DGS-IME(I)
Green Shipping Conclave 2025
Second Edition

SESSION NOTES

https://greenshippingconclave.in

Session 1

10:45 TO 11:45

Hall A

Green Gateways:
Pioneering Green Transition of Ports

Shri. Rajkumar Beniwal
IAS
SESSION CHAIR

Capt. A.K.Azad
Nautical Advisor (I/C)
SESSION CONVENER

Capt. Anish Joseph
Dy NA, DGS
COORDINATOR

Shri Tarique Mulla
IMEI
COORDINATOR

Panelists	
Mr. Niteen M. Borwankar	Chief Manager Mechanical & Electrical engineering and CEO – SEZ , JNPA
Mr. Suresh Babu	CGM, JnPA
Mr. Rajeev Agarwal	Ex-CEO and MD, SR Ports
Mr. Girish T.	Area Business Director, South East Asia and Indian Subcontinent, DNV
Mr. Daljit Singh Kohli	India Representative for Port of Antwerp-Bruges

Experts	
Mr. Shobhit Kapoor	M&O Operations Manager SAW. Lloyd's Register India

Session Summary	
DNV Singapore	Mr. Uday C.

SESSION-1
GREEN GATEWAYS:
PIONEERING GREEN TRANSITION OF PORTS (GREEN PORTS)

1. Session Overview

This session, "Green Gateways: Pioneering Green Transition of Ports," aims to explore the transformative role of ports in achieving sustainable maritime operations. As crucial nodes in the global supply chain, ports are significant contributors to greenhouse gas (GHG) emissions, marine pollution, and resource consumption. This session will highlight India's initiatives to mitigate these impacts through the Green Ports Policy Framework, aligning with international commitments such as the Paris Agreement and the IMO's Revised GHG Strategy 2023.

2. Context and Rationale

Ports are the backbone of global trade, serving as critical hubs for the movement of goods and facilitating economic growth. However, their operations come with significant environmental costs, including greenhouse gas emissions, water pollution, and resource overconsumption. In India, ports handle 95% of the country's EXIM trade by volume, positioning them as both key economic drivers and major environmental stakeholders. The rapid industrialization of port activities has heightened the urgency for sustainable practices that balance economic growth with environmental stewardship.
The shift towards Green Ports is not only a response to international climate mandates but also an opportunity to redefine India's maritime future. By integrating renewable energy, improving waste management, and adopting smart technologies, Indian ports can significantly reduce their carbon footprint while enhancing operational efficiency. This session will delve into how ports can act as catalysts for regional development, environmental protection, and technological innovation, showcasing successful models from global leaders like Rotterdam, Singapore, and Los Angeles.

3. Focus on Indian Initiatives

India's 12 major ports and over 200 non-major ports are at the forefront of the green transition. This session will showcase pioneering efforts from ports such as Jawaharlal Nehru Port Authority (JNPA), Paradip, and Kandla, which are leading in renewable energy adoption, LNG bunkering, and hybrid systems. The Green Ports Policy Framework integrates initiatives from the Maritime India Vision 2030, National Hydrogen Mission, and Green Tug Transition Programme, aiming to reduce GHG emissions, improve air quality, and promote sustainable development.

4. Challenges and Opportunities

The transition to Green Ports presents several challenges:

- High Initial Investments: Significant capital is required for infrastructure upgrades, renewable energy integration, and technological advancements.
- Technological Integration Complexities: Incorporating new technologies such as AI, IoT, and automation in traditional port operations can be complex.
- Regulatory Gaps: Aligning port operations with evolving international environmental standards requires comprehensive policy updates.
- Skilled Workforce Shortage: There is a need for specialized training programs to equip personnel with skills to manage green technologies.

However, these challenges present substantial opportunities:

- Operational Efficiency: Digitalization and smart technologies can streamline operations, reducing costs and improving efficiency.
- Environmental Benefits: Adoption of renewable energy and emission-reducing technologies can significantly lower the environmental footprint of ports.
- Global Competitiveness: Ports that lead in green transitions can attract more international business and investments.
- Public-Private Partnerships: Collaborations between government and private sectors can drive innovation and funding for green initiatives.

5. Key Discussion Points

5.1 Renewable Energy Integration: Strategies for adopting solar, wind, and tidal energy in port operations.

5.2 Shore-to-Ship Power (Cold Ironing): Implementation of systems allowing docked vessels to draw power from the port grid.

5.3 Energy-Efficient Cargo Handling: Electrification and automation to improve energy efficiency

5.4 Green Bunkering Infrastructure: Development of facilities for alternative fuels like LNG, hydrogen, and methanol.

5.5 Digitalization and Emerging Technologies: Leveraging AI, IoT, and blockchain for optimized port management.

5.6 Capacity Building and Training: Equipping port personnel with skills to manage green technologies.

5.7 Green Corridors and Just-In-Time (JIT) Systems: Optimizing vessel routes and reducing idle times.

6. Expected Session Outcomes

6.1 Innovative Policy Pathways: Formulating dynamic policies that go beyond conventional frameworks, promoting renewable energy integration, and establishing ambitious emission reduction targets tailored to India's port ecosystem.

6.2 Real-World Success Insights: Highlighting practical examples from ports in India and globally that have successfully integrated sustainable practices, offering adaptable models for diverse operational environments.

6.3 Strategic Collaboration Blueprints: Identifying new models for partnerships between government bodies, private enterprises, and international stakeholders to finance and operationalize green port infrastructure.

6.4 Skill Development Ecosystems: Introducing specialized training programs and professional certifications that not only enhance technical know-how but also promote a culture of sustainability within port operations.

6.5 Scalable Action Plans: Crafting a phased, actionable framework that sets clear milestones for India's ports, with a focus on measurable environmental outcomes and alignment with global maritime sustainability standards.

Session 2

10:45 TO 11:45

Hall B

Green Ships & Smart Tech:
Integrating Technology for Sustainable Seas

Shri. Madhu S Nair
Cochin Shipyard Ltd.
SESSION CHAIR

Shri Anil Kumar
Lloyd's Register Kuala Lumpur
SESSION COVENER

Shri Pradeep Sudhakar
Chief Ship Surveyor (I/C)
COORDINATOR

Shri Nebu Oommen
Ship Surveyor
COORDINATOR

Shri. Bryan D'sa
IMEI
COORDINATOR

Panelists	
Mr. Arjun Chowgule	Executive Director, Chowgule Group
Mr. Hrishikesh Narasimhan	General Manager, L&T Shipbuilding Ltd
Mr. Sanjay Verma	Director - Decarbonisation solutions, Middle East & Asia, WARTSILA
Mr. Sajan P John	Chief Operating Officer, Kochi Water Metro
Mr. Ronny Hansen	Nautical Adviser, Danish Maritime Authority

Session Summary	
Class LR	Mr. Amrish Bansal

1. Session Overview

The session "Green Ships & Smart Tech: Promoting Green Ship Construction in India" at the Green Shipping Conclave 2025 will focus on advancing India's position as a global hub for sustainable shipbuilding. As the maritime industry faces pressure to reduce greenhouse gas (GHG) emissions, this session will highlight India's strategies to integrate green technologies and smart solutions in ship construction, emphasizing innovations in ship design, eco-friendly techniques, and digital tools.

2. Context and Rationale

The maritime sector contributes about 3% of global GHG emissions, necessitating urgent interventions to meet international commitments like the IMO's Revised GHG Strategy 2023 targeting net-zero emissions by 2050. Green ship construction, involving energy-efficient designs, alternative fuels, and smart technologies, presents a clear pathway to decarbonization. For India, promoting green shipbuilding is vital for enhancing competitiveness, fostering technological innovation, and aligning with global environmental standards.

India's extensive coastline established shipbuilding industry, and government initiatives like Maritime India Vision 2030 position it favorably to lead in sustainable ship construction. By leveraging digital tools such as AI, IoT, and big data analytics, the Indian shipbuilding sector can optimize design, reduce timelines, and improve environmental performance.

3. Green Ship Construction Initiatives in India

India has launched several initiatives to promote green ship construction. Key programs include developing hydrogen and ammonia-ready vessels, retrofitting existing ships with eco-friendly technologies, and modernizing shipyards with smart solutions. The government's Sagarmala program and public-private collaborations have spurred investments in shipbuilding infrastructure. Shipyards like Cochin Shipyard Limited (CSL) and Hindustan Shipyard Limited (HSL) are constructing LNG-fueled and hybrid vessels. Research and development in green shipbuilding have accelerated, with government-backed projects increasing by 20% over the past five years.

4.1 Challenges and Opportunities

4.1 Challenges:

4.1.1 High Capital Costs: Significant investments are needed for developing and retrofitting ships with green technologies.

4.1.2 Technological Gaps: Limited access to advanced shipbuilding technologies, such as LNG propulsion systems and digital twins.

4.1.3 Regulatory Complexities: Aligning national regulations with international standards and streamlining environmental clearances.

4.1.4 Infrastructure Constraints: Shortage of specialized dry docks and facilities for constructing alternative fuel-ready vessels.

4.1.5 Skilled Workforce Shortage: Insufficient skilled labor trained in green shipbuilding technologies.

4.2 Opportunities:

4.2.1 Operational Efficiency: Smart construction technologies reduce production timelines, costs, and resource consumption.

4.2.2 Environmental Leadership: Green ships reduce emissions and ensure compliance with international environmental standards.

4.2.3 Global Competitiveness: Early adoption of green technologies positions India as a key player in the global shipbuilding market.

4.2.4 Export Potential: India can become a major exporter of eco-friendly ships, targeting a 5% share of the global shipbuilding market by 2035.

4.2.5 Innovation and R&D Growth: Encouraging research and development fosters innovation and sustainable economic growth.

5. Key Discussion Points

5.1 Green Ship Design and Technologies:

- Development of energy-efficient hull designs and propulsion systems.
- Integration of alternative fuels like LNG, hydrogen, and ammonia.

5.2 Smart Shipbuilding Techniques:

- Leveraging AI and big data analytics for optimizing ship design and construction.
- Using digital twins for performance optimization and predictive maintenance.
- Implementing modular construction techniques and 3D printing to reduce waste.

5.3 Infrastructure Development:

- Upgrading shipyards with automated fabrication units and alternative fuel-ready infrastructure.
- Establishing maritime clusters with advanced shipbuilding facilities.

5.4 Regulatory and Policy Support:

- Aligning national regulations with IMO's decarbonization and digitalization goals.
- Developing streamlined approval processes and a green certification framework.

5.5 Capacity Building:

- Implementing training programs for maritime professionals in green ship construction.
- Fostering collaborations between academia, research centers, and industry stakeholders.

6. Expected Outcomes

6.1 Strategic Roadmap Development: Crafting a roadmap for adopting green ship construction technologies in India.

6.2 Policy Recommendations: Proposing interventions to support green technology integration and infrastructure modernization.

6.3 Best Practices Exchange: Sharing global and domestic case studies to guide India's transition to sustainable shipbuilding.

6.4 Investment Opportunities: Identifying investment areas and financial models to support green shipbuilding.

6.5 Capacity Building Initiatives: Designing training programs to equip professionals with skills for managing green ship construction technologies.

6.6 Global Leadership: Establishing India as a hub for green ship construction, contributing to global decarbonization efforts and capturing a significant share of the international shipbuilding market.

Session 3 | **11:45 to 12:45** | **Hall A**

Green Energy Waves:
Driving Maritime Sustainability Through Green Fuels

Shri. Arun Sharma
Chairman, Indian Register of Shipping (IRS)
SESSION CHAIR

Shri P.K. Mishra
MD, IRS
SESSION CONVENER

Shri. Satish Kamath
Engineer & Ship Surveyor
COORDINATOR

Shri. Kunal Sharma
IME(I)
COORDINATOR

Panelists	
CMDE Debesh Lahiri (Retd.)	Advisor - Resource efficiency and governance (green shipping) - TERI
Mr. Siddhartha Mitra	Chief General Manager (Supplies & Distribution and Biofuels)
Mr. Mrinal Dutt	Senior Manager, GAIL
Mr. Tarun Kumar	Chief Manager Strategy, Gas/LNG-BPCL
Ms. Josefine Pallesen	Maritime Counsellor Royal Embassy of Denmark
Dr. Arun Sharma	Adviser to Chairman, Group head Sustainability & Climate Change, Adani Group

Experts	
Dr Piyali Das	Associate Director, Advanced Biofuels Division, TERI, NCoEGPS
Mr. George Thomas	GM Energy Transition, HPCL
Mr. Devrup Kabi	Principal Surveyor , IR
Mr. Tejas Kshatria	VP Green Technology, KPIT
Mr. Saurabh Saxena	Founder, Director & President, AHODS Technologies

Session Summary	
Class NK	Mr. S.Sampath

SESSION-3
GREEN ENERGY WAVES:
DRIVING MARITIME SUSTAINABILITY THROUGH GREEN FUELS

1. Session Overview

The session "Green Energy Waves: Driving Maritime Sustainability Through Green Fuels" at the Green Shipping Conclave 2025 will explore the transformative role of alternative fuels in decarbonizing the maritime industry. As global maritime emissions continue to rise, the transition to low and zero-carbon fuels such as green ammonia, hydrogen, methanol, and biofuels is essential to achieving international climate goals, including those set by the Paris Agreement and the IMO's Revised GHG Strategy 2023.

2. Context and Rationale

The maritime sector accounts for nearly 3% of global greenhouse gas (GHG) emissions, with projections indicating significant increases if corrective measures are not implemented. Green fuels offer a viable pathway to decarbonize the industry, reduce dependence on fossil fuels, and minimize environmental impacts. India, with its vast coastline and strategic position in global trade, is uniquely positioned to lead this transition by leveraging its renewable energy capacity, technological innovation, and policy initiatives.

3. Focus on Green Fuel Initiatives in India

India has made significant strides in adopting alternative fuels within the maritime sector. Initiatives include the development of green hydrogen hubs, establishment of bunkering infrastructure for LNG and methanol, and pilot projects for ammonia-fueled vessels. Ports like Jawaharlal Nehru Port Authority (JNPA) and Paradip are at the forefront of integrating green fuel solutions, supported by national policies such as the National Hydrogen Mission and collaborations with international stakeholders.

4. Challenges and Opportunities

The transition to green fuels presents challenges such as high production costs, technological uncertainties, and regulatory hurdles. The infrastructure required for the production, storage, and distribution of green fuels like ammonia and hydrogen demands significant investment and technological advancements. Furthermore, the lack of standardized regulatory frameworks can hinder the widespread adoption of these fuels.

However, these challenges present opportunities for innovation, investment, and international collaboration. India's vast renewable energy resources and strategic government initiatives offer a unique advantage in developing a robust green fuel ecosystem. Public-private partnerships, international funding mechanisms, and advancements in technology can further accelerate the adoption of green fuels, positioning India as a global leader in maritime sustainability.

5. Key Discussion Points

5.1 Green Ammonia and Hydrogen: Exploring the potential of green ammonia and hydrogen as zero-emission fuels, focusing on production, storage, and distribution challenges.

5.2 LNG and Methanol: Evaluating the role of LNG and methanol as transitional fuels in the shift towards a fully decarbonized maritime industry.

5.3 Biofuels and Synthetic Fuels: Assessing the viability of biofuels and synthetic fuels derived from renewable sources in reducing carbon footprints.

5.4 Infrastructure and Bunkering: Strategies for developing robust bunkering infrastructure and supply chains to support widespread adoption of green fuels.

5.5 Regulatory and Safety Frameworks: Aligning national regulations with international standards to ensure safe handling and usage of alternative fuels.

5.6 Technological Innovations: Leveraging emerging technologies to enhance the efficiency and scalability of green fuel adoption.

5.7 Public-Private Partnerships: Encouraging collaborations between government bodies, private enterprises, and international organizations to drive investment and innovation.

6. Expected Session Outcomes

6.1 Strategic Roadmap Development: Formulating a roadmap for the phased adoption of green fuels in India’s maritime sector.

6.2 Policy Recommendations: Identifying key policy interventions needed to support green fuel infrastructure, subsidies, and R&D initiatives.

6.3 Best Practices Exchange: Sharing global success stories and lessons learned to guide India’s green fuel transition.

6.4 Investment Opportunities: Highlighting potential investment areas and financial models to support the green fuel ecosystem.

6.5 Capacity Building: Proposing training programs and knowledge-sharing platforms to equip maritime professionals with skills for handling green fuels.

Session 4

11:45 TO 12:45

Hall B

Green Recycling:
Paving the Way for a Sustainable Circular Economy

Shri. Rajesh Kumar Sinha
Addl Secretary, MoPSW
SESSION CHAIR

Shri. Ashok Srinivasan
Regional Manager & Technical Adviser ,BIMCO, Singapore
SESSION CONVENER

Shri. P. Gopinandan
Engineer & Ship Surveyor
COORDINATOR

Shri. Karthik S.
IMEI
COORDINATOR

Panelists	
Mr. Rajkumar Beniwal	VC, CEO, GMB
Mr. Ehud Bar-Lev	Operational Support Advisory Services Head, LR, EMEA, Israel
Mr. Haresh Parmar	Honourary Secretary ,SRIA
Dr. Anand Hiremath	Chief Sustainability Officer, GMS
Mr. Rubal Bansal	Owner-Bansal Groups

Session Summary	
IRS	Mr. Karthik S.

1. Session Overview

The session "Green Recycling: Paving the Way for a Sustainable Circular Economy" at Green Conclave 2025 will explore the transformative role of ship recycling in driving sustainable development and supporting the global shift towards a circular economy. With the enforcement of the Hong Kong International Convention (HKC) in June 2025, India is positioned to lead in sustainable ship recycling, demonstrating the integration of economic growth, environmental stewardship, and social welfare.

2. Context and Rationale

Ship recycling plays a critical role in resource conservation, waste reduction, and pollution control, contributing significantly to the circular economy. India, along with Bangladesh and Pakistan, accounts for 97% of global ship recycling activities. The Alang-Sosia Ship Recycling Yard in Gujarat, the largest facility globally, leads this initiative with a recycling capacity of 4.5 million LDT annually, representing 98% of India's capacity. This session will delve into India's proactive approach to aligning with HKC standards, underscoring its commitment to sustainable practices.

3. Regulatory and Institutional Framework

India's robust regulatory framework for sustainable ship recycling includes:

- Ship Breaking Code, 2013: Focuses on hazardous waste disposal, worker safety, and environmental protection.
- Recycling of Ships Act, 2019: Aligns national laws with HKC, restricting hazardous materials and certifying recycling facilities.
- Ship Recycling Rules, 2021: Governs ship recycling activities for both Indian and foreign ships.
- Upcoming Regulations: Ensure comprehensive HKC compliance.

Key agencies involved include the Ministry of Ports, Shipping, and Waterways (MoPSW), Directorate General of Shipping (DGS), Ministry of Labour and Employment, Ministry of Environment, Forest and Climate Change (MoEFCC), State Maritime Boards, Port Authorities, and Recognized Organizations (ROs).

4. Challenges and Opportunities

The transition to green recycling practices in India faces several challenges:

- High Initial Investments: Upgrading recycling yards to meet international standards requires significant financial outlays.
- Technological Integration: Implementing advanced waste management, emissions control, and monitoring technologies.
- Regulatory Compliance: Ensuring consistent enforcement of HKC and EU Ship Recycling Regulations (EUSRR).
- Worker Safety and Training: Enhancing safety measures and providing specialized training for workers.

However, these challenges present substantial opportunities:

- Global Leadership: Establishing India as a hub for sustainable ship recycling and circular economy practices.
- International Investments: Attracting funding and partnerships through compliance with global standards.
- Technological Innovation: Fostering advancements in recycling technologies that can be applied across industries.
- Environmental Stewardship: Contributing to significant reductions in greenhouse gas emissions and hazardous waste.

5. Key Discussion Points

5.1. Economic Contributions of Ship Recycling:

- Contribution to India's steel industry, meeting 10% of secondary steel needs.
- Employment generation with over 15,000 direct and 150,000 indirect jobs.
- Revenue generation with an annual market size exceeding ₹5,000 crore.

5.2. Environmental Impacts and Mitigation:

- Reduction in Hazardous Waste: Nearly 99% of ships recycled at Alang comply with the Inventory of Hazardous Materials (IHM), minimizing environmental contamination.
- Resource Conservation: Recycling 4.5 million tonnes of Light Displacement Tonnage (LDT) annually conserves natural resources, reducing the need for mining raw materials.
- Reduction in Greenhouse Gas Emissions: Recycling steel reduces CO2 emissions by 1.5 tonnes per tonne of recycled steel, significantly contributing to climate change mitigation.
- Protection of Coastal and Marine Ecosystems: HKC-compliant practices ensure waste management and prevent marine pollution, safeguarding biodiversity in the Gulf of Khambhat.
- Minimization of Landfill Waste: Approximately 90% of a ship's weight is recycled, reducing landfill waste and conserving space.

5.3. Social Benefits and Community Development:

- Job creation and specialized training for workers.
- Infrastructure development and social welfare enhancements in coastal communities.
- Inclusive growth, supporting marginalized communities and promoting gender inclusivity.

6. Expected Outcomes

Participants will gain comprehensive insights into the latest best practices, innovative technologies, and regulatory frameworks driving green recycling. The session aims to:

- Promote Stakeholder Collaboration: Foster partnerships among government agencies, private sector entities, and international organizations to drive sustainable ship recycling practices.
- Develop Policy Recommendations: Identify key policy interventions and frameworks that can support the scaling of sustainable recycling practices in India.
- Highlight Investment Opportunities: Showcase potential areas for investment in green technologies, infrastructure, and training programs.
- Encourage Capacity Building: Propose training modules and knowledge-sharing platforms to equip workers and stakeholders with the necessary skills and knowledge for sustainable recycling.
- Enhance Regulatory Frameworks: Advocate for stronger enforcement of existing regulations and the development of new policies that align with international standards.
- Strengthen India's Global Position: Align India's ship recycling practices with international sustainability targets, positioning the country as a leader in the circular economy and a benchmark for global best practices.

Session 5

1:30 TO 2:30

Hall A

Green Capital:
The Role of Green Finance in Maritime Decarbonization

Shri. Deepak Shetty
Ex.DG Shipping
SESSION CHAIR

Shri. Suresh Swamy
Partner Price Water house & Co LLP
SESSION CONVENER

Shri. Praveen Nair
Engineer & Ship Surveyor
COORDINATOR

Shri. Rajesh Kasaragod
IME(I)
COORDINATOR

Panelists	
Mrs. H.K Joshi	Ex CMD SCI
Mr. Anil Devli	CEO, INSA
Ms. Surbhi Goyal	Senior Energy Specialist, World Bank Group
Mr. Jayakumar	Senior Specialist, KPMG
Mr. Ambrish Bansal	SVP Consultancy, Lloyd's Register Mumbai

Experts	
Mr. Amit Ozha	Founder CEO, Astromar Shipping & Trading Services

Session Summary	
RINA	Mr. Aswin Palliath

1. Session Overview

The session "Green Finance: Unlocking Sustainable Investments in Maritime Decarbonization" at the Green Shipping Conclave 2025 aims to address the critical role of financial mechanisms in facilitating the green transition of India's maritime sector. With the maritime industry responsible for 95% of India's EXIM trade by volume, ensuring sustainable financing is essential to achieving decarbonization goals. This session will focus on leveraging green financial instruments, fostering public-private partnerships, and aligning with international sustainability standards to drive the decarbonization of the maritime sector.

2. Context and Rationale

The maritime sector, a cornerstone of global trade and economic growth, faces increasing scrutiny for its environmental impact, contributing nearly 3% of global greenhouse gas emissions. As India strives to align with international climate commitments, there is an urgent need to mobilize financial resources that support sustainable maritime practices. Traditional financing models have proven insufficient to meet the capital demands of green technologies, highlighting the necessity for specialized financial instruments tailored to the unique needs of the maritime industry.

Green finance emerges as a pivotal solution, offering mechanisms like green bonds, sustainability-linked loans, and blended finance models that can bridge the funding gap. The recent announcement of the **Maritime Development Fund** in the Union Budget marks a significant step towards this goal, providing dedicated financial support for sustainable maritime projects. Additionally, the enhancement of the **Shipbuilding Financial Assistance (SBFA**) scheme to offer a **30% subsidy for green shipbuilding** underscores the government's commitment to accelerating the adoption of eco-friendly technologies in ship construction.

These financial interventions are not just about funding; they represent a strategic shift towards integrating environmental, social, and governance (ESG) criteria into maritime investments. By fostering a robust green finance ecosystem, India can stimulate innovation, reduce the environmental footprint of its maritime sector, and enhance its global competitiveness. This session will delve into the practical applications of these financial tools, exploring how they can be leveraged to transform India's maritime landscape into a model of sustainability.

3. Focus on Green Finance Initiatives in India

India has been progressively integrating green finance into its broader economic framework. Financial mechanisms such as green bonds, government-backed credit guarantees, and tax incentives are being developed to support sustainable investments in the maritime sector. The Maritime Development Fund and the enhanced SBFA scheme are pivotal in this transition, offering targeted financial assistance to promote the adoption of green technologies in shipbuilding and port operations.
Initiatives to promote green technology manufacturing, retrofitting of existing ships, and development of green port infrastructure are also being supported through innovative financial models. These include production-linked incentives, concessional financing, and blended finance models that combine public and private capital to de-risk investments.

4. Challenges and Opportunities

The session will address challenges such as high initial capital costs, limited access to affordable financing, and an underdeveloped green bond market in India. Technological uncertainties and the lack of standardized financial frameworks can hinder the pace of green investments. Moreover, there is a need for greater awareness and expertise within financial institutions to assess and support green maritime projects.
However, these challenges present significant opportunities. The Maritime Development Fund and the SBFA subsidy provide a strong foundation for reducing financial barriers. Blended finance models, government-backed guarantees, and stronger carbon pricing mechanisms can further de-risk investments and attract both domestic and international investors. Aligning with global sustainability standards and leveraging international funding mechanisms can enhance investor confidence and facilitate the flow of capital towards sustainable maritime projects. Public-private partnerships and innovative financial instruments will be key to unlocking sustainable investments in the sector.

5. Key Discussion Points

5.1 Green Bonds & Sustainability-Linked Loans: Strategies to expand the use of green finance instruments to incentivize sustainable investments while ensuring transparency and accountability.

5.2 Blended Finance Models: Combining public and private capital to de-risk investments and improve access to affordable financing, especially in developing nations.

5.3 Government-Backed Credit Guarantees: Offering partial risk guarantees or concessional financing to lower borrowing costs for green projects.

5.4 Carbon Pricing & Market-Based Incentives: Establishing carbon pricing mechanisms and emissions trading schemes to create financial incentives for sustainable shipping investments.

5.5 Technology Risk Mitigation: Supporting research, development, and pilot projects through grants, subsidies, and public-private partnerships to accelerate commercial adoption.

5.6 Long-Term Lifecycle Financing: Encouraging investment decisions based on total cost of ownership rather than just upfront capital expenditures.

5.7 Financial Standardization & Harmonization: Aligning global green finance standards to improve investor confidence and facilitate cross-border investments.

6. Expected Session Outcomes

6.1 Catalyzing Innovative Financial Products: The session aims to inspire the creation of new financial instruments tailored for the maritime sector, such as green leasing models and maritime-specific sustainability bonds.

6.2 Bridging Knowledge Gaps: Participants will gain a deeper understanding of how to navigate and leverage the Maritime Development Fund and the SBFA subsidy, fostering informed decision-making.

6.3 Fostering Multi-Sectoral Collaborations: By connecting stakeholders across government, finance, and maritime industries, the session will lay the groundwork for synergistic partnerships and collaborative funding models.

6.4 Driving Practical Implementation: Emphasis will be placed on actionable insights, helping stakeholders translate financial opportunities into concrete decarbonization projects.

6.5 Setting Benchmarks for Green Investment: The session will identify key performance indicators for measuring the success of green finance initiatives, setting a benchmark for future investments in maritime sustainability.

Session 6 | **2:30 TO 3:30** | **Hall A**

Green Alliances:
International Cooperation for Greener Seas

Shri. CSR Ram
Jt Secretary, MEA
SESSION CHAIR

Shri. Aniruddha Chaki
Engineer & Ship Surveyor
SESSION CONVENER

Shri. Aniruddha Chaki
Engineer & Ship Surveyor
COORDINATOR

Ms. Archana Sangal
IMEI
COORDINATOR

Panelists	
Ms. Monica	Consular General, Norway
Mr. Thierry Van Helden	Deputy Consulate General, Netherlands
Ms. Eva	Trade & Investment commissioner, FIT, Mumbai
Mr. Jakob Visti Eriksen	Special Adviser Danish Maritime Authority
Mr. Erik af Hallstrom	Consul General , Finland
Mr. Philipp Wittrock	Project Manager & Lead Shipping, International PtX Hub

Experts	
Dr. Arun Sharma	Adviser to Chairman, Group head Sustainability & Climate Change, Adani Group

Session Summary	
ABS	Mr. Ilias / Mr. Ambar Roy

1. Session Overview

The session "Green Alliances: International Cooperation for Greener Seas" at the Green Shipping Conclave 2025 will focus on fostering global partnerships to drive sustainable maritime practices. As the maritime sector faces increasing environmental challenges, international cooperation becomes essential in achieving global climate goals and ensuring a just transition for all stakeholders. This session will explore collaborative frameworks, shared technological advancements, and policy alignments that can accelerate the decarbonization of the maritime sector.

2. Context and Rationale

The maritime sector accounts for nearly 3% of global greenhouse gas (GHG) emissions. With international regulatory frameworks like the IMO's Revised GHG Strategy 2023 aiming for net-zero emissions by 2050, there is an urgent need for countries to work together to implement sustainable shipping solutions. Green alliances among nations can facilitate knowledge sharing, financial support, and the adoption of best practices, ensuring that all countries, particularly developing nations, can participate in and benefit from the green transition.
India, as a major maritime nation, has an opportunity to lead in international cooperation by leveraging its strategic position, robust maritime infrastructure, and commitment to sustainability. Through collaborative efforts with global partners, India can enhance its maritime competitiveness, contribute to global climate goals, and support the development of greener seas.

3. Focus on International Cooperation Initiatives

India has been actively participating in global maritime sustainability initiatives. Key collaborations include:

3.1 Bilateral Partnerships: India has signed MoUs with countries like Denmark and Norway to promote green shipping technologies and sustainable maritime practices.

3.2 Regional Alliances: Engagement with BIMSTEC countries and the Indian Ocean Rim Association (IORA) to develop regional green corridors and harmonize environmental regulations.

3.3 Global Platforms: Active participation in the International Maritime Organization (IMO) and alignment with global standards on emissions reduction, fuel efficiency, and maritime digitalization.

3.4 Public-Private Partnerships: Collaborations with international shipping companies, technology providers, and financial institutions to fund and implement green shipping projects.

4. Panellists and Key Stakeholders

The session will feature distinguished panellists, including Consulate Generals from leading maritime countries such as Norway and Denmark, who have established strong partnerships with India. Notable initiatives include:

- IMO Green Voyage 2050: A collaborative program between India and Norway focused on reducing GHG emissions from the maritime sector through technological innovation and regulatory frameworks.
- Denmark-India Centre of Excellence for Green Shipping: A partnership aimed at promoting sustainable maritime practices through research, technology sharing, and policy development.

5. Challenges and Opportunities

5.1 Challenges:

- Regulatory Divergence: Variations in environmental regulations across countries can hinder uniform implementation of green practices.
- Technological Gaps: Disparities in technological capabilities between developed and developing countries.
- Financial Barriers: Limited access to funding and financial mechanisms for green projects in developing nations.
- Capacity Building: Need for skill development and knowledge transfer to implement advanced green technologies.

5.2 Opportunities:

- Knowledge Sharing: Leveraging global expertise to accelerate the adoption of green technologies.
- Harmonized Regulations: Developing unified standards to streamline international shipping operations.
- Green Financing: Accessing international funds, grants, and incentives to support green maritime projects.

- Innovation and R&D: Collaborative research initiatives to develop cutting-edge green shipping solutions.
- Development of Green Corridors: Establishing international shipping routes powered by sustainable fuels and technologies.

6. Key Discussion Points

6.1 Global Regulatory Alignment:

- Harmonizing international maritime environmental regulations.
- Aligning with IMO's Revised GHG Strategy and other global climate agreements.

6.2 Collaborative Technological Development:

- Joint R&D initiatives to develop and deploy green shipping technologies.
- Sharing best practices for digitalization and automation in maritime operations.

6.3 Green Financing and Investment:

- Leveraging international funds and financial mechanisms to support green maritime projects.
- Public-private partnerships for funding and implementing sustainable shipping solutions.

6.4 Capacity Building and Knowledge Transfer:

- Developing training programs to enhance skills in green shipping technologies.
- Facilitating knowledge exchange between developed and developing countries.

6.5 Development of Green Shipping Corridors:

- Establishing international routes powered by sustainable fuels and technologies.
- Promoting regional cooperation to develop green maritime infrastructure.

7. Expected Outcomes

7.Policy Recommendations: Developing actionable strategies for enhancing international cooperation in maritime sustainability.

Framework for Green Alliances: Establishing collaborative frameworks to promote joint initiatives and harmonized regulations.

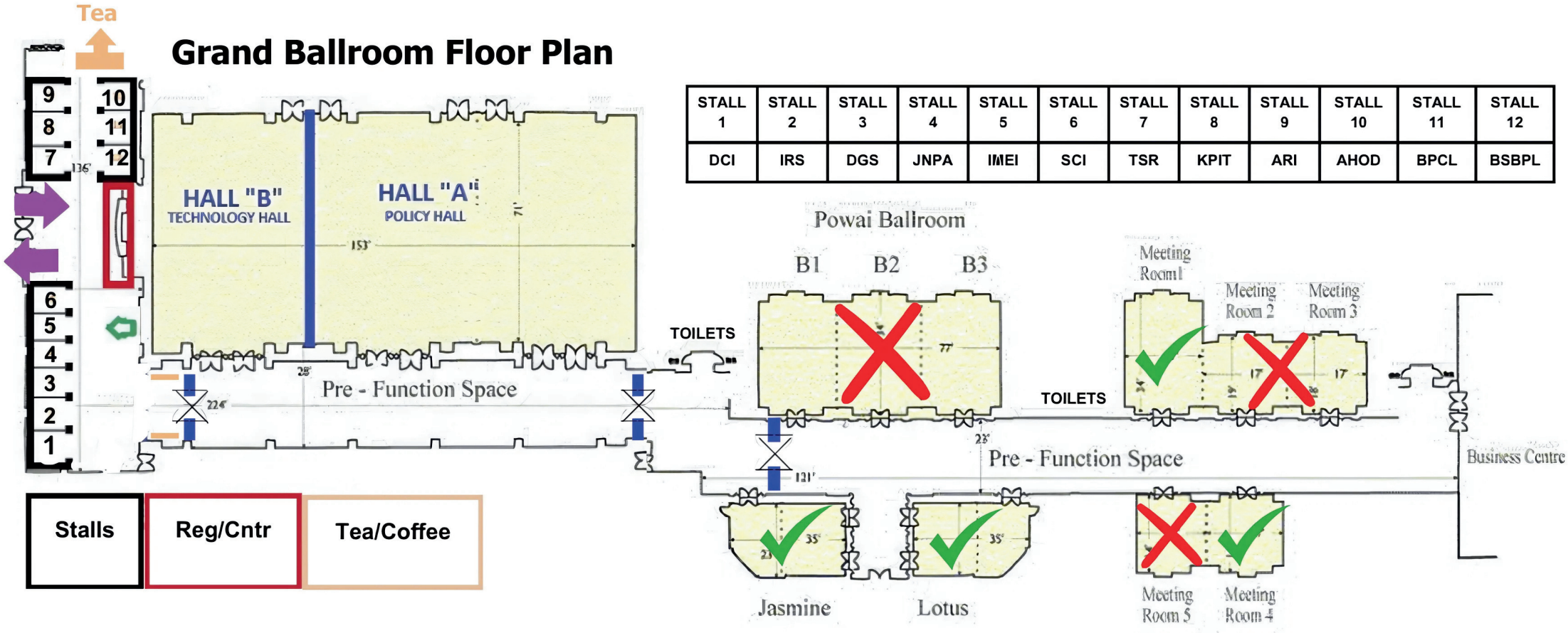
Investment Strategies: Identifying opportunities for international funding and green financing mechanisms.

Capacity Building Programs: Proposing initiatives for skill development and knowledge sharing in green maritime practices.

Development of Green Corridors: Outlining strategies for establishing international shipping routes powered by sustainable technologies.

Strengthening India's Global Position: Positioning India as a key player in international maritime sustainability initiatives and global green alliances.

Grand Ballroom Floor Plan



STALL 1	STALL 2	STALL 3	STALL 4	STALL 5	STALL 6	STALL 7	STALL 8	STALL 9	STALL 10	STALL 11	STALL 12
DCI	IRS	DGS	JNPA	IMEI	SCI	TSR	KPIT	ARI	AHOD	BPCL	BSBPL

DGS - IME(I) GREEN SHIPPING CONCLAVE

"The WESTIN MUMBAI POWAI LAKE" - POWAI - MUMBAI 400087

20TH February 2025 | 0900 onwards |

session slots / hall-wise , rev 2-1

Hotel Westin - Grand Ball room "A" - POLICY HALL						Hotel Westin - Grand Ball room "B" - TECHNOLOGY HALL					
Time	*From*	*To*	Hall	Session	*Event*	*Time*	*From*	*To*	Hall	Session	*Event*
0:30	8:45	9:15	Registration & Networking / Tea coffee								
0:15	9:15	9:30	Hotel Entrance		A Green Salute: Welcoming the Chief Guest with Guard of Honour						
0:45	9:30	10:15	A		Launching the Green Voyage: Inauguration of the Green Conclave						
0:15	10:15	10:30	A		Charting the Green Horizons: Setting the Course for the Green Conclave.						
0:15	10:30	10:45	Tea /Coffee Break								
1:00	10:45	11:45	A	1	Green Gateways: Pioneering Green Transition of Ports	1:00	10:45	11:45	B	2	Green Ships & Smart Tech: Integrating Technology for Sustainable Seas
1:00	11:45	12:45	A	3	Green Energy Waves: Driving Maritime Sustainability Through Green Fuels	1:00	11:45	12:45	B	4	Green Recycling: Paving the Way for a Sustainable Circular Economy
0:45	12:45	13:30	LUNCH BREAK								
1:00	13:30	14:30	A	5	Green Capital: The Role of Green Finance in Maritime Decarbonization	1:20	13:30	14:50	B	11	Green Innovations: Pioneering Sustainable Ports and Fuels (Technical Papers)
1:00	14:30	15:30	A	6	Green Alliances: International Cooperation for Greener Seas	1:20	14:50	16:10	B	12	Green Tech Warriors: Engineering the Future of Decarbonisation (Technical Papers)
0:30	15:30	16:00	Tea / Coffee Break								
1:00	16:00	17:00	A	7	Green Navigators: CEO Forum for Sustainable Maritime Leadership (Chaired by Hon'ble Cabinet Minister , MoPSw)	0:20	16:10	16:30	Tea / Coffee Break		
0:15	17:00	17:15	A	8	Release of Consultative Policy Documents by Hon'ble Union Cabinet Minister.	1:20	16:30	17:50	B	13	Green Horizons: Merging Technology, People & Circular Maritime Practices (Technical Papers)
0:15	17:15	17:30	A	9	Hon'ble Union Cabinet Minister addresses the conclave						
0:30	17:30	18:00	A	10	Sustainable Insights: Highlights & Outcomes of the Green Conclave	0:40	17:50	18:30	B	14	Green Sparks: Igniting Budding Mariners' Innovations in Maritime Sustainability (Student Session)
0:30	18:00	18:30	A	15	Green Blue Print for Maritime India: Policy Makers Leading the Change						
0:30	18:30	19:00	A	16	Harbouring Green Horizons: Valedictory Reflections from the Green Shipping Conclave						
0:30	19:00	19:30	A		Cultural Programme						
1:00	19:30	20:30	Dinner								

Tentative Programme – The schedule is subject to changes based on prevailing circumstances

17th February 2025

MAIN SUPPORTERS

CO-SUPPORTERS

SESSION SUPPORTERS & EXHIBITORS

OUR SUPPORTERS

MEDIA SUPPORTERS

DGS-IME(I)
Green Shipping Conclave 2025
Second Edition

SESSION NOTES
POLICY MAKERS

https://greenshippingconclave.in