Directorate General of Shipping (DGS) and NCoEGPS at TERI as a **high-level multi-ministerial action plan and governance workshop** to translate the National Green Shipping Policy (NGSP) vision into **phased, implementation-ready national pathways** aligned with India's climate commitments.

Way Forward

- **Conduct focused stakeholder webinars** to validate priority actions and implementation sequencing
- **Undertake inter-ministerial consultations** to finalise roles, timelines and coordination mechanism
- **Final submission of consolidated roadmap and action matrix to NITI Aayog** for strategic guidance and national rollout



MARITIME INDIA
@NET ZERO



teri | THE ENERGY AND
RESOURCES INSTITUTE
Creating Innovative Solutions for a Sustainable Future



National Green Shipping Policy

Maritime Vision for a Green Future



The NGSP is India's strategic response to the global decarbonisation mandate, a policy blueprint designed to secure maritime growth while transitioning towards clean energy, sustainable ships and climate-resilient ports.

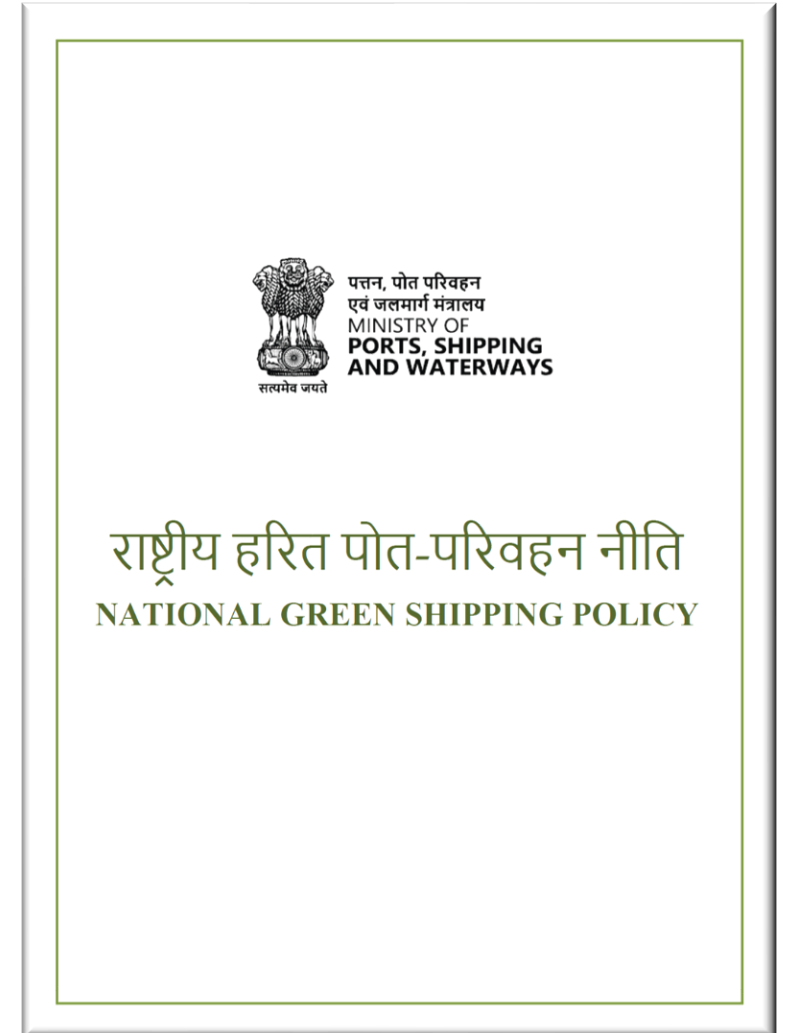
Key Transition Pillars:

- Green Ships
- Green Ports
- Green Fuels
- Green Capacity Building
- Green Recycling
- Green Finance
- Green Technology

Strategic Intent

To position India as a **global hub for green shipping and future fuels**, enabling industry to move from regulatory compliance to global competitiveness and leadership.

Maritime INDIA @ Net Zero workshop convened on
14- 15 January 2026



National Green Shipping Policy – The 7 Pillars

7 PILLARS TOWARDS A NET ZERO MARITIME INDIA



1 GREEN SHIPS

Lifecycle-based decarbonization of India's fleet through energy-efficient, fuel-flexible and low- to zero-emission vessels, supported by green ship certification and lifecycle emissions accounting.



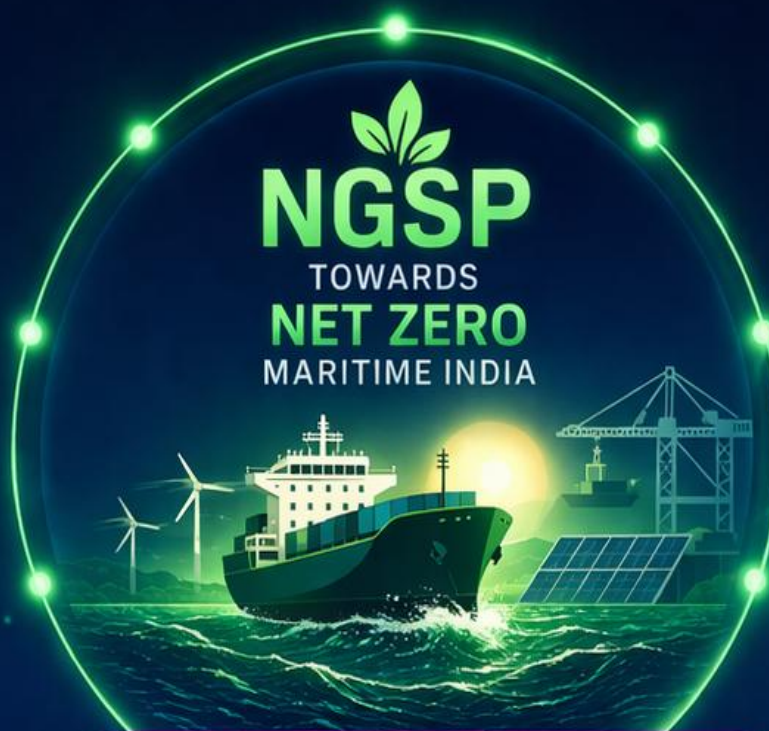
2 GREEN PORTS

Port-led decarbonisation by integrating clean energy, electrification and efficient operations, positioning Indian ports as competitive, low-carbon logistics gateways.



5 GREEN FINANCE

De-risking maritime decarbonisation by mobilising affordable, long-term capital through blended finance, risk-sharing instruments and ESG-aligned investment frameworks.



6 GREEN SKILL DEVELOPMENT & CAPACITY BUILDING

Preparing the maritime workforce and institutions for new fuels, technologies and regulatory requirements, ensuring a just, inclusive and execution-ready transition.



3 GREEN FUELS

A safe, phased and technology-neutral transition to alternative marine fuels, guided by lifecycle performance, bunkering safety and infrastructure readiness.



4 GREEN SHIP RECYCLING

Advancing safe, environmentally sound and circular ship recycling aligned with the Hong Kong Convention, strengthening worker safety, material recovery and digital transparency.

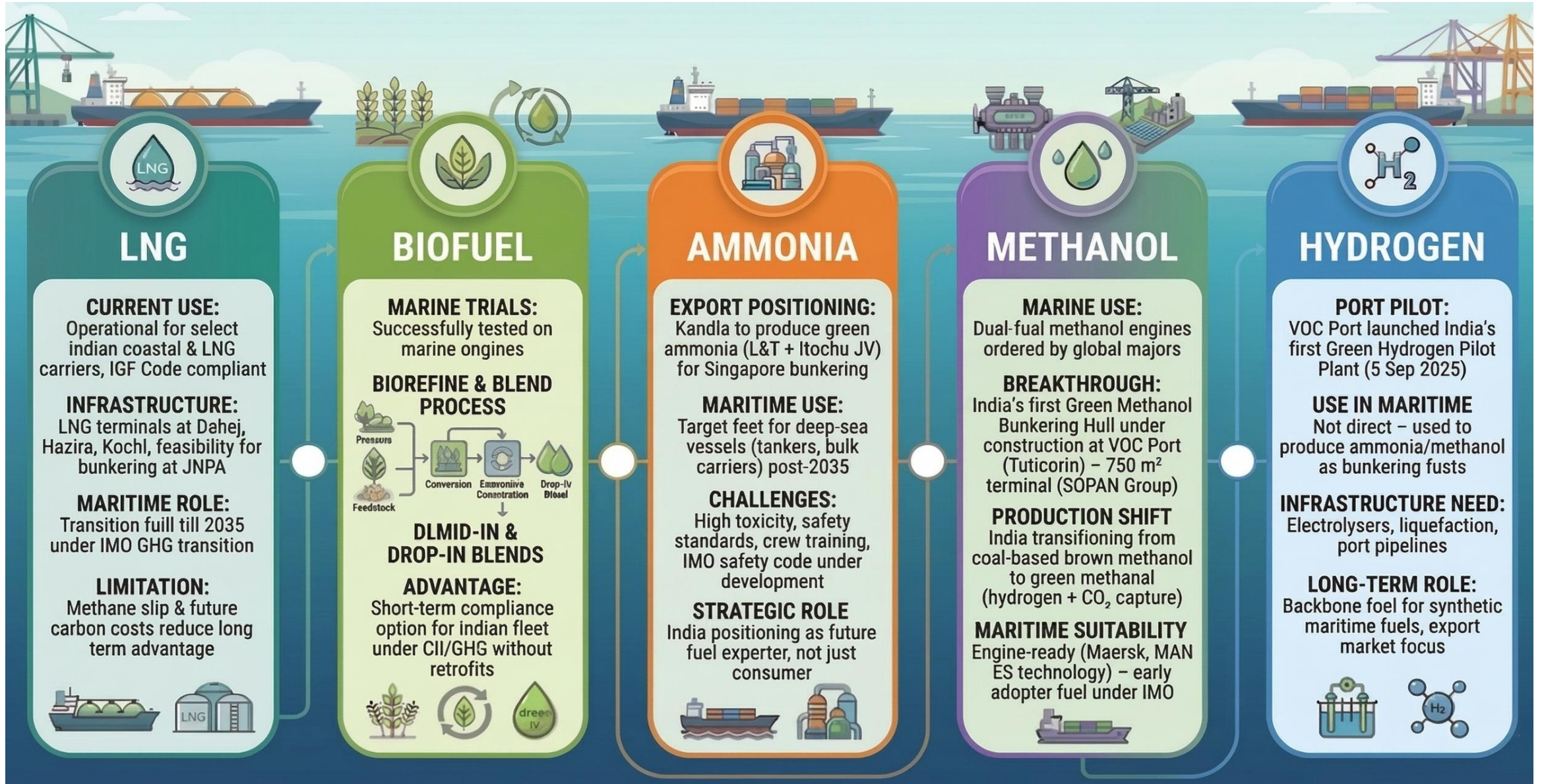


7 GREEN TECHNOLOGY & INNOVATION

Accelerating adoption and indigenisation of advanced maritime technologies through digitalisation, pilot projects and innovation sandboxes to enhance efficiency, safety and competitiveness.



Alternative Fuels for Maritime





India as a Net Green Energy Exporter & Bunkering Destination



From energy importer to future maritime fuel hub

Strategic Advantage

- Long coastline with major ports on **East–West shipping lanes**
- Abundant renewable energy for **green hydrogen, ammonia, methanol**
- Cost advantage in **solar + wind production**, lowering fuel export price

Fuel Export Readiness

- **Green Ammonia** : Kandla supply to Singapore (L&T–Itochu JV)
- **Green Methanol** : VOC Port bunkering hub under development
- **Hydrogen Derivatives** : Mission to export through maritime corridors

Port Infrastructure Transformation

- Dedicated **Green Bunkering Terminals** (VOC Port, Kandla, JNPA)
- Upcoming **Green Shipping Corridors**: Tuticorin – Kandla – Singapore – Rotterdam
- Integration of **renewable power, storage & safety systems**

Economic & Diplomatic Impact

- Reduces dependency on oil imports
- Positions India as **fuel supplier to global shipping lines**
- Enhances maritime influence under **Global South leadership**

Policy Backing

- Supported by **National Green Hydrogen Mission & NGSP**
- Incentivized by **Harit Sagar & MIV 2030**
- Aligned with **Make in India & Energy Security Vision 2047**

India is not just preparing for Green Fuels — it is preparing to Fuel The World.



IMO – DNV Study on Alternative Maritime Fuels



What the Study Examines

- Joint analytical study by **DNV in collaboration with IMO**, undertaken with **DGS and MoPSW**
- Assesses **potential demand, pricing and competitiveness** of alternative marine fuels in India
- Uses **vessel traffic data, route analysis and port-call patterns** to assess realistic bunkering behaviour
- Evaluates alternative fuels through a **delivered-cost and total-voyage-cost lens**, not fuel availability alone
- Anchored in **India's port ecosystem**, rather than theoretical diversion of passing traffic

Why the Findings Matter for India

- Confirms that **credible near-term demand lies with cargo-calling vessels**, not passing traffic
- Identifies **container shipping** as the most predictable and scalable early adopter segment
- Shows that **price competitiveness, operational reliability and approval clarity** determine bunkering decisions
- Highlights India's opportunity to build **clustered, multi-port bunkering hubs**, rather than isolated pilots
- Provides an evidence base to prioritise **ports, fuels and pilots** under *upcoming NGSP and Maritime INDIA @ Net Zero*



Collaboration with DMA & Mærsk Mc-Kinney Møller Centre for Zero Carbon Shipping



India Green Shipping Corridors – Pre-Feasibility Study

What the Study Examines

- Identification & ranking of **potential Green Shipping Corridors in India**
- Assessment of:
 - **Alternative fuel availability & supply chains**
 - **Port readiness & bunkering infrastructure**
 - **Cargo flows & vessel characteristics**
 - **Regulatory ecosystem & transition pathways**
- Based on **data-driven analysis and stakeholder consultations**

Strategic Benefits for India

- Enables **early-stage deployment of green fuels & technologies**
- Supports development of **domestic green fuel supply chains**
- Positions India as a **key hub on global green shipping routes**
- Drives **investment, innovation and new business models**
- Provides a **clear pathway from pilot → scale-up of decarbonisation**



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Green Ports

Driving Sustainable Maritime Growth

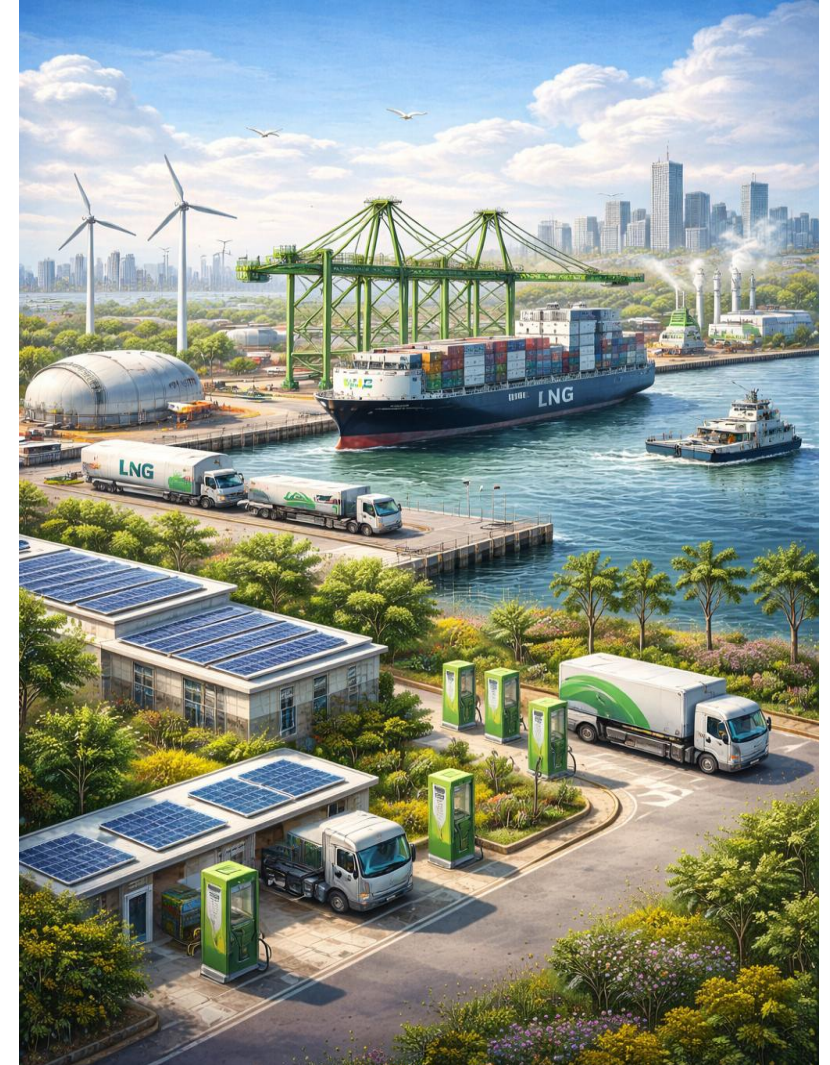


Concept of Green Ports

- Ports designed & operated with minimal environmental impact.
- Integration of clean energy, efficiency, and circular economy practices.

Key Initiatives in India

- Harit Sagar Guidelines (2023): National framework for green port development.
- Proposed National Port Sustainability Council (NPSC): Metrics for emissions, energy, waste, and community impact.
- Onshore Power Supply (OPS): Cut ship emissions at berth by connecting to shore electricity.
- Waste & Plastics Management: Port reception facilities for MARPOL Annex V compliance.





Sustainable Indicators for Indian Ports



Green Port Index (GPI)

Evaluates ports based on carbon footprint, alternative fuels adoption, energy efficiency, sustainable logistics, and waste management practices.



Port Readiness Level (PRL)

Assesses ports' preparedness for energy transition, digitalization, and compliance with global environmental regulations.



Shore Power Readiness Indicator (SPRI)

Measures infrastructure for cold ironing and renewable energy integration to reduce emissions from berthed ships.

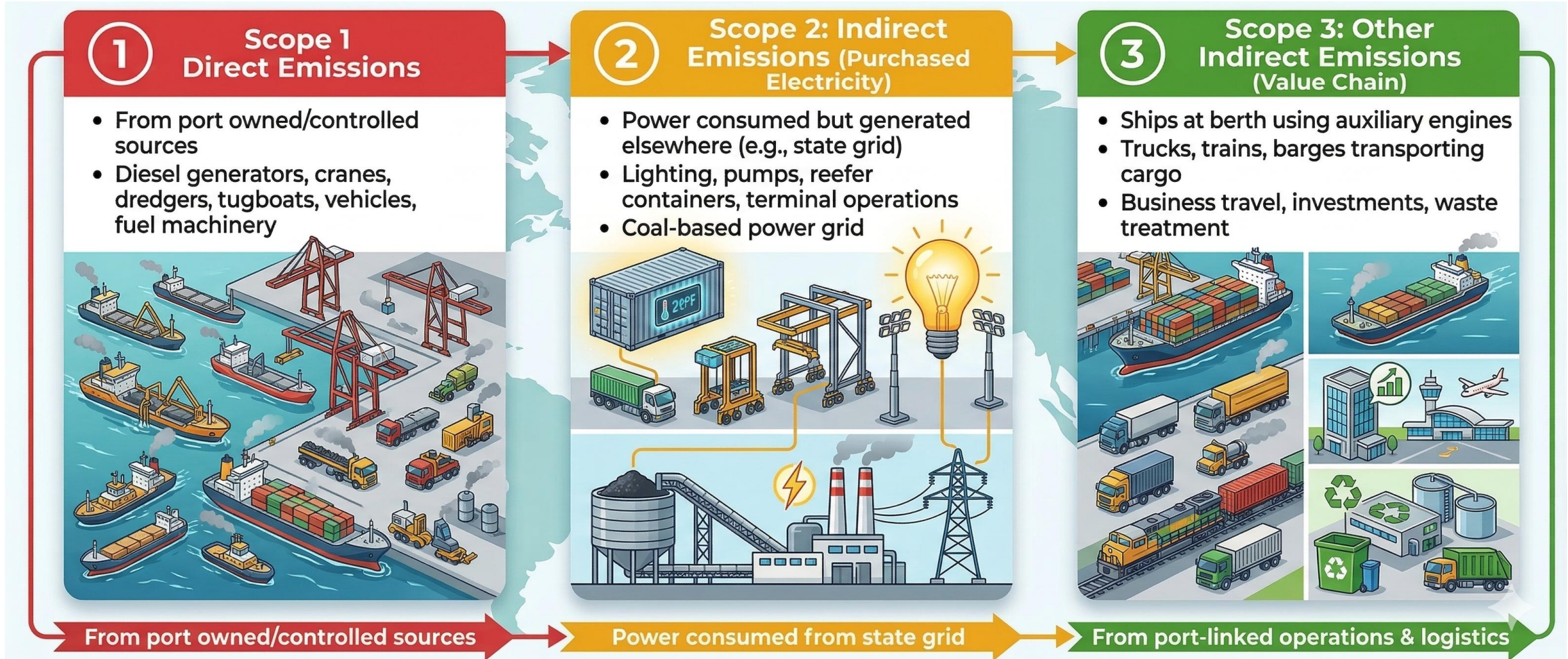


Environmental Ship Index (ESI)

Incentivizes ship operators to reduce emissions through a rating system that evaluates NO_x, SO_x, and CO₂ emissions.

These indicators create a robust framework to measure and enhance the environmental performance of Indian ports. By institutionalizing them, India positions itself as a global frontrunner in green maritime logistics & unlocks access to international green shipping corridors and drive long-term net-zero ambitions.

GHG Emission Scope at Ports





National Port Sustainability Council (NPSC)



Proposed Framework

• Institutional Framework for Port Sustainability in India

- The **National Port Sustainability Council (NPSC)** is a proposed institutional mechanism under the **Ministry of Ports, Shipping and Waterways (MoPSW)** to provide a structured approach for advancing sustainability across Indian ports.
- The Council will serve as the **national platform for coordinating environmental performance monitoring, sustainability benchmarking and energy transition initiatives across major and non-major ports.**

Key Functions of NPSC

- **Standardization of Sustainability Indicators** across Indian ports
- **Monitoring and Reporting of Port Emissions** including GHG inventory development
- **Benchmarking Environmental Performance** through sustainability indexing frameworks
- **Supporting Energy Transition Initiatives** such as shore power and alternative fuels
- **Alignment with Global Green Port Frameworks** and international sustainability standards



Harit Sagar – Green Port Guidelines



Vision

To reduce carbon intensity and develop an environment-friendly ecosystem at Major Ports through green technologies, optimization of port procedures and decarbonization benchmarks aligned with India’s Panchamrit commitments.

Core Principles

- Sustainability in Port Development & Operations
- Adoption of carbon-neutral & environment-friendly technologies
- Working with Nature approach
- Maximizing use of Clean / Green energy in Port operation
- Eliminate–Reduce–Control (ERC) for emissions
- 5R Concept (Refuse, Reduce, Reuse, Repurpose, Recycle)
- monitoring, based on Environmental Performance Indicators

Sr. No.	Environment Performance Indicator (EPI)	Target by 2030	Target by 2047
1	% share of Renewable Energy consumption	>60%	>90%
2	% Port equipment / vehicles electrified	>50%	>90%
3	% Area under green belt	>20%	>33%
4	% Reduction in CO ₂ emission per ton of cargo (Base Year 2023)	>30%	>70%
5	% GHG emission reduction in all coastal / EXIM vessels	>10%	>50%
6	% Reduction in fresh-water consumption per ton of cargo (Base Year 2023)	>20%	—
7	% Recycle and reuse of consumed water	>100%	—
8	% Reduction in energy consumption per ton of cargo (Baseline Year 2023)	>20%	—
9	One 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	—



Green Tug Transition Program (GTTP)



- Initiative of **MoPSW** for transition of harbour tugs to green propulsion
- Targets **progressive replacement of diesel-powered tugs**
- Applicable to **~400 harbour tugs** operating across Indian ports
- Implemented through **Approved Standard Tug Designs & Specifications (ASTDS-GTTP)**
- Initial focus on **battery-electric tugs**, with provision for **hybrid, methanol and hydrogen**

Phased Implementation Framework

Phase 1 (2024–27)

- Induction of **battery-electric green tugs** at Major Ports
- Deployment based on **ASTDS-GTTP**

Phase 2–3 (2028–33)

- **30%–60%** of operational tug fleet to be ASTDS-GTTP compliant
- Introduction of **alternate fuels and hybrid technologies**

Phase 4–5 (2034–40)

- **100% transition** of harbour tugs at Major Ports
- Nationwide adoption aligned with **vessel life / charter cycles**

What is Shore Power?

Electricity supplied from the shore to berthed ships, allowing engines to be switched off and eliminating fuel combustion while docked.

Why It Matters

- Cuts **CO₂, NO_x, SO_x and Particulate Matter** emissions in port zones
- Improves **Air Quality and ESG scores** for Indian ports
- Supports compliance with **IMO CII, GHG & Green Port Index**

Implementation Status in Indian Ports

- **Kamarajar Port** - 500 kW, 400V, 50-60 Hz in Coal Berth 1 & 2
- **VO Chidambaranar Port** - 305 kW, 400V 60Hz in VOC Berth 2 & 3
- **Jawaharlal Nehru Port Authority** - SPS used for Tugs. SPS for all terminals planned (45MVA; INR 600 crore expected)
- **Paradip Port** - Newly commissioned. Delivered full load power to MV APJ Indrani at CB1 Berth.



Possible Financing options

Blended finance → govt + MDBs + private capital.

Green/blue bonds → specifically earmarked for OPS infra.

PPP models → private players co-invest in OPS roll-out.






Just Transition in Maritime



Just Transition: Putting People at the Core of Decarbonisation

Decarbonisation is not only a fuel shift. It is a workforce shift.

 ~3.23 lakh Indian seafarers (as of 2025) – ~12% of global maritime workforce

-  Alternative fuels introduce new safety risks
-  New technologies demand new competencies
-  Transition must protect jobs, safety and dignity



Skills & Training

- Large-scale upskilling for green fuels
- Modernised STCW standards
- Investment in maritime training infrastructure



Safety & Standards

- Health-and-safety-first approach
- Handling ammonia, hydrogen, low-flashpoint fuels
- Alignment with MLC 2006 & global labour norms



Equity & Inclusion

- Avoid widening global skills gaps
- Support developing maritime nations
- Promote diversity & gender inclusion

A green transition must also be a fair transition.



Swachh Sagar Portal



A national digital system enabling end-to-end traceability of maritime waste, fuels and environmental compliance under MARPOL and green-port frameworks.

Port Reception Facility



- Module for vessel waste declaration, vendor linkage and disposal coordination.

Fuel Consumption Reporting



- Enables MARPOL Annex VI fuel consumption reporting for vessels.

Single Use Plastics



- Enables ships to report plastic usage and disposal via SEP plans, ensuring compliance with National sustainability mandates.

E-BDN & Bunker Suppliers



- Central database of approved bunker suppliers with electronic BDN records for transparency and fuel quality assurance.

Ballast Water Reporting



- Real time Ballast Water data submission by all ships and compliance oversight.



Integrated Vessel Traffic Management System (iVTMS)



Enhancing Navigational Safety, Efficiency and Environmental Governance

Regulatory Framework

Implemented in accordance with **Chapter V of SOLAS**

Compliant with relevant **IMO Guidelines & Circulars**

Ensures standardized vessel traffic monitoring and navigational safety

Coverage & Deployment

Implemented across **All Major Ports in India**

Additionally operated by **Directorate General of Lighthouses and Lightships (DGLL)** at **Gulf of Kutch**

Integrated surveillance for high-density and sensitive maritime zones

Developed by **IIT Madras – (NTCPWC)**

Integrates:

AIS

Radar

VHF

Meteorological & oceanographic data

CCTV surveillance

Centralized command and control platform for real-time situational awareness.

Strategic Significance

- Collision avoidance & Channel traffic regulation
- Emergency response coordination
- Optimized vessel sequencing
- Reduced congestion in port approaches
- Enables Just-in-Time arrival
- Supports speed optimization & Reduces anchorage emissions
- Improves incident-based environmental response



Just-in-Time & Digital Twin for Ports



Just-in-Time (JIT) Arrival

Objective:

Synchronize vessel speed with berth readiness to eliminate anchorage waiting.

Enables:

- Reduced fuel consumption at sea
- Lower port congestion
- Improved berth utilization
- Reduced emissions from idling vessels

Impact:

Speed optimization = Immediate CO₂ reduction

Integrated Operational Data Layer

Digital twins require:

- Real-time AIS, weather and berth data
- Terminal equipment data (cranes, yard, gates)
- Pilotage & tug scheduling inputs
- Hinterland (rail/truck) visibility
- As highlighted in Neugebauer et al., digital twins require **bi-directional real-time data exchange between physical and digital systems**

Reference : Digital Twins in the Context of Seaports and Terminal Facilities - Springer

Digital Twin of the Port

A virtual representation of the physical port, continuously updated through automated data exchange

Capabilities:

- Berth allocation simulation
- Crane scheduling optimization
- Yard congestion prediction
- Emission modelling
- Scenario testing (storm, delay, peak traffic)

Digital twins must provide:

- Situational awareness
- Intelligent decision support
- Multi-stakeholder coordination

This transforms port management from reactive to predictive.



Digital Twin at VOCPA Tuticorin



Prestigious Digital Twin System commissioned in record 6 months

Cost: ₹24.62 Crore

Executed by: IPRCL

Inaugurated by Hon'ble Minister of MoPSW Shri Sarbananda Sonowal (23 Feb 2026)

Salient Features

Complete 3D Port Visualization

The entire port ecosystem is displayed in real-time 3D on a holographic table, enabling intuitive and immersive operational oversight.

Integrated CCTV Surveillance (~400 Cameras)

Nearly 400 CCTV cameras are mapped to their exact physical locations, allowing centralized and location-specific monitoring of port activities.

VTMS Integration – Real-Time Vessel Intelligence

The Vessel Traffic Management System is fully integrated. With a single click on a vessel image, movement details and cargo information are instantly accessible.

Integrated Weather Monitoring

Live weather systems are embedded into the platform, enabling proactive monitoring of rainfall, cyclones and other atmospheric disturbances.

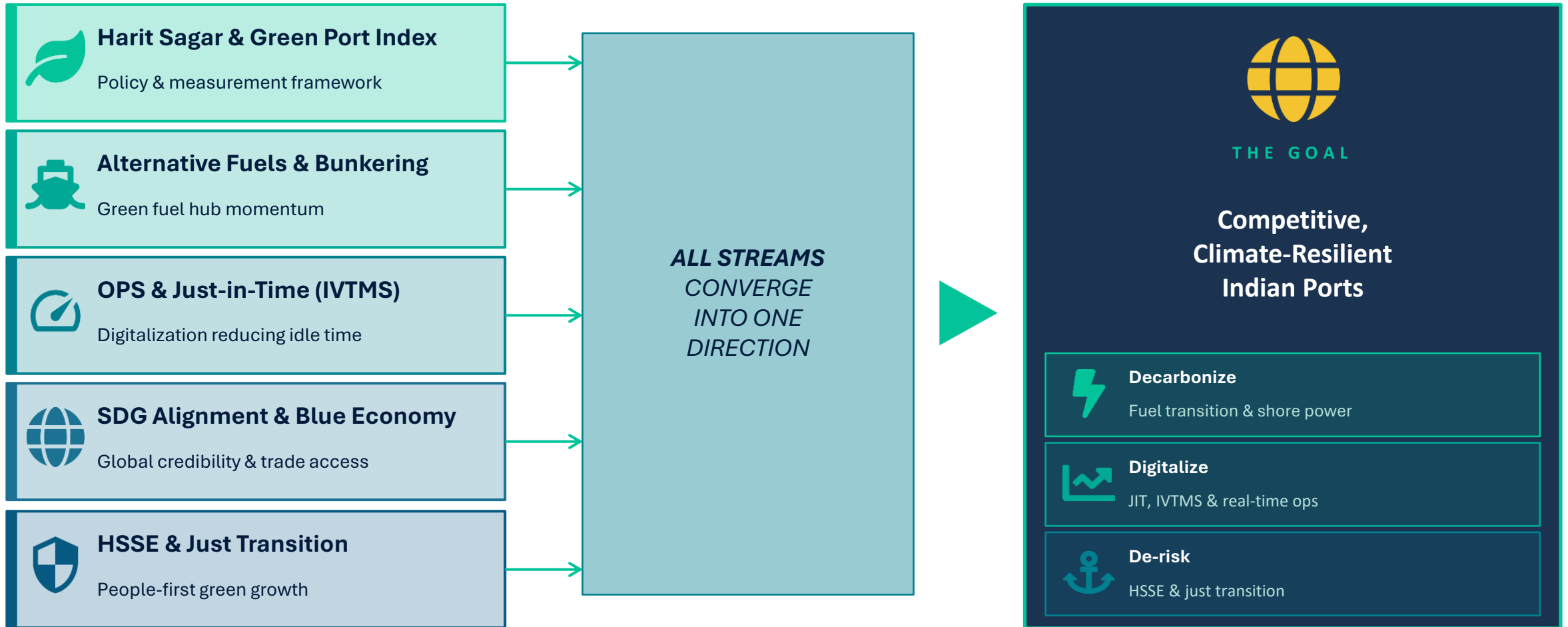




Sustainability × Efficiency



Sustainability is no longer a cost or compliance burden; when paired with operational efficiency, it becomes a competitive advantage and strategic imperative for Indian ports.



Indian ports do not have to choose between being green and being efficient, the future belongs to those who make them the same 29



Ship Recycling



- Process of dismantling end-of-life ships to recover **steel and other valuable materials**.
- India is a **global leader**, with Alang–Sosiya in Gujarat being the **world's largest ship recycling cluster**.
- Governed internationally by the **Hong Kong Convention (HKC)**, which came into force on **26 June 2025**.
- Integral to the **circular economy**, reducing the demand for virgin raw materials.

India's Role & Importance

- Handles **30% - 35% of global ship recycling tonnage** annually.
- Provides **20 - 25% of India's ferrous scrap requirement**, reducing dependence on imports.
- India is the **only country with 100+ HKC Compliant Recycling Yards**.
[115 HKC Compliant Yards at Alang]
- Supplies input material for the **Green Steel ecosystem**, boosting India's low-carbon transition.
- Generates **direct employment for 15000+ workers** and **indirect livelihood opportunities** for thousands more in logistics, scrap processing, and allied services.
- Strengthens India's position in **global maritime sustainability**.





ISO Compliance



Strengthening India's Global Credibility

Enforcing ISO management systems ensures ship recycling operations at Alang are **system-driven, auditable and internationally benchmarked**, complementing HKC compliance and supporting EUSRRC recognition.

Key ISO Standards for Ship Recycling Yards

ISO 9001 – Quality Management: Streamlined processes, documentation and continual improvement.

ISO 14001 – Environmental Management: Pollution control, waste handling and eco-monitoring.

ISO 30000 – Ship Recycling Management: Integrates HKC principles for safe and compliant recycling.

ISO 45001 – Occupational Health & Safety: Worker safety, risk control and preventive culture.

Impact of Enforcement

- Builds **credibility and transparency** in global markets.
- Enhances **environmental, health and safety performance**.
- Improves **audit readiness** for IMO and EU inspections.
- Positions **Alang as a benchmark for responsible recycling**.



ISO 9001
Quality Management System (QMS)



ISO 14001
Environmental Management System (EMS)



ISO 30000
Ship Recycling Management System (RSMS)



ISO 45001
Occupational Health & Safety Management System (OHSMS)



Ferrous Scrap Development Fund



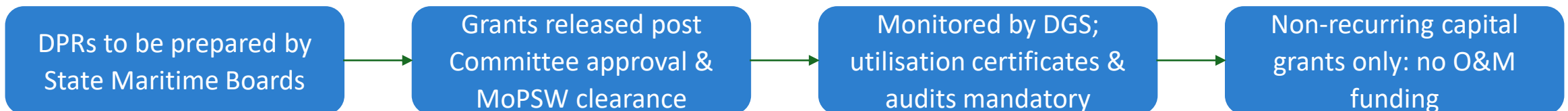
A central fund managed by the **Ship Breaking Scrap Committee** under the Ministry of Shipping, aimed at driving **safe, sustainable, and welfare-linked ship recycling**.

It supports both Central and State-level interventions, primarily focused on yard infrastructure, worker welfare, environmental safety, and skilling.

Purpose of the Fund

- Channel ship recycling-linked revenue into **visible welfare outcomes**
- Supplement State Maritime Boards efforts in developing Ship Recycling cluster
- Improve overall **eco-system quality** around ship recycling operations

How it Works:



Focus Areas:

Yard Infrastructure Upgradation (capital expenditure only)	Welfare Projects Worker housing, sanitation, trauma & medical response units, fire safety
Skill Development Structured training, certification, and capacity building	Environmental Infrastructure ETPs, incinerators, hazardous waste yards
Community & Social Facilities Crèches, canteens, rest zones, gender-focused spaces	Secondary Steel Sector Support (as approved)
Research & Consultancy Safety protocols, green practices, ESG studies	Other activities (as approved by the Committee)



Ship Recycling Portal



An upcoming unified national digital platform under DGS to implement the Hong Kong Convention (HKC) and Recycling of Ships Act (2019), ensuring real-time, transparent and accountable governance of India's ship recycling ecosystem.

Importance of Portal

- **Transparency** : Digitally traceable inspections, certifications & audits
- **Accountability** : Role-based actions with time-stamped compliance trails
- **Real-time Monitoring** : Central oversight by DGS & State Authorities
- **Global Credibility** : Auditable records for IMO, foreign Flag States & shipowners
- **Stakeholder Integration** : Connects DGS, GMB, ROs, yards, service suppliers

Core Functional Modules

- Yard Registration & Licensing
- **Inventory of Hazardous Materials Inventory**
- **RRC Certification Registry**
- SRP Submission & Approval
- **Inspection, Audit & ISO Compliance Tracking (ISO 9001, 14001, 30000, 45001)**
- Incident & Non-Conformity Reporting
- Worker Training & Competency Records
- GISIS / IMO Reporting Integration



Ship Recycling Credit Note



- Introduced under **Ship Building Financial Assistance Scheme 2.0 (SBFA 2.0)**
- Incentivizes ship owners to **recycle in India** and **build new ships in Indian shipyards**

How It Works

- When a vessel is recycled in a certified Indian yard, the ship owner receives a **Credit Note for 40% of scrap value.**
- The Credit Note remains valid until the owner builds a new vessel/ ship in an Indian shipyard
- Redeemed as **financial assistance/ subsidy** under SBFA 2.0

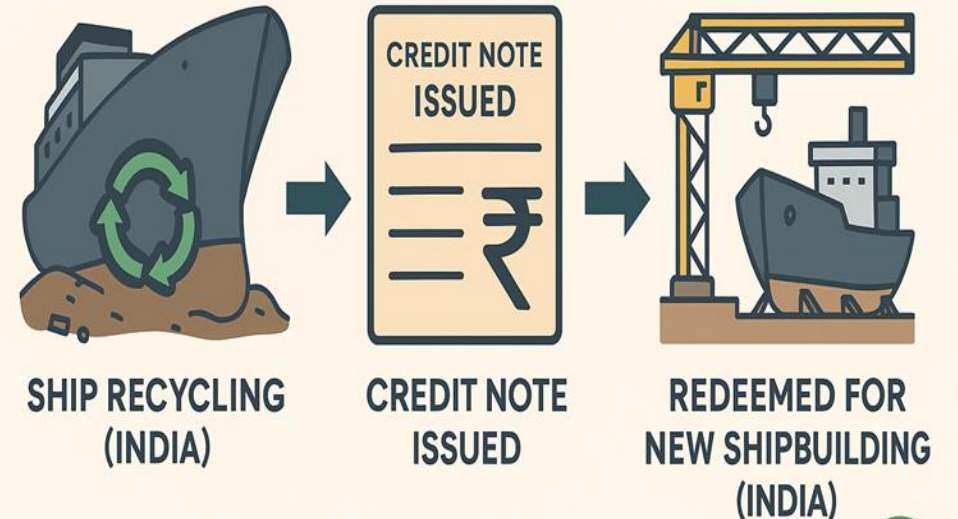
Expected Benefits

- Encourages **safe and HKC compliant ship recycling** in India
- Provides direct **business boost for Indian shipyards**
- Attracts **new players** to India's ship recycling and shipbuilding ecosystem
- Strengthens India's **circular economy** : recycling feeds into new shipbuilding
- Positions India as a leader in **Green and Sustainable Maritime Growth**

Allocation of : ₹ 4,001 crore
(under SBFA)

SHIP RECYCLING CREDIT NOTE

Linking Recycling with Shipbuilding



SHIP RECYCLING CREDIT NOTE





Green Steel



- “Green Steel” is defined by its CO₂ emission intensity — less than 2.2 tonnes CO₂ emission per tonne of finished steel (tfs).
- Greenness is expressed as a percentage reduction below the threshold of 2.2 2.2 tonnes CO₂ emission per tonne of finished steel
- The certification done via NISST (National Institute of Secondary Steel Technology) under the Bureau of Energy Efficiency (BEE) Measurement, Reporting and Verification (MRV) methodology.

Star Rating System

- Five-Star: < 1.6 tCO₂e/tfs 
- Four-Star: 1.6 – 2.0 tCO₂e/tfs 
- Three-Star: 2.0 – 2.2 tCO₂e/tfs 
- > 2.2 tCO₂e/tfs → Not eligible for green rating
(Threshold reviewed every 3 years)





India's Marine Plastic Pollution & Waste Discharge



A Growing Maritime Concern

- **India Among Top Global Contributors** to marine plastic leakage due to mismanaged coastal waste (~ **3.5 million tonnes of plastic waste**)
- Fishing nets, single-use plastics and microplastics persist in ocean ecosystems for decades

Maritime Impact

- **Navigational hazard** due to floating debris in shipping channels
- **Plastic ingestion and entanglement** harming marine species
- **Increased maintenance & dredging cost** at ports due to litter accumulation

IMO Global Action – RegLitter & Marine Plastic Initiatives

- Recognises ship-based & fishing-related waste
- **IMO RegLitter** initiative to regulate discharge of plastic and waste from ships (Asia Region Specific)
- Focus on fishing gear marking, port reception facilities & marine litter reporting

DGS as RegLitter National Focal Point

- DGS designated as **National Focal Point** to Participation in IMO working groups on **marine plastic regulation & garbage discharge (MARPOL Annex V)**
- Need for national maritime strategy on plastic waste under NGSP & Blue Economy policy

Way Forward for India

- Mandatory **Port Reception Facilities** for plastic & ghost nets
- Integration with **fisheries departments & coastal states**
- National monitoring protocol for **sea-based litter discharge**



Engineering Wing : IMO Led Projects



Asia, Caribbean, Latin America, Pacific and Africa.
Lead Partnering Countries: Brazil, Costa Rica, Côte d'Ivoire, India, Indonesia, Jamaica, Kenya, Madagascar, Nigeria and Vanuatu.

Partnering Countries: Argentina, Cabo Verde, Columbia, Ecuador, Gambia, Mozambique, Nicaragua, Panama, Peru, Philippines, Senegal, Sri Lanka, Solomon Islands, Sudan, United Republic of Tanzania, Thailand, Timor-Leste, Tonga, Tonga and Viet Nam.

GEOGRAPHIC FOCUS

TOTAL BUDGET NOK 40 million (about US\$ 4.5 million)

DONOR Norwegian Agency for Development Cooperation (Norad)

IMPLEMENTING PARTNERS The Food and Agriculture Organization (FAO)

PROJECT DURATION 2020 - June 2024

WEBSITE / CONTACT GloLitter@imo.org

Reducing sea-based marine plastic litter

0 REDUCED SEA-BASED MARINE PLASTIC LITTER
17 MEMBERS OF THE PROJECT
2 UN SUSTAINABLE DEVELOPMENT GOALS
5 MARINE PLASTIC LITTER
12 COUNTRIES PARTNERING
14 NEW VIEWS
8 INTERNATIONAL COOPERATION
1 PERSON

An IMO project under the Department of Partnerships & Projects (DPP)

THE ISSUE

It is estimated that about 20% of total marine plastics comes from sea-based sources such as fisheries, shipping, recreation, oil and gas industry, and others. Plastic litter has devastating effects on our oceans, marine life and human health. Reducing and preventing marine plastic litter is vital to safeguard coastal and global marine resources.

OUR SOLUTION

- Equip partner countries with knowledge and tools to initiate legal, policy and institutional reforms.
- Establish public-private partnerships through Global Industry Alliance (GIA) to demonstrate best marine plastic litter management solutions.
- Engage women in tackling marine plastic litter problems through a grants program.
- Facilitate regional and global partnerships between countries to have a greater impact.

IMPACT

- Partner countries are leading the change on national, regional, and global levels and enforcing international conventions and regulations on marine plastic litter.
- Private sector is increasingly committed to supporting marine plastic litter related initiatives.
- Marine plastic litter originating from the shipping and fisheries sectors is reduced.

IMO INTERNATIONAL MARITIME ORGANIZATION Food and Agriculture Organization of the United Nations

GloLitter :
Tackling Plastics and Marine Litter

GREEN VOYAGE 2050

GEOGRAPHIC FOCUS New Pilot Countries: Azerbaijan, Belize, Cook Islands, Ecuador, Kenya, Solomon Islands and Sri Lanka
Pioneer Pilot Countries: China, Georgia, India, Malaysia and South Africa

TOTAL BUDGET 7.15 Million USD

DONOR Norwegian Ministry of Climate and Environment

PROJECT DURATION 2019-2022

WEBSITE / CONTACT greenvoyage2050.imo.org
greenvoyage2050@imo.org

Supporting shipping's transition towards a low carbon future

0 REDUCED GHG EMISSIONS FROM SHIPPING
17 MEMBERS OF THE PROJECT
5 UN SUSTAINABLE DEVELOPMENT GOALS
14 NEW VIEWS
9 SECTOR SERVICES DEVELOPMENT
7 COUNTRIES OF INTEREST

An IMO project under the Department of Partnerships & Projects (DPP)

THE ISSUE

According to the Fourth IMO GHG Study 2020, CO₂ emissions from shipping account for approximately 2.89% of global anthropogenic emissions, and if left unchecked, could rise significantly in the future. In 2016, IMO adopted the Initial IMO Strategy on reduction of GHG emissions from ships confirming IMO's commitment to reducing GHG emissions from international shipping and, as a matter of urgency, to phasing them out as soon as possible.

OUR SOLUTION

Supporting effective implementation of the Initial IMO GHG Strategy and in particular, providing support to developing countries in their efforts to reduce GHG emissions from ships, through enhancing government and port management capacities to:

- Undertake legal and policy reforms to effectively implement MARPOL Annex VI.
- Develop National Action Plans (NAPs) to address GHG emissions from ships.
- Catalyze private sector partnerships.
- Deliver pilot demonstration projects to facilitate technology uptake.

IMPACT

- High level commitment secured from all participating countries to progress on activities in their tailored workplans.
- Development of global capacity-building tools and training material to support decarbonization efforts.
- Initial dialogue with IFI's and other strategic partners to support pilot project implementation and other outputs.
- Reestablishment of the Low Carbon GIA under GreenVoyage2050, a public-private partnership to support low carbon shipping.

IMO INTERNATIONAL MARITIME ORGANIZATION

Green Voyage 2050 :
Advancing IMO GHG Reduction Strategies



GloNoise :
Reducing Underwater Radiated Noise Pollution



Shipbuilding Scenario in India



**30,000
GT**

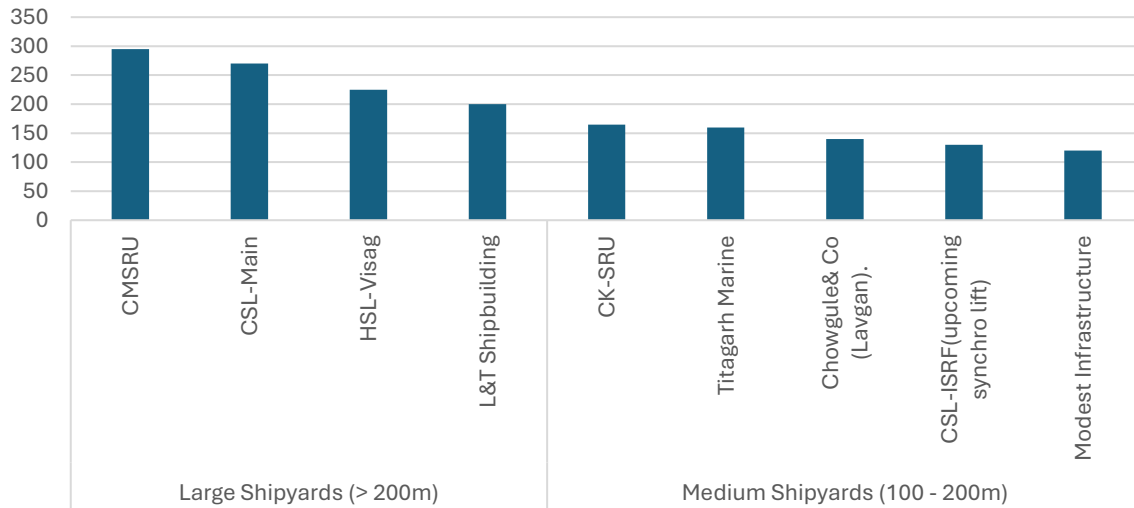
**Current Annual
Tonnage
Produced**

53*

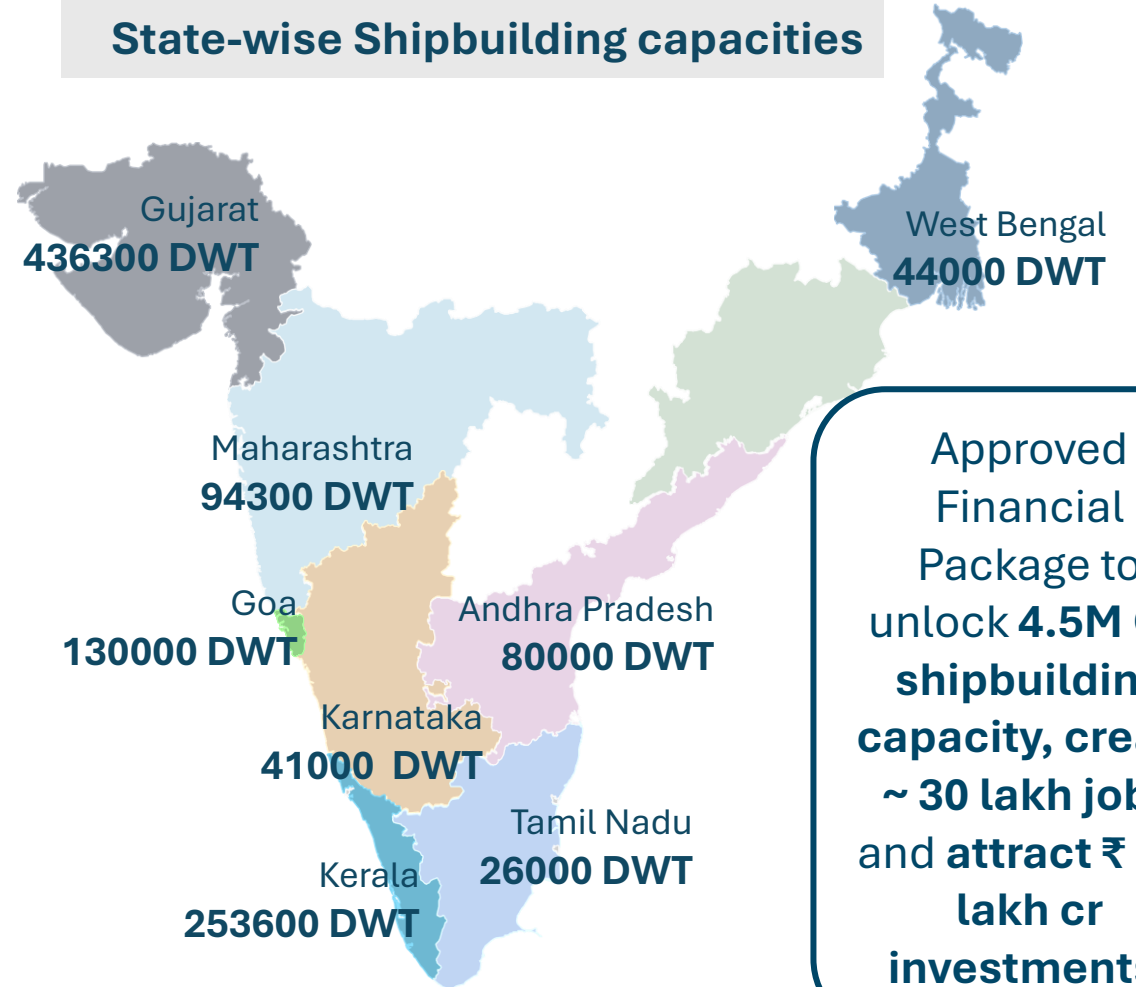
**Total Number of
Shipyards**

**Annual Report, MoPSW*

Shipyards with capacity based on Ship's length for docking



State-wise Shipbuilding capacities



Approved Financial Package to unlock **4.5M GT** shipbuilding capacity, create **~ 30 lakh jobs** and attract **₹ 4.5 lakh cr** investments.



Four Pillar Approach



Cabinet approves ₹ **69,725** crore Package to Revitalize India's Shipbuilding and Maritime Sector



Shipbuilding Financial Assistance scheme

Allocation: ₹24,736 crore

- Overcome cost differential vis-a-vis foreign shipyards.
- Credit note for new builds against ship scrapping in India
- Establish National Shipbuilding Mission



Maritime Development Fund

Allocation: ₹25,000 crore

- Enable long-term financing to maritime sector through equity & debt-based funding:
- Maritime Investment Fund
 - Interest Incentivization Fund
 - Credit Guarantee Fund



Shipbuilding Development Scheme (SbDS)

Allocation: ₹19,989 crore

- Greenfield cluster creation
- Brownfield capacity expansion to **4.5 million GT**
- Risk outlay for shipyards
- Setting up of India Ship Technology Centre (ISTC) as Apex body under IMU



Legal, Policy and Process Reforms

- Demand aggregation
- Large Ships as infrastructure
- Taxation issues
- Flagging reforms



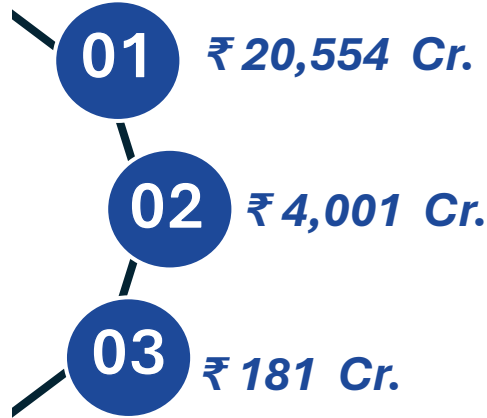
Shipbuilding Financial Assistance



₹ 24,736 Cr.



Shipbuilding Financial Assistance scheme



Extension of Shipbuilding financial assistance scheme

Shipbreaking credit note

Establishment of National Shipbuilding Mission

Shipbreaking credit note

40% of ship's scrap value to be issued to the ship-owner when the vessel is scrapped in an Indian yard. Credit note would be reimbursable against cost of construction of new vessel at an Indian shipyard.

Assistance Rate Structure



Non-specialized – Small Vessel

- Up to ₹100 crore → 15% of actual value

Non-specialized – Large Vessel

- First ₹100 crore → 15%
- Value above ₹100 crore → 20%

Specialized Vessel

- First ₹100 crore → 15%
- Value above ₹100 crore → 25%

Domestic Content Requirement

< 30% Domestic Content

- No SBFAS support

30% to < 40% Domestic Content

- Pro-rata support

≥ 40% Domestic Content

- Full support



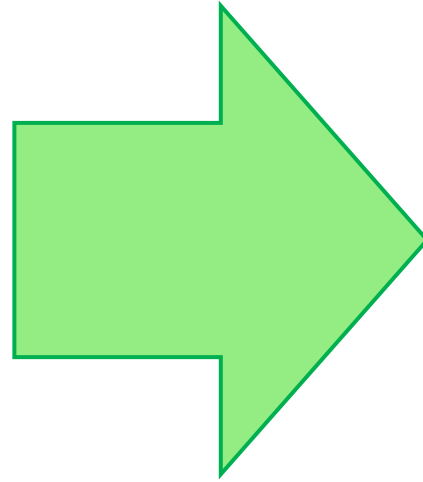


Provisions for Green Vessels as per SBFAP & SBFAS



SBFAP (2016-26)

- **30% Financial Assistance for vessels where main propulsion is powered by green fuels**, including: Methanol, Ammonia, Hydrogen fuel cells and Other approved alternative green fuels
- **20% Financial Assistance for vessels equipped with: Fully electric propulsion systems, or Hybrid propulsion systems** (electric + conventional fuel)
- Incentives aimed at accelerating adoption of **low-carbon and zero-emission technologies** in shipbuilding
- Encourages domestic shipyards and shipowners to invest in clean propulsion technologies

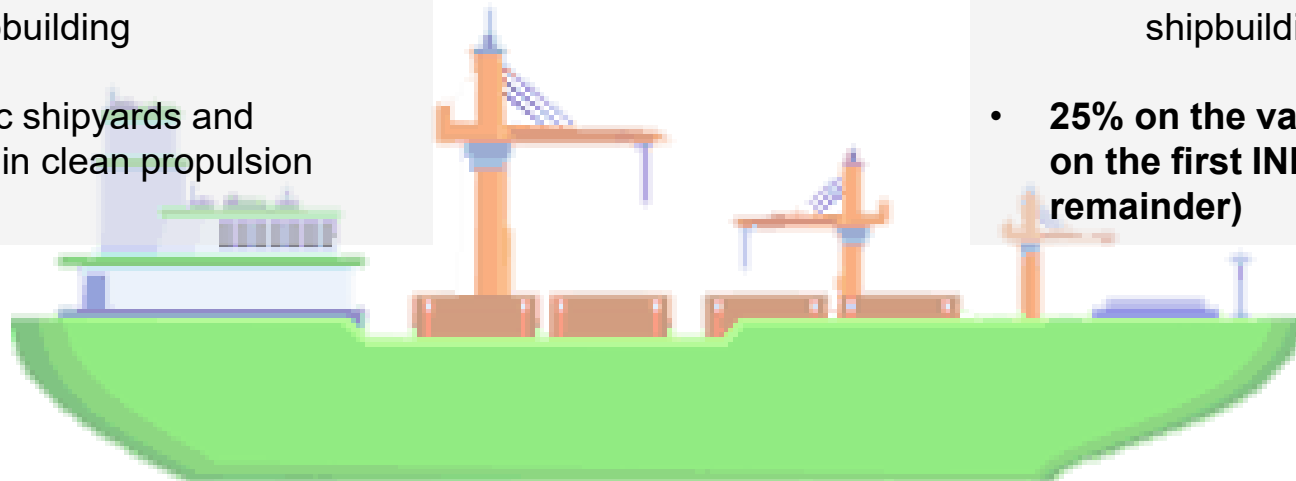


SBFAS (2026-36*)



- **Green Vessel Categories**
 - **Green Vessels:** Vessels operated through eco-friendly fuels like electric batteries, methanol, hydrogen fuel cells, or ammonia.
 - **Hybrid Vessels:** Vessels using conventional fuels (gas, LPG, oil) combined with rechargeable electric sources like batteries.
 - Vessels powered by dual-fuel main engine (methanol, ammonia, LNG, LPG etc.) accelerating adoption of low-carbon and zero-emission technologies in shipbuilding
- **25% on the value above INR 100 Crore (15% on the first INR 100 crore + 25% on remainder)**

** In Principal approval till 2047*





Maritime Development Fund (MDF)



Overview

Maritime Investment Fund (MIF)

₹ 20,000 Cr.
₹ 70,000 Cr under consideration

- Long-term capital deployment for shipbuilding, port modernization & green shipping
- Blended-finance vehicle driving India's maritime transformation
- ₹ 1.5 lakh cr Investments to be mobilized by 2030 on PPP model



Interest Incentivization Fund (IIF)

₹ 5,000 Cr.

- Supports debt financing by reducing the cost of financing
- Incentive Structure:
 - Interest incentive of up to 3%
 - Offered to banks and financial institutions
 - Applicable on loans extended to Indian shipyards

Focus Areas

- ◆ Fleet expansion, shipbuilding, ports, inland waterways, and green shipping to enhance efficiency, capacity, and sustainability
- ◆ Infrastructure & technology backed modernization

Beneficiaries

- ◆ Ports
- ◆ Shipyards and Shipowners
- ◆ Indian shipping companies
- ◆ Coastal communities and maritime MSMEs

Policy Instruments

- ◆ Blended finance model combining equity, debt and VGF
- ◆ Interest subvention and credit-enhancement mechanisms offering concessional lending and partial guarantees



Shipbuilding Development Scheme (SBdS)



₹ 19,989 Cr.



**Shipbuilding
Development Scheme**
(Capacity & capability
development and credit risk
coverage)

01

₹ 9,930 Cr.

Capital support for greenfield capacity expansion

02

₹ 8,261 Cr.

Capital assistance to existing/ brownfield shipyards towards the expansion of production capacity

03

₹ 305 Cr.

Capability development initiatives: set up the India Ship Technology Centre (ISTC)

04

₹ 1,443 Cr.

Shipbuilding risk coverage: Pre-Shipment Insurance, Post-Shipment Insurance and Vendor Default Insurance

05

₹ 50 Cr.


Administrative Expenses



Shipbuilding Development Scheme (SBdS)



	BROWNFIELD EXPANSION				GREENFIELD CLUSTERS				
Components Funded	1 Channel & Basin Development	2 Dry Dock	3 Slipway	4 Shiplift	1 Breakwaters/Tide-independent basins/Wave breakers	2 Channel and basin development	3 Internal infrastructure	4 Common maritime assets	5 Regional Shipbuilding Capability Centres
Objective	Facilitate capacity augmentation, modernization, and technological upgradation of existing shipyards to enhance competitiveness and efficiency				Develop world-class shipbuilding clusters with shared infrastructure and advanced technologies to enhance competitiveness, drive economic growth, and generate jobs				
Highlights	<ul style="list-style-type: none"> Eligibility: Existing Indian shipyard, operational ≥ 3 years; expansion allowed under same legal entity Capital Assistance: Limited to 25% of fair assessed project cost (DPR/IEA appraisal/CA-certified) 				<ul style="list-style-type: none"> Anchor Shipyard: Minimum annual capacity of 0.5 million GT Funding: 100% upfront grant for eligible components SPV Structure: Includes Central/State Govt agencies + Shipyard partner contributions Infrastructure: Trunk infra to be developed by SPV 				

 The Inter-Ministerial Governing Board (IMGB) of NSbM has nominated the DGS as the Implementing Agency for both Greenfield and Brownfield Expansions



Legal, Policy and Process Reforms



Legal, Policy and Process Reforms

Ships as Infrastructure

- Indian owned and flagged Commercial Ships >10,000 GT
- Indian built, owned & flagged Ships >1,500 GT
- Notified on 19th Sept 2025
- Infrastructure status allows ship owners access to infra lending institutions for better terms

Demand aggregation

- Government fleet expansion and domestic shipbuilding plan: worth ~ **INR 2.2 lakh Cr.** for **350+** vessels, to be built domestically
- Reclaim freight, scale ownership, and drive domestic shipbuilding.
- Reduce forex outgo to foreign shipping companies for Indian cargo

Legal and policy reforms

- 5 Major Maritime Legislations passed by Parliament
- Bills of Lading Act, 2025
 - Carriage of Goods by Sea Act, 2025
 - Coastal Shipping Act, 2025
 - Merchant Shipping Act, 2025
 - Indian Ports Act, 2025

Envisaged benefits of reforms:

- Improve Ease of Doing business (EoDB) in Indian maritime sector
- Creation of sustainable demand for Indian shipbuilding industry and easier access to maritime financing



Comprehensive Shipbuilding Portal



The comprehensive shipbuilding portal will serve as a centralized digital hub, bringing together industry capabilities, stakeholder collaboration, technical resources, and innovation for India's shipbuilding and repair sector

Modules

Capability Insights

Display capabilities, projects & achievements, CAF

1

2

Collaboration Hub

Interactive tools for industry professionals to network.- QnA, Posts & Closed Groups

3

Training & Certifications

Information on Training courses and Institutes

4

Finance & Insurance

Information on funding schemes and insurance solutions

5

Innovation Centre

Showcase innovative technologies and R&D projects.

6

Technical Library

Repository of technical documents, standards, and guidelines.

7

Regulatory & Compliance

Updates on maritime regulations and safety standards.

8

Industry Directory

Comprehensive listing of shipbuilding stakeholders.

Objectives



1. Increase global competitiveness of Indian shipbuilding industry



2. Enhanced collaboration between stakeholders (design agency, shipyards, ancillaries and equipment suppliers, regulators etc.).



3. Workforce development through training and certification.



4. To promote R&D and innovation.



5. To provide centralized access to technical information, standards, and guidelines.



6. To provide assistance on financial schemes.

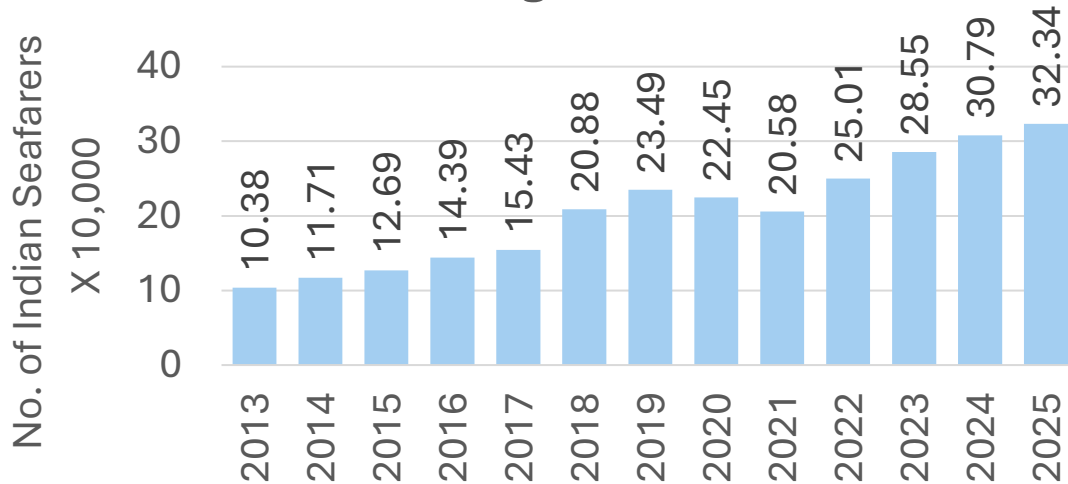


India's Seafaring Scenario

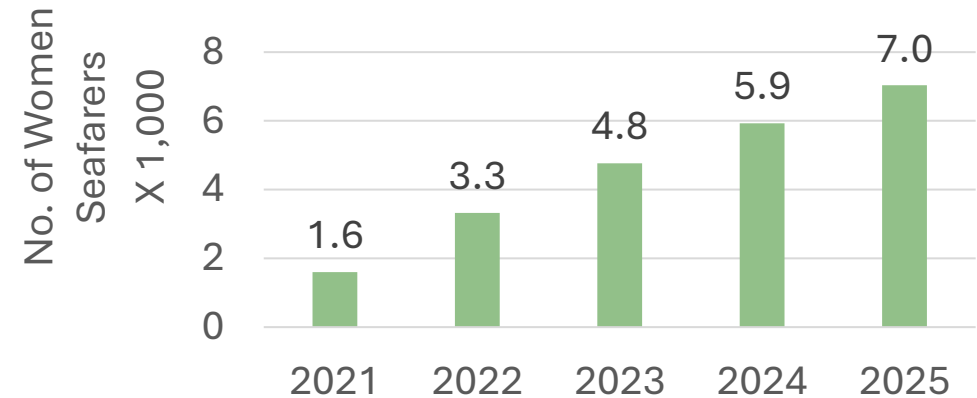


- **India among top 5 maritime nations** in seafarer supply
- **Contributes ~ 12%** of the global seafarer workforce
- **MIV 2030 target:** Increase India's share to **20%** by 2030
- Current share of women seafarers in India: < **0.5%**
- **MIV 2030 target:** Raise women participation to **2-3%** by 2030
- **Growth achieved: 339%** rise since 2021

Year on Year growth of Seafarers



Year on Year growth of Women Seafarers





Sagar Mein Yog & Sagar Mein Samman



Wellness at Sea & Gender Inclusion in Maritime

Sagar Mein Yog

Sagar Mein Yog is a **comprehensive wellness program** built on the integration of yoga, mindfulness, emotional resilience, physical health, and spiritual well-being.

- In partnership with **NUSI** and knowledge partner Trijog
- Linked with MIV 2030 **Deliverable 10.16.3**
- A pilot 3 day ToT Programme was conducted in December with participations of ~56 trainers



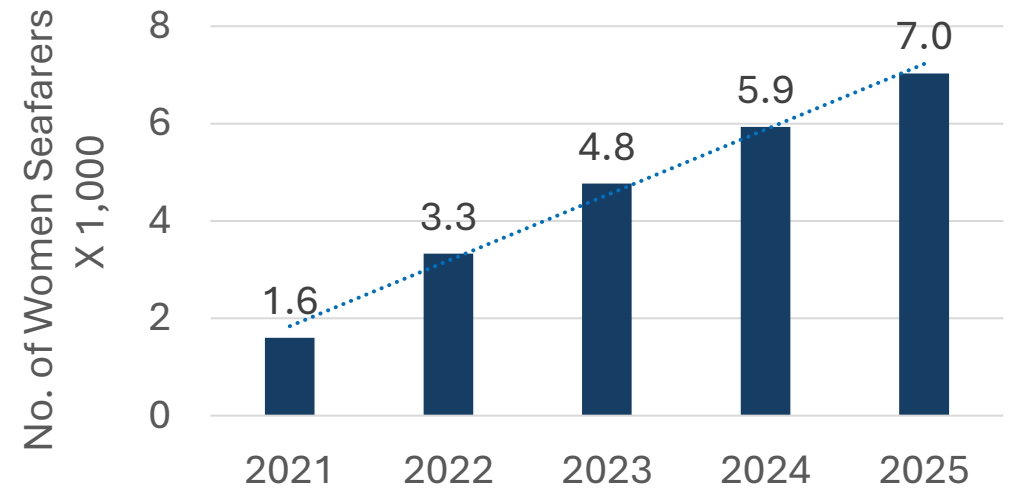
[LMS Link](#)



Sagar Mein Samman

Sagar Mein Samman (Honor at Sea) is the flagship initiative, **designed to transform India's maritime sector into a more inclusive, equitable, and aspirational ecosystem.**

Year on Year growth of Women Seafarers



- **National average:** < 0.5% women seafarers in India
- **Maritime India Vision 2030:** 2–3% women participation by 2030.

Zero Tolerance in Crewing

- DG Shipping follows a Zero Tolerance policy against fraud, cheating, and illegal recruitment of seafarers.
- A nationwide digital awareness campaign was launched through DG Shipping’s social media platforms, publishing multiple videos on:
 - Fraudulent agents and fake job offers
 - Illegal payments to RPSL companies
 - Seafarers’ rights
 - 24x7 Grievance redressal
- To strengthen outreach, DG Shipping conducted symposiums on seafarer recruitment and welfare.
 - Successfully held: Mumbai, Delhi
 - Planned next: Chennai, Kolkata
- The campaign combines digital engagement and on-ground awareness to protect seafarers and prevent exploitation.



DG Shipping Reaffirms Zero Tolerance Towards Fraud and...



Rescue at Sea: True Stories of Protecting Indian Seafarers | Capt. P.C. Meena



Empowering Seafarers: Inside DG Shipping's Crew Branch & Its Vital Role in Maritime Welfare | Capt. P.C. Meena



Empowering Seafarers: Inside DG Shipping's Crew Branch & Its Vital Role in Maritime Welfare | Capt. P.C. Meena



Seafarers' Rights—Know and Protect Yourself | Capt. Nitin...

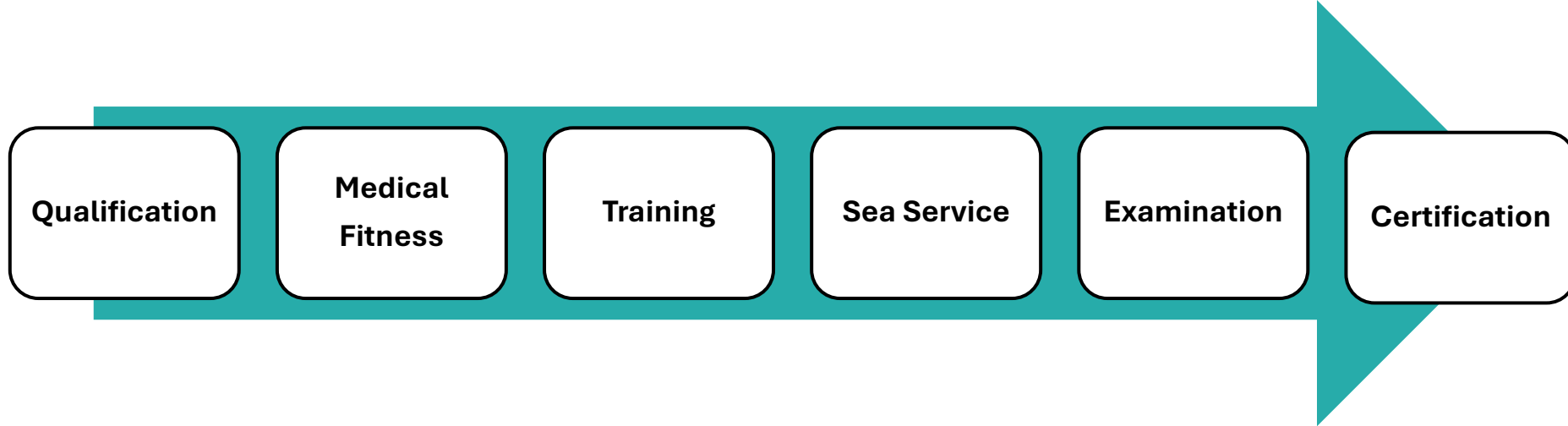


झूठी भारतीय समुद्रकर्मि नौकरियों से सावधान रहें | नौवहन महानिदेशालय...

Redefining Future Maritime Training & Education

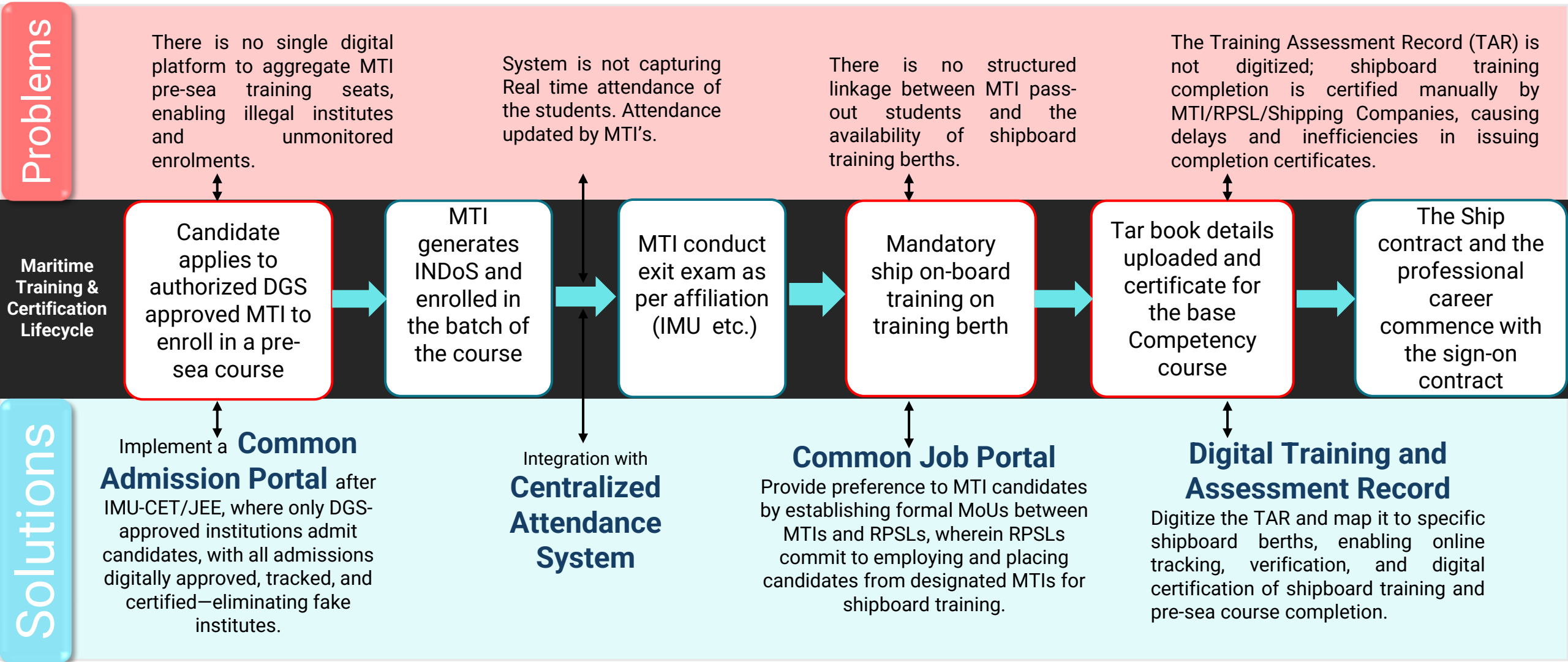


“While compliance with standards is essential for serving on board ships, the skills and competence of seafarers can only be adequately underpinned, updated and maintained through effective Maritime Education, Training, Assessment and reliable Certification of their Competency.” - (General Arsenio Dominguez - IMO Secretary)





Maritime Training and Certification Lifecycle



Digital Transformation for Maritime Education

Training Ecosystem Vision is to create a unified, cloud-based digital platform to regulate and modernize maritime training, certification, and skill development.

Key Features

- Integration of 7 critical modules (e.g., Faculty Development, LMS, Web-Based Simulators) into one cohesive system.
- Real-time oversight and advanced technology for secure, transparent processes.

Objectives

- Strengthen training delivery and assessment integrity.
- Enhance transparency in certification services.

Impact

- Transition from paper-based to secure digital platforms.
- Eliminate fraud, bridge academia–industry gaps, and align with modern shipboard technologies.
- Ensure Indian seafarers remain globally competitive.

Implementation

- Available as a integrated solution with modular approach.
- Represents a strategic shift toward modernized maritime education and continuous professional development.



Digital Initiatives in Training



Examination Reforms



**MTI Modules- 3 +
helpline and
escalation
matrix**



**Learning
Management
System**



**Web based
simulation**



**Digitization of
Training and
Assessment
Record (TAR)**



**Centralized
Attendance
system CAS 2.0**



**Online Maritime
Certificate
Validation
System**



**Use of new analytics tools
for insight building and
effective decision making**



**Placement portal and
authentic job portal**



**AI & Immersive
technology strategy**



**Faculty
development
Program**

New MTI Module



The **MTI Module** is DG Shipping's **central digital regulatory platform** for overseeing Maritime Training Institutes in India.



It manages **MTI approvals, inspections, faculty records, INDoS generation, and compliance monitoring**, forming the backbone of maritime training governance.



Effective implementation of these reforms requires a **robust, integrated, and technology-enabled MTI platform**



Growing instances of **non-compliance and limited real-time monitoring** have highlighted structural gaps in the existing system.



A **modernized MTI module** is essential to ensure **greater transparency, oversight, improved training quality, and global credibility**.

DGS is bringing a new MTI Module to:









- **Enhance compliance and oversight** through real-time monitoring of MTIs, inspections, and STCW adherence.
- **Improve training quality and global competitiveness** of Indian seafarers by aligning MTIs with revamped training standards.
- The **new MTI Module will be seamlessly integrated with the CIP, STCW Module, and Digital TAR Book** integrated with Master Checklist to ensure end-to-end regulatory oversight and compliance.



Examination/Assessment and Certification Reforms: CoC (Written and Oral) by C-DAC and NTA



End-to-end Digitized

1.  **User Registration** ✓
2.  **Eligibility Assessment** ✓
3.  **Seat Booking** ✓
4.  **Misconduct** ✓
5.  **Conduct of Examination** ✓
6.  **Evaluation & Re-evaluation** ✓
7.  **Data Storage** ✓
8.  **Question Bank & Question Paper** ✓

Objective

- To create a secure, transparent, fully digital examination system for the competency assessment and certification of seafarers

Scope

- Covers the full examination lifecycle: from registration to certificate issuance
- Includes both written and oral examinations in hybrid or CBT mode

Core Features

- Biometric verification, CCTV surveillance, online proctoring
- Encrypted question papers & scanned answer scripts and grievance redressal & feedback mechanisms from candidates

Impact

- Uniform candidate experience across all MMDs
- Improved exam integrity, operational efficiency, and transparency

What is a Common Admission Portal ?

- A single, centralized digital platform for all students seeking admission to DG Shipping-approved Maritime Training Institutes (MTIs).
- Enables a uniform, transparent, and merit-based admission process for pre-sea maritime courses across India.
- Provides standardized eligibility checks, online applications, document verification, and merit ranking.
- Ensures admissions only to approved MTIs, courses, and sanctioned intake capacities, maintaining regulatory compliance.
- Offers real-time visibility to DG Shipping on admissions, seat allocation, and institute performance.



Stakeholder	Key Responsibilities
Students	Apply for courses, upload documents, track admission status
Maritime Training Institutes (MTIs)	Verify applications, manage course intake & batches, approve admissions
DG Shipping	Monitor institute-wise admissions, ensure compliance with approved intake capacity
Portal Administrators	Manage system operations, control user access



Transparency and Zero Tolerance for Fraud



A Digital Transformation for Maritime Education

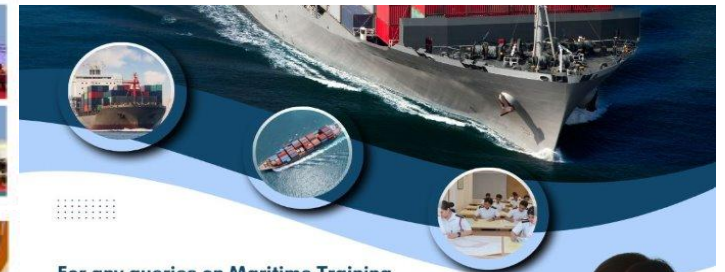
Raising issue over the Call/SMS/WhatsApp

Helpline between 09:00 AM – 06.00 PM

Escalation mechanism for resolving query

Follow-up
Support and right guidance

Analysis & Correction and recurrence



For any queries on Maritime Training, course details, Guidance. Please reach out to the Official helpline.

CONTACT: 8655798737

- Stay Informed
- Stay Compliant
- Stay Safe





सत्यमेव जयते
Ministry of Education
Government of India



Skill India
कौशल भारत - कुशल भारत



Ministry of Education

- The introduction of merchant shipping and other maritime topics in the schools of coastal states.
- Under “**10 Bagless Days in Schools**” for classes 6 to 8 the curriculum will include hobby-based activities to familiarize students with maritime aspects, contributing to their overall educational experience.

Ministry of Skill Development And Entrepreneurship(MSDE)

- Development of a premium course for the candidates studying in school.
- To initiate mapping of local ITIs and institutes to the nearest Maritime Training Institutes (MTIs) for supporting and enhancing the skill development and capacity-building efforts of these local institutions.

- Engagement of professional Event Management Firm – 3 BEES Research Foundation to organize a series of exposure trips to educational institutions nationwide

National Maritime Games 2026

- DGS will be conducting the **National Maritime Games 2026**, starting with the Zonal Games from November 2026, onwards.
- The Zonal events will be followed by the Final National Games, bringing together top performers from all regions.
- The Games aim to foster sportsmanship, maritime camaraderie, and nationwide participation across MTIs and maritime professionals.



Coastal Shipping



Coastal shipping is the movement of goods and passengers along a country's coast using sea routes, offering a cost-effective and eco-friendly alternative to road and rail transport.

- **India's Potential**

- 11,098.81 km coastline & 14,000 km navigable waterways.
- Underutilised compared to road & rail.

- **Trends & Growth**

- Coastal cargo in 2023–24: **187.22 million tonnes** (+1.97%).
- Major commodities: POL, crude, containers, iron ore.
- Paradip & Deendayal Ports lead in volumes.

- **Coastal Shipping Reforms**

- **Coastal Shipping Bill, 2025**: modern legal framework, aligned with global cabotage standards.
- Targets **230 million tonnes by 2030**.
- National Coastal & Inland Shipping Strategic Plan + National Database for Coastal Shipping.
- Supports **Atmanirbhar Bharat & Viksit Bharat 2047** vision.

- **Benefits of Maritime Shipping**

- **Most Carbon-Efficient Mode**

- Shipping has the lowest CO₂ emissions per tonne-km compared to road, rail, and air.

- **Reduced Pollution & Congestion**

- Shifting freight from trucks/trains to ships cuts urban air pollution.
- Less congestion on highways and rail networks.

- **Green Logistics**

- Supports low-carbon supply chains and climate commitments.
- Essential for achieving India's net-zero & IMO 2050 targets.

- **Large-Scale Impact**

- Moving bulk cargo by sea reduces fossil fuel consumption.
- Coastal shipping = key enabler of Blue Economy + Green Economy transition.



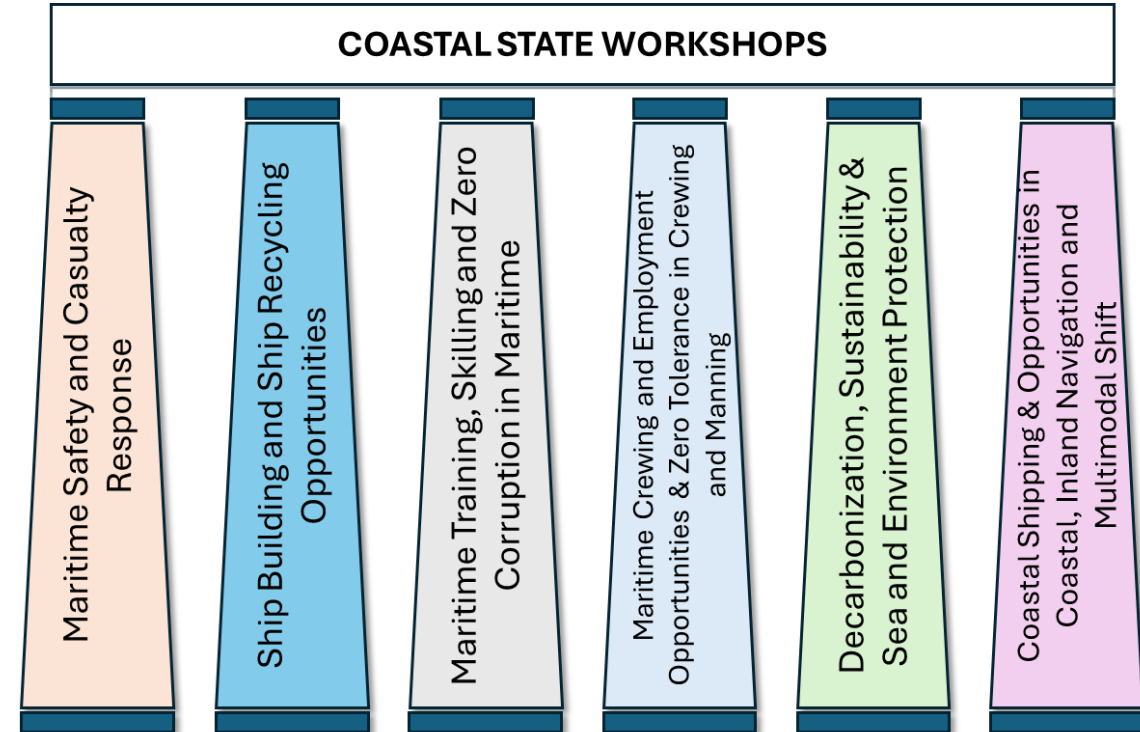
Coastal State Workshops



Coastal state workshops are proposed to be organized to advance welfare, ship recycling, shipbuilding, and repair initiatives in collaboration with State Maritime Boards.

The Coastal State Workshops will be structured around six key pillars :

- i. **Pillar 1** : Maritime Safety and Casualty Response
- ii. **Pillar 2** : Coastal States- Ship Building and Ship Recycling Opportunities
- iii. **Pillar 3** : Maritime Training, Skilling and Zero Corruption in Maritime
- iv. **Pillar 4** : Maritime Crewing and Employment Opportunities & Zero Tolerance in Crewing and Manning
- v. **Pillar 5** : Decarbonization, Sustainability & Sea and Environment Protection
- vi. **Pillar 6** : Coastal Shipping & Opportunities in Coastal, Inland Navigation and Multimodal Shift



It is proposed that the SWFS may contribute to such coastal state workshops from the funds budgeted towards the crew welfare events (Rs. 20 lakh/annum split as Rs. 5 lakhs/quarter) to foster interaction and joint projects, strengthening the maritime domain through focused discussions and capacity-building engagements.



HSSE Appraisal Standard Overview



Importance: Critical role of shipbuilding, repair, and recycling in national maritime capability and employment.



ISO 45001:2018: Occupational health & safety.

ISO 14001:2015: Environmental management..

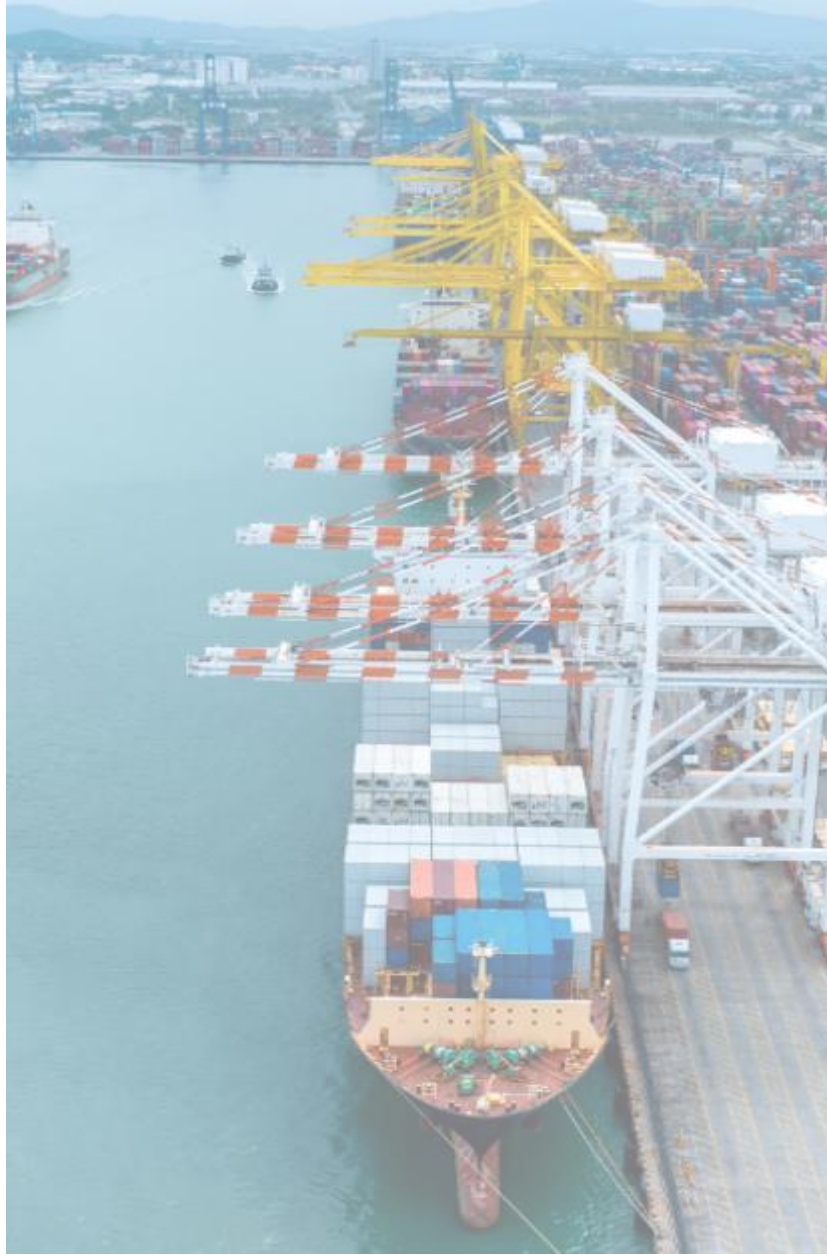
ILO Code of Practice: Safety in shipbreaking.

OSHA Standards: Operational safeguards.

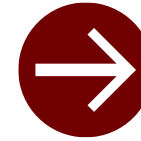
Indian Legal Framework: Recycling of Ships Act, Dock Workers Regulations, EPA.

Purpose

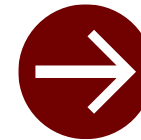
To establish a unified digital platform that improves maritime safety, promotes risk-free professional practices, and aligns with international standards and India's maritime vision.



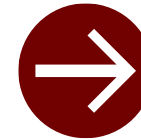
Objectives



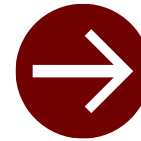
Deliver real-time safety dashboards and analytics across devices.



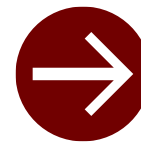
A multilingual repository for circulars, advisories, and IMO guidelines.



Host 30–40 animated safety videos over 3 years, integrated into a learning system.



An AI-driven maritime incident database using tools like Power BI/Tableau.



Support the “Zero Incident” vision through training, compliance, and real-time monitoring.



Suraksha Sarvapratham



Safety First

DGS is focused on promoting safety on vessels and is set to launch a campaign called the Suraksha Sarvpratham, ensuring that the seafarers are able to discharge their duties in a risk-free manner.

To reduce accidents and minimize risks aboard ships.

Detailed documentation of incidents that occur at sea and during port operations.

Systematic recording and analysis of incidents will help identify patterns, understand root causes, and implement preventative strategies.

Instill a culture of safety among seafarers.

Web-based learning management systems for training.

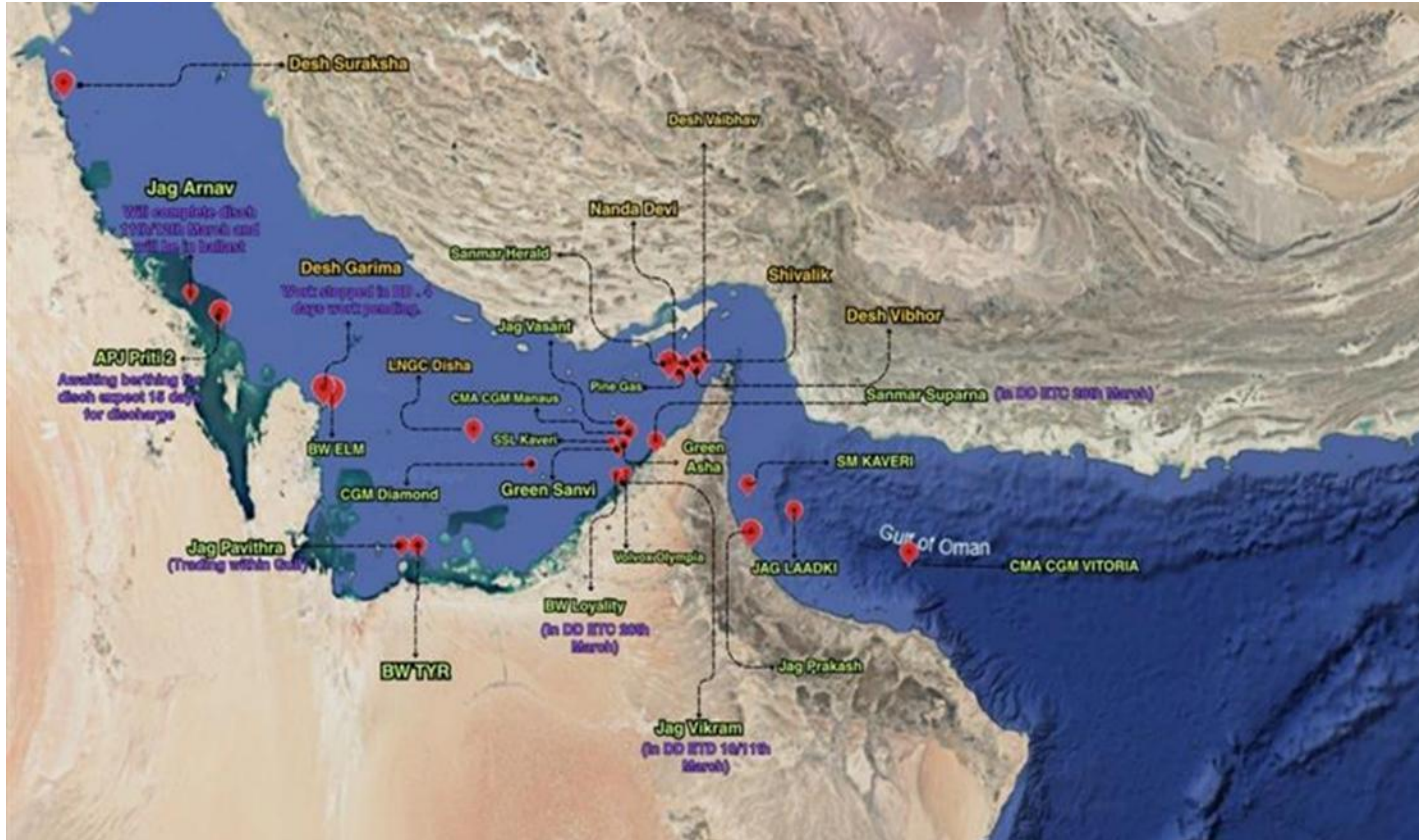
Free online courses will be developed.

To create a safer working environment for seafarers by reducing the frequency and severity of accidents at sea and in ports.

Comprehensive incident documentation, strict adherence to safety protocols, and innovative AI-based safety videos--- to establish Safety Culture



DGS Response during Security Concerns in Iran, Persian Gulf Region



Indian Flagged Vessels in the Persian Gulf Area

28 Indian flagged vessels are in Persian Gulf region*

23,000 Indian seafarers in Persian Gulf

778 Indian seafarers in the Indian flagged vessels *

DGS Response

- Maritime Security Advisory Issued- DGS Circular No. 08 of 2026 (28 Feb 2026)
- Crew Safety Advisory Issued- DGS Circular No. 09 of 2026 (28 Feb 2026)
- Active coordination with Ministry of External Affairs, Indian Navy, IFC IOR, and Embassy of India, Tehran.
- DGComm Centre as nodal 24x7 maritime security reporting point.



Humans as the Paramount Element in the Maritime Industry

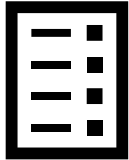


Human element is of paramount importance in the maritime industry as human skills, judgement and welfare drive maritime safety.

Issues of Criminalisation

- Seafarers face legal threats or undue blame for operational incidents, often without due process.

Digital Records



Creation transparent digital records, ensuring fair accountability and reducing wrongful criminalisation

Certification and Assessment



Certification and Assessment and global data sharing detect and respond quickly to abandonment or criminalisation cases

Issues of Abandonment

- Seafarers stranded without pay, support, or repatriation, due to company financial/ legal issues

Digital Platforms



support real-time crew tracking, payroll management, and welfare monitoring, reducing the risks of abandonment

Communication and Grievance Platforms



Support for distress situations, with human-centered policies and tech tools for a just and humane maritime ecosystem

Technology acts as an enabler for protecting seafarer rights, supporting welfare, and strengthening accountability in line with the document's focus on human-centric maritime development



“India remains firmly committed to shaping a responsible, inclusive and forward-looking global maritime transition—while preparing its domestic ecosystem to adapt and lead.”

Thank you



सत्यमेव जयते

**Ministry of Ports,
Shipping & Waterways**
Government of India

