

COAST 20 CONNECT 26

WORKSHOP ON THE COASTAL SHIPPING ACT, 2025

Compiled By
Directorate General of Maritime Administration (DGMA)



22nd & 23rd
AUGUST 2026



GMU CAMPUS
Gandhinagar,
Gujarat, India



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CONNECT**

20
26

WORKSHOP ON
THE COASTAL SHIPPING ACT, 2025

Guided by distinguished leaders and driven by a committed organising team, Coast Connect 2026 brings together expertise, experience and purpose to shape the future of India's coastal maritime ecosystem.

CHIEF PATRONS



Shri Shyam Jagannathan, IAS

Director General of Maritime Administration



Prof. (Dr.) S. Shanthakumar

Provost, Gujarat Maritime University



STRONGER COASTS. SMARTER SHIPPING. SUSTAINABLE FUTURE.



**22nd & 23rd
AUGUST 2026**



**09:00 AM – 05:00 PM
(IST)**



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Gandhinagar,
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Ministry of
Ports, Shipping and Waterways
Government of India



COAST CONNECT 2026

WORKSHOP ON THE COASTAL SHIPPING ACT, 2025

Empowering India's Coastal Trade, Logistics, Maritime Regulations

Connect | Collaborate | Innovate | Transform

SESSION DEBRIEF REPORT



22nd and 23rd
August 2026



GMU Campus
Gandhinagar, Gujarat,

Organized by:

Gujarat Maritime University (GMU), Gandhinagar

Directorate General of Maritime Administration (DGMA)

*In collaboration with SETU (Society for Empowerment & Trade
Upgradation), Ahmedabad*

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1. Executive Summary

Coast Connect 2026, held on 22–23 August 2026 at the GNLU Campus, Gandhinagar, was organised by Gujarat Maritime University (GMU) in partnership with the Directorate General of Maritime Administration (DGMA), Ministry of Ports, Shipping and Waterways, Government of India, and SETU (Society for Empowerment & Trade Upgradation), Ahmedabad. The two-day national workshop provided a structured platform for Government, regulators, maritime industry, academia, technology providers and representatives of coastal and fishing communities to deliberate on the implementation of the Coastal Shipping Act, 2025. The workshop was inaugurated in the presence of Shri Shyam Jagannathan, IAS, Director General of Maritime Administration, and Prof. (Dr.) S. Shanthakumar, Provost, GMU, and was organised around four thematic tracks covering logistics and port infrastructure, regulatory complexity, digital infrastructure, and fisheries and livelihoods.



The deliberations established that effective implementation of the Coastal Shipping Act, 2025 would require a coordinated, multimodal and commercially viable approach extending beyond the legislative framework to infrastructure, cargo aggregation, fleet modernisation, financing, skilling, digitalisation and institutional coordination. Track A highlighted the need for port readiness, suitable PPP structures, reliable cargo availability, integration of ports with Dedicated Freight Corridors and Multimodal Logistics Parks, and development of a skilled workforce. Track B focused on regulatory predictability, cabotage, licensing of foreign vessels, maritime security, financing, dispute resolution and alignment of the new framework with other maritime legislation and international obligations. The proposed National Database for Coastal Shipping and its integration with the Maritime Single Window were identified as important enablers for improving transparency and reducing procedural bottlenecks.

The second day broadened the implementation perspective to fisheries, livelihoods and digital transformation. The fisheries sessions emphasised proportionate regulation of fishing vessels,

safety and crew welfare, digital registration, protection of traditional fishing grounds, support for compliance costs and meaningful participation of fishing communities. The digital track highlighted interoperability of maritime data, AIS/VMS integration, Port Community Systems, automation, artificial intelligence, predictive analytics and cybersecurity as foundational requirements for a resilient maritime ecosystem. The collective deliberations underscored the need to translate the Act into time-bound and measurable implementation actions through continuous engagement among DGMA, State Governments, ports, industry, academia, technology providers and community stakeholders. The workshop concluded with a shared vision of building a connected, competitive and inclusive coastal maritime ecosystem, encapsulated in the message:

“Stronger Coasts. Smarter Shipping. Sustainable Future.”

2. Event Overview

Parameter	Details
Event Name	Coast Connect 2026 - Workshop on the Coastal Shipping Act, 2025
Dates	22nd - 23rd August 2026
Timings	09:00 AM – 05:00 PM (IST)
Venue	GNLU Campus, Gandhinagar, Gujarat
Organizers	Gujarat Maritime University (GMU); Directorate General of Maritime Administration (DGMA); SETU - Society for Empowerment & Trade Upgradation, Ahmedabad
Format	4 Thematic Tracks (Presentations + Panel Discussions) across 2 days
Theme	Connect Collaborate Innovate Transform

Background

Coast Connect 2026 was conceived as a national stakeholder platform to facilitate structured dialogue on the implementation of the Coastal Shipping Act, 2025 and the broader transformation of India's coastal maritime ecosystem. The workshop recognised that the effectiveness of the legislative reform would depend on the ability of Government and stakeholders to address the operational, commercial, regulatory, technological and social dimensions of coastal shipping in an integrated manner. The deliberations were therefore designed to move beyond statutory provisions and examine the practical measures required for implementation on the ground.

India's extensive coastline, network of major and non-major ports and strategic maritime location provide a strong foundation for expanding coastal and inland waterway transport. The workshop highlighted that coastal shipping can complement road and rail transport by enabling efficient movement of suitable cargo over longer distances, reducing pressure on congested land-based corridors, improving supply-chain resilience and supporting lower logistics costs. At the same time, the existing ecosystem requires continued strengthening in areas such as port infrastructure, coastal berths, last-mile connectivity, cargo aggregation, vessel availability, fleet modernisation and multimodal integration. The discussions also recognised important linkages with shipbuilding, ship recycling, fisheries, maritime safety, seafarer welfare, logistics services and regional economic development.

The Coastal Shipping Act, 2025 provides a contemporary statutory framework for coastal shipping and is intended to facilitate greater ease of doing business while operating alongside the Merchant Shipping Act, 2025 and other applicable maritime legislation. The workshop discussions highlighted the importance of clearly defining the respective roles and interfaces of the various legal and institutional frameworks governing vessels, ports, inland waterways, fisheries, maritime safety and coastal trade. Particular emphasis was placed on regulatory predictability, simplified licensing procedures, appropriate treatment of foreign vessels, digital processing of applications and alignment with international maritime standards and conventions.

Digital transformation emerged as a cross-cutting requirement for effective implementation. The proposed National Database for Coastal Shipping is envisaged as a centralised repository integrating information on vessels, routes, services, voyages, licensing and other relevant

parameters through APIs with existing systems, including the Maritime Single Window and inland-vessel and port-related databases. In parallel, the workshop highlighted the need to strengthen AIS/VMS-based monitoring, Port Community Systems, electronic documentation, data interoperability, artificial intelligence, automation and cybersecurity. These measures are expected to improve visibility, transparency, operational efficiency, compliance and maritime security.

The workshop also recognised that coastal development must remain inclusive and sensitive to the interests of fishing and other traditional maritime communities. The fisheries sessions highlighted the need for proportionate vessel regulation, accessible registration, appropriate safety standards, financial support for safety equipment, protection of traditional fishing grounds, improved harbour infrastructure and meaningful participation of fishing communities in planning processes. The role of women in fisheries, digital and legal literacy, and the need to integrate modern safety practices with traditional knowledge were also emphasised.

Against this backdrop, Coast Connect 2026 brought together Government institutions, regulators, industry associations, ports and logistics stakeholders, academia, technology providers and community organisations. The four-track structure was designed to examine the principal implementation dimensions of the Coastal Shipping Act, 2025:

Thematic Structure: Four Tracks

- Track A: Logistics Cost Crisis & Port Infrastructure
- Track B: Multi-Regulatory Complexity
- Track C: Digital Infrastructure Gap
- Track D: Fisheries & Livelihood at Stake

The workshop accordingly sought to facilitate convergence of stakeholder perspectives and identify practical interventions that can support the transition from legislative reform to effective implementation.

3. Distinguished Guests & Key Participants

Chief Patrons

- Shri Shyam Jagannathan, IAS - Chief Guest, Directorate General of Maritime Administration (DGMA)
- Prof. (Dr.) S. Shanthakumar - Provost, Gujarat Maritime University (GMU), Gandhinagar

Track A Speakers – Logistics Cost Crisis & Port Infrastructure

- Mr. Ravikanth Yamarthy - Chief Executive Officer, Logistics Skill Council (LSC) (Moderator)
- Mr. Vishal Gupta - Executive Director, Transportation and Logistics, Deloitte India LLP
- Shri Sandesh Shrivastava - Executive Director, DFCCIL, New Delhi
- Mr. Girish Gandhi, Vice President, Infinite Civil Solution
- Dr. Vineet Tiwari - Associate Professor, Indian Institute of Information Technology, Allahabad

Track B Speakers – Multi-Regulatory Complexity

- Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), DGMA
- Mr. Anil Devli – CEO, Indian National Shipowners' Association (INSA) (Moderator, Panel)
- Mr. Aniket Singh, DIG, Coast Guard
- Dr. Abhay Singh – Director (I/c), SMLPA, Gujarat Maritime University
- Ms. Rehana Dhawade – Legal Consultant, Directorate General of Maritime Administration

Track C Speakers – Digital Infrastructure Gap

- Shri Deependra Singh Bisen - Deputy Director general of Maritime Administration
- Prof. Debjit Roy - Operations and Decision Sciences, Indian Institute of Management, Ahmedabad (Moderator, Panel)
- Mr. Santosh Pathak - Partner, Digital Services, Deloitte India LLP
- Mr. Amal Joy - Product Owner, Maersk Training
- Mr. Srinivas Muddu, Director, Data Analytics & Computational Intelligence, Lowe's India

Track D Speakers – Fisheries & Livelihood at Stake

- Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), DGMA
- Dr. Ashish Kumar Jha / Dr. Nikita Gopal – Scientist, CIFT, Veraval, Gujarat / Principal Scientist (Moderator, Panel)
- Mr. Rajdeep Mukherjee – Policy analyst, BOBP-IGO

4. Inaugural Ceremony

The Inaugural Session formally commenced the National Workshop on the Coastal Shipping Act, 2025, organised under the aegis of Gujarat Maritime University and the Directorate General of Maritime Administration (DGMA). The session provided the strategic context for the workshop and highlighted the significance of coastal shipping in strengthening India's maritime and logistics ecosystem. The session brought together representatives from the Government, academia, maritime industry, researchers, industry partners and coastal communities for deliberations on the future of India's coastal shipping sector.



Figure 1. Inaugural Session - Lamp Lighting Ceremony

Address by Prof. Dr. S. Shantakumar - Provost, Gujarat Maritime University (GMU)

Prof. Dr. S. Shantakumar, Provost, Gujarat Maritime University, extended a warm welcome to the distinguished dignitaries, resource persons, policymakers, maritime industry representatives, researchers, academicians, administrative and teaching staff, industry partners and delegates attending the Workshop.

In his address, he stated that the workshop was dedicated to deliberating on the future of India's coastal maritime ecosystem in the context of the landmark Coastal Shipping Act, 2025. He highlighted that coastal shipping represents an energy-efficient, cost-effective and environmentally sustainable mode of freight transportation and has the potential to reduce pressure on congested road and rail corridors, lower logistics costs and enhance supply chain resilience.

He highlighted India's extensive coastline of over 11,000 km and its strategic maritime position, noting that coastal shipping should not be viewed merely as an alternative mode of transportation but as an important component of India's long-term blue economy and maritime development objectives.

Prof. Dr. Shantakumar further observed that India's maritime sector is undergoing a significant transformation, supported by infrastructure development, policy reforms and legislative

measures. In this context, he highlighted the enactment of the **Coastal Shipping Act, 2025**, which provides a dedicated statutory framework for coastal shipping and seeks to facilitate vessel registration, reduce regulatory burden and align domestic shipping practices with international standards.

He also highlighted the importance of multimodal integration and investments in dedicated freight corridors, coastal berths and port connectivity in improving the efficiency of coastal cargo movement and contributing towards reduction in overall logistics costs.



Figure 2. Address by Prof. Dr. S. Shantakumar - Provost, Gujarat Maritime University (GMU)-I

The Provost further focused on the growing role of digitalisation in the maritime sector. He referred to the adoption of national logistics platforms, Vessel Traffic Management Systems (VTMS), real-time vessel tracking and voyage planning systems as important enablers for improving operational efficiency, maritime safety and transparency across the sector.

He also underscored the importance of inclusive maritime governance, particularly in balancing the requirements of commercial shipping with the interests and traditional rights of coastal fishing communities. He highlighted that expansion of maritime trade and shipping infrastructure should be undertaken while ensuring the safety and livelihood security of traditional and artisanal fishing communities.

Referring to international practices, Prof. Dr. Shantakumar stated the potential for India to draw lessons from established coastal and short-sea shipping frameworks adopted by regions such as the European Union, Japan and Northern Europe. He noted that initiatives relating to integrated intermodal shipping, simplified documentation, harmonised customs procedures and dedicated shipping corridors could provide useful reference points for strengthening India's coastal shipping ecosystem.

He further highlighted the importance of promoting environmentally sustainable vessels and technologies, including hybrid, LNG and electric propulsion systems, through appropriate policy support, incentives and infrastructure development. He emphasised the need for coordinated efforts towards fleet modernisation and development of supporting infrastructure at ports.

The Provost also stressed the need for integrated maritime spatial planning to minimise conflicts between shipping lanes and traditional fishing areas, thereby improving navigational safety while protecting the interests of coastal communities. He highlighted the importance of developing smart port and community systems, including single-window data exchange, paperless documentation, automated gate operations and enhanced cybersecurity measures.

He further emphasised the need to bridge the digital infrastructure gap between major and non-major ports to ensure that the benefits of technological advancements are extended across the wider maritime ecosystem.

He informed that Coast Connect 2026 had been structured around four key thematic tracks addressing systemic and operational challenges in coastal shipping. The discussions would cover issues relating to logistics costs, port infrastructure and multimodal connectivity; regulatory and compliance-related complexities; digital infrastructure and maritime technology; and fisheries and livelihood concerns.

He stated that the deliberations would provide a platform to examine port readiness, public-private partnerships, multimodal supply chain integration, regulatory harmonisation, AIS and VMS integration, smart surveillance, cybersecurity and the interface between coastal shipping and fishing communities.

Concluding his address, Prof. Dr. Shantakumar highlighted that the workshop was envisaged as a platform for constructive dialogue among academia, government, industry and grassroots stakeholders. He expressed confidence that collaborative deliberations and exchange of knowledge would contribute towards developing a coastal shipping framework that is commercially competitive, digitally enabled, economically viable, environmentally sustainable and socially inclusive.

He welcomed all participants once again and wished the workshop fruitful, insightful and impactful deliberations.



Figure 3. Figure 2. Address by Prof. Dr. S. Shantakumar - Provost, Gujarat Maritime University (GMU)-II

Address by Shri Aniket Singh - Deputy Inspector General, Indian Coast Guard

Shri Aniket Singh, Deputy Inspector General, Indian Coast Guard, expressed his appreciation for being part of the Coast Connect 2026 and highlighted the complementary relationship between maritime security and the maritime business ecosystem. He observed that while maritime industry focuses on commercial activities, a secure maritime environment is an essential enabler for sustainable business and trade. He emphasised that security and commercial interests are therefore mutually supportive and need to be addressed through an integrated approach.



Figure 4. Address by Shri Aniket Singh - Deputy Inspector General, Indian Coast Guard-I

He welcomed the enactment of the **Coastal Shipping Act, 2025**, observing that the legislation represents an important step towards bringing the regulatory framework for coastal shipping in line with contemporary requirements. He noted that the earlier legal framework governing coastal shipping had originated in a significantly different economic and technological context, whereas the nature and scale of maritime trade and operations have evolved considerably over time.

In this context, he highlighted the importance of periodically reviewing and updating maritime legislation to ensure that the regulatory framework remains relevant to present-day industry practices, operational requirements and the prevailing maritime security environment. He stated that the enactment of the Coastal Shipping Act, 2025 is aligned with the Government's broader efforts towards modernising maritime laws and strengthening the regulatory ecosystem.

Referring to Gujarat's maritime significance, Shri Singh highlighted the State's longstanding association with maritime security and development. He noted the early establishment of the

Indian Coast Guard in Gujarat and its subsequent expansion of operational capabilities in the State.

He further highlighted that the Indian Coast Guard's role extends beyond maritime security and includes a broad range of responsibilities such as maritime law enforcement, search and rescue, pollution response and other maritime safety functions. He highlighted that these functions contribute significantly to maintaining a safe and secure maritime environment, which is essential for the growth of coastal shipping and related commercial activities.

Concluding his address, Shri Singh congratulated Gujarat Maritime University and the organisers for convening the workshop and expressed his appreciation for the opportunity to participate in the deliberations on the Coastal Shipping Act, 2025. He expressed confidence that the workshop would facilitate greater understanding and constructive dialogue among maritime stakeholders and contribute towards strengthening India's coastal shipping ecosystem.



Figure 5. Address by Shri Aniket Singh - Deputy Inspector General, Indian Coast Guard - II

Address by Shri Shyam Jagannathan, IAS - Director General of Maritime Administration

Shri Shyam Jagannathan, IAS, Director General of Maritime Administration, expressed his appreciation to Gujarat Maritime University and the organisers for providing a platform for intellectual engagement among policymakers, industry, academia and other maritime stakeholders. He highlighted that such deliberations provide the foundation for developing appropriate legislative and executive frameworks for the maritime sector, particularly given the inherently international nature of shipping and its critical role in global supply chains.

He acknowledged the significant role of the **Indian Coast Guard** in safeguarding India's extensive coastline and maritime interests. He noted that the Coast Guard's responsibilities extend beyond prevention of illicit activities and include search and rescue, assistance to seafarers, marine pollution response and protection of the marine ecosystem. He emphasised that maritime security and commercial maritime operations are complementary and that a stable and secure maritime environment is essential for the continuity of trade and logistics.

Referring to recent geopolitical developments, including piracy incidents, attacks in the Black Sea region and disruptions in the Red Sea and Suez Canal, he highlighted the direct impact of maritime security on global trade and logistics. He noted that disruptions to major shipping routes can significantly increase voyage durations and logistics costs, thereby underscoring the need for a secure and resilient maritime ecosystem.



Figure 6. Address by Shri Shyam Jagannathan, IAS - Director General of Maritime Administration - I

Coastal Shipping Act, 2025 and Maritime Sector Reforms

The Director General highlighted the enactment of the **Coastal Shipping Act, 2025** as an important step towards establishing a dedicated and contemporary legislative framework for coastal shipping. He noted that the earlier regulatory framework had evolved under significantly different economic and operational conditions and that the new legislation seeks to align the regulatory environment with present-day maritime requirements.

He highlighted that maritime reforms are being undertaken as part of a broader approach to modernise the sector, promote ease of doing business, reduce regulatory burden and facilitate trust-based compliance.

He further highlighted the importance of strengthening India's maritime ecosystem, noting the sector's contribution to the national economy, its role in handling the majority of India's external trade by volume, and India's growing contribution to the global seafarer workforce. He stressed the need to give greater recognition to maritime education, training, skills and human-resource development, particularly through institutions such as Gujarat Maritime University.

Coastal State Engagement and Maritime Development

He highlighted the Government's continued engagement with coastal States through the **Coastal State Workshop** platform. He noted that the initiative provides a structured

mechanism for identifying State-specific opportunities, regulatory requirements and actionable interventions.

He stated that the six broad areas of engagement include **maritime training, ship recycling, shipbuilding, maritime growth, sustainability, and maritime security and Coastal shipping**. He highlighted that these areas collectively cover the major opportunities and challenges faced by coastal States and that the engagement would continue in partnership with State Governments and institutions such as Gujarat Maritime University.

GIFT City and International Maritime Services

The Director General highlighted the potential of **GIFT City** as an enabling platform for developing India as a globally competitive maritime financial and services hub. He noted that the regulatory and financial framework available at GIFT City provides greater flexibility for international businesses and can support the growth of maritime finance and related services.

He also referred to emerging initiatives to strengthen India's position as an international maritime hub, including international ship repair facilities and measures to facilitate vessel registration and other maritime services.

Ship Recycling and Shipbuilding

Director General highlighted India's position as a global leader in ship recycling and noted that the sector provides significant opportunities for the circular economy and sustainable maritime development. He informed that a large proportion of the material from recycled vessels can be recovered and reused and emphasised the importance of maintaining international standards, including compliance with the **Hong Kong Convention**.

He highlighted the **Ship Recycling Credit Note** initiative as a measure aimed at incentivising ship recycling in India and supporting reinvestment in domestic shipbuilding. He further emphasised the need for adequate training, certification, hazardous-material management, occupational safety and social infrastructure for workers engaged in the ship recycling sector.

He particularly encouraged Gujarat Maritime University to engage with the ship recycling sector in areas relating to regulatory compliance, standardisation, training, certification and capacity building.

Maritime Decarbonisation and Green Ports

The Director General highlighted the **National Maritime Decarbonization Framework** and emphasised the growing importance of green ships and green ports in achieving sustainable maritime growth. He noted that increasing vessel size, cargo volumes and port traffic would require ports to adopt more efficient, sustainable and technologically enabled operational practices.

He stressed the need for ports to progressively reduce their carbon footprint and improve energy efficiency, while also creating opportunities for carbon-credit generation and monetisation as India's carbon market develops.

He further highlighted the importance of developing common and globally aligned standards for maritime decarbonisation, particularly considering the increasing environmental requirements applicable to vessels operating in international waters.



Figure 7. Address by Shri Shyam Jagannathan, IAS - Director General of Maritime Administration - II

Energy Security and Green Maritime Growth

He highlighted the close relationship between energy security and economic growth. He noted that disruptions in global energy supplies can have significant implications for industrial activity, logistics and the wider economy.

In this context, he highlighted India's significant potential in solar energy and the development of green hydrogen, green ammonia and other renewable-energy-based fuels. He observed that the transition towards cleaner fuels, supported by LNG as a transitional fuel, could contribute to strengthening India's energy security while positioning the country as a potential supplier of green energy to other economies.

Maritime Security and Port Security

The Director General highlighted the increasing importance of port security in view of the strategic and economic significance of ports. He referred to the evolving institutional framework for strengthening port security and emphasised that ports must remain safe, secure and operational to ensure continuity of trade.

He also highlighted the need to strengthen security arrangements for traditional and mechanised sailing vessels operating from Gujarat and other coastal regions. He emphasised the importance of extending appropriate social-security and insurance mechanisms to seafarers engaged in this sector.

Seafarer Welfare, Inclusion and Capacity Building

The need to strengthen the welfare and social-security framework for seafarers, particularly those working in informal and traditional maritime sectors. He stressed the importance of adequate insurance, welfare infrastructure and protection for seafarers and their families.

He also highlighted initiatives aimed at promoting the physical, social and mental well-being of seafarers, including programmes focusing on financial management, social communication and overall personal well-being.

Further, he emphasised the need to increase the participation of women in the maritime sector and ensure equal professional opportunities. He also cautioned stakeholders against fraudulent recruitment practices and the involvement of intermediaries who charge seafarers for employment opportunities. He highlighted the need for greater awareness and regulatory oversight to prevent exploitation and cases of abandoned seafarers.

Maritime Training and Pilotage

The Director General stressed the importance of strengthening quality assurance in maritime training and preventing fraudulent or unauthorised training institutions from operating. He emphasised the need for approved training providers, transparent processes and greater awareness among aspiring seafarers.

He also highlighted the importance of reviewing and strengthening **pilotage regulations**, given the critical role of pilots in ensuring safe navigation of vessels within ports and confined waterways. Referring to international maritime incidents, he emphasised the need for robust pilotage standards, appropriate competencies and clear operational responsibilities.

Maritime Arbitration and Digital Initiatives

The importance of strengthening maritime arbitration and alternative dispute-resolution mechanisms as maritime trade and traffic increase. He observed that efficient dispute-resolution mechanisms would facilitate quicker settlement of commercial and contractual disputes and support the development of a more competitive maritime business environment.

He also highlighted the potential of maritime knowledge and digital platforms to facilitate information sharing, capacity building and stakeholder engagement. He encouraged Gujarat Maritime University to actively participate in such initiatives.

Promotion of Coastal Shipping and Modal Shift

The Director General emphasised the need to promote **modal shift towards coastal shipping**, noting the cost and efficiency advantages of moving cargo through waterways. He highlighted the relevance of international examples such as the European Union's Marco Polo programme and similar initiatives that incentivise the shift of freight from road to more efficient modes.

He informed that a **Gujarat-specific action plan for promoting modal shift** is being considered and stated that the same would be pursued through continued engagement under the Coastal State Workshop framework.

Shipbuilding and Maritime Clusters

The Government's efforts to promote domestic shipbuilding through shipbuilding clusters, financial incentives, low-cost capital and demand aggregation. He noted the potential for Gujarat to emerge as a major shipbuilding and maritime services hub, alongside other emerging clusters across the country.

He encouraged Gujarat Maritime University to explore opportunities for capacity building, training and certification in shipbuilding and ship recycling, thereby supporting the development of skilled manpower for the expanding maritime industry.

Concluding his address, Director General emphasised that India is undertaking comprehensive reforms across the maritime sector, covering legislation, coastal shipping, shipbuilding, ship recycling, port development, maritime security, decarbonisation, seafarer welfare and capacity building. He expressed confidence that Gujarat, with its strong maritime ecosystem, infrastructure and institutional capabilities, would play a significant role in India's maritime growth. He reiterated the Directorate General of Maritime Administration's commitment to continued engagement with Gujarat Maritime University and other stakeholders for knowledge dissemination, capacity building and effective implementation of the evolving maritime regulatory framework.



Vote of Thanks by Dr. Chirag Patel - Registrar, Gujarat Maritime University

Dr. Chirag Patel, Registrar, Gujarat Maritime University, proposed the Vote of Thanks at the conclusion of the Inaugural Session of the Coast Connect, 2026 Gujarat on the **Coastal Shipping Act, 2025**.

At the outset, he expressed his sincere gratitude to **Shri Shyam Jagannathan, IAS, Director General of Shipping**, for gracing the occasion and sharing his valuable insights on the evolving maritime sector. He stated that his presence and guidance added significant value to the workshop and would inspire stakeholders in their efforts towards strengthening India's maritime sector and promoting coastal shipping.

He also placed on record his appreciation for **Prof. Dr. S. Shantakumar, Provost, Gujarat Maritime University**, for his constant guidance and support in organising the workshop and furthering the University's commitment towards meaningful academic, professional and industry-oriented initiatives.

Dr. Patel highlighted that the **Coastal Shipping Act, 2025** has wide-ranging implications for legal and regulatory institutions, ports, shipping companies, logistics operators, seafarers,

coastal communities and the broader maritime economy. He noted that the workshop was therefore particularly relevant in providing a platform for stakeholders to deliberate on the various dimensions of the legislation and its implementation.

He informed that the two-day workshop comprised **four thematic tracks** covering key aspects of coastal shipping and brought together distinguished speakers, experts and stakeholders from across the country. He expressed confidence that the deliberations would provide valuable insights and facilitate meaningful exchange of knowledge and perspectives.



Figure 8. Vote of Thanks by Dr. Chirag Patel - Registrar, Gujarat Maritime University

He conveyed his sincere appreciation to all speakers and resource persons for taking time from their schedules to participate in the workshop and share their expertise, noting that their contributions would form an important foundation for the success of the workshop.

Dr. Patel also extended his thanks to all participants, delegates, faculty members, maritime professionals, students, researchers and officials for their participation. He encouraged the participants to actively engage in the discussions, raise relevant questions, exchange ideas and make full use of the platform.

He acknowledged the dedicated efforts of the **Gujarat Maritime University team and the organising committee** in facilitating the workshop. He reiterated that GMU, as an academic institution, recognises its responsibility to create platforms where academia, Government, regulators, industry and maritime professionals can collectively deliberate on contemporary issues affecting the maritime sector.

Concluding his address, Dr. Patel expressed the hope that the workshop would contribute meaningfully towards a better understanding and effective implementation of the **Coastal Shipping Act, 2025**, and further strengthen collaboration among key maritime stakeholders. He

once again conveyed his gratitude to all distinguished speakers, experts, delegates and participants for their gracious presence and active participation.

5. Day 1 Sessions – 22nd August 2026

5.1 Track A: Logistics Cost Crisis & Port Infrastructure

Core Focus: Examines the operational, commercial, and institutional dimensions of implementing the Coastal Shipping Act — from port readiness and PPP models to supply-chain integration and human resource strategy.

Key Discussion Areas

- Port readiness and infrastructure requirements
- PPP models and commercial frameworks
- Supply-chain integration and multimodal connectivity
- Operational implementation and industry readiness
- Human resource strategy for coastal shipping

5.1.1 Presentation (11:00 – 12:00)

Presentation by Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), Directorate General of Maritime Administration

Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), Directorate General of Maritime Administration, delivered a presentation providing an overview of India's coastal shipping ecosystem, the existing regulatory framework, recent policy initiatives and the key provisions and implementation measures under the **Coastal Shipping Act, 2025**.

At the outset, he highlighted India's extensive coastline of approximately **11,000 km**, supported by 12 major ports and over 200 non-major ports. He noted the significant growth in port cargo traffic, with approximately 1,342 million metric tonnes handled during 2024-25, reflecting the increasing importance of maritime transport to India's logistics ecosystem.

He highlighted that coastal shipping currently accounts for approximately **20% of India's port cargo movement** and noted the significant potential for further growth. He also drew attention to the age profile of the coastal fleet, observing that nearly 50% of vessels are more than 20 years old and contribute a substantial share of the fleet's gross tonnage. This, he noted, underscores the need for fleet modernisation and investment in new and efficient vessels.

He further highlighted the existing fleet structure, noting that smaller vessels constitute a significant proportion of the fleet by number, while larger vessels account for a substantial share of the overall tonnage. This indicates the need for a balanced fleet development strategy aligned with the nature and volume of cargo being transported.

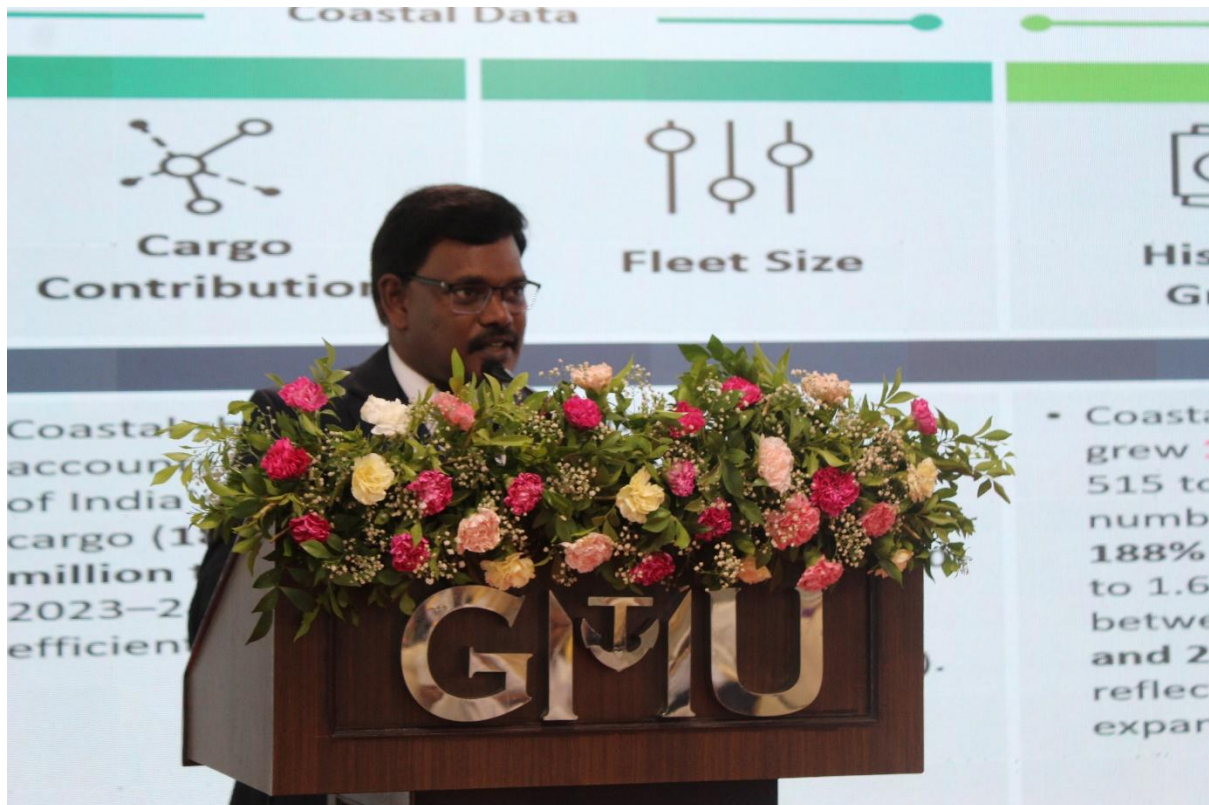


Figure 9. Presentation by Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), Directorate General of Maritime Administration- I

Coastal Shipping Growth and Future Requirements

He highlighted the projected growth in coastal cargo movement under the **Maritime India Vision 2030 and Amrit Kaal Vision 2047** also noted that coastal cargo movement is envisaged to increase substantially by 2047, requiring significant expansion of the coastal fleet, port infrastructure, coastal berths, multimodal connectivity and supporting logistics infrastructure.

He emphasised that achieving the projected growth would require coordinated interventions across the entire coastal shipping ecosystem, including vessel capacity, infrastructure, regulatory facilitation, digital systems and cargo aggregation.

Coastal Shipping Ecosystem and Allied Sectors

The presentation highlighted the interdependence of coastal shipping with various allied sectors, including fisheries, mechanised sailing vessels, port infrastructure, shipbuilding, ship recycling, maritime safety and sustainable shipping.

He particularly highlighted the importance of ensuring safety and security of fishing vessels and traditional maritime communities. He informed that the Directorate General of Maritime Administration is working towards strengthening the regulatory framework for mechanised sailing vessels and fishing vessels, including measures relating to safety, vessel construction and operational requirements.

He noted the significance of Gujarat in this context, given its large population of traditional and mechanised sailing vessel operators and its longstanding maritime heritage.

Policy and Regulatory Measures

He outlined various measures undertaken by the Government to strengthen the maritime and coastal shipping sector, including initiatives relating to shipbuilding, infrastructure development, financing and regulatory reforms.

He highlighted the importance of the **Coastal Shipping Act, 2025** in providing a contemporary framework for coastal shipping and facilitating greater ease of doing business. He noted that the Act seeks to complement the **Merchant Shipping Act, 2025**, with coastal shipping primarily focusing on the trade and commercial aspects, while vessel safety, certification, registration and related technical requirements continue to be governed under the broader maritime regulatory framework.

He also highlighted the importance of integrating inland waterways with coastal shipping to facilitate seamless movement of cargo between inland and coastal waters.

Regulatory Framework for Coastal Shipping

The presentation provided an overview of the domestic and international regulatory framework applicable to coastal shipping. Highlighted the relevance of the **Merchant Shipping Act, 2025, Coastal Shipping Act, 2025, Indian Ports Act, 2025, Inland Vessels Act, 2021**, and other relevant maritime legislation and regulations.

He also referred to the **Marine Aids to Navigation Act, 2021**, regulations concerning Restricted Service Vessels and other relevant regulatory instruments governing different categories of vessels operating in coastal and territorial waters.

At the international level, he highlighted the relevance of bilateral and multilateral agreements and arrangements facilitating coastal and regional maritime trade, including the **Protocol on Inland Water Transit and Trade** and regional maritime cooperation arrangements.

Coastal Cargo Promotion Scheme

Presentation highlighted the Government's focus on increasing the modal share of coastal and inland waterways transport. He informed that the **Coastal Cargo Promotion Scheme (CCPS)** has been formulated following consultations with States and stakeholders and is under consideration for further processing and allocation of funds.

He stated that the primary objective of the scheme is to increase the modal share of coastal and inland waterways transport from **~6% to 12% by 2047**. The proposed framework includes incentives for coastal shipping operators, cargo owners and multimodal transport operators to encourage movement of cargo through coastal and inland waterways.

He explained that the proposed incentives would primarily support **new routes and new cargo movements**, with the objective of making coastal shipping commercially viable and encouraging a sustained modal shift from road and rail to waterways.

Digitalisation and National Database for Coastal Shipping

A significant part of the presentation focused on the proposed **National Database for Coastal Shipping (NDCS)**. Highlighting the need for a centralised digital repository to integrate coastal shipping-related information currently maintained across multiple organisations and platforms.

He explained that the proposed database would facilitate real-time visibility, regulatory compliance, data-driven decision-making and improved transparency. The platform is envisaged to integrate data relating to vessel registration, routes, services, voyage information, licensing and other relevant coastal shipping parameters.

He further informed that the database would integrate information from various existing digital platforms through Application Programming Interfaces (APIs), including relevant port, logistics, vessel registration, Maritime Single Window and inland vessel databases. This would enable consolidation of fragmented maritime data and provide a unified information framework for coastal shipping.

National Coastal and Inland Shipping Strategic Plan

Shri Moka also highlighted the proposed **National Coastal and Inland Shipping Strategic Plan**, which is intended to provide a long-term roadmap for the development of coastal and inland waterway transport.

He informed that an expert committee is being constituted to formulate the strategic plan. The exercise would include mapping of inland waterways, assessment of operational requirements, long-term traffic forecasting, benchmarking against international best practices, route expansion, multimodal integration, vessel development and formulation of an appropriate participation framework.

Mechanised Sailing Vessels and Seafarer Welfare

The presentation highlighted the specific challenges faced by seafarers working on mechanised sailing vessels, particularly in relation to insurance and welfare protection.

Shri Moka noted that seafarers working on conventional merchant vessels are generally covered under established insurance and welfare mechanisms, whereas seafarers working on mechanised sailing vessels often have significantly lower levels of financial protection. He emphasised the need to address this disparity and informed that measures are being considered to establish an appropriate **welfare framework for seafarers engaged on mechanised sailing vessels**.

He highlighted the importance of extending suitable insurance and welfare measures while recognising the distinct operational and socio-economic characteristics of this segment.

Coastal State Workshops

He highlighted the role of the **Coastal State Workshops** as a structured mechanism for strengthening coordination between the Central Government, State Governments and maritime stakeholders.

He explained that the workshops seek to identify implementation bottlenecks, create awareness regarding Central Government schemes and policies, facilitate coordination among different State departments and develop State-specific action plans for maritime sector development.

He noted that the first such workshop was organised in Goa and that subsequent workshops are being undertaken in other coastal States, including Gujarat, in collaboration with relevant State institutions and Gujarat Maritime University.

Concluding his presentation, he emphasised that the successful implementation of the Coastal Shipping Act, 2025 would require coordinated efforts across regulatory authorities, ports, State Governments, industry, logistics operators and other maritime stakeholders. He highlighted that regulatory reforms, digitalisation, fleet modernisation, infrastructure development, cargo aggregation and stakeholder coordination would collectively be critical to achieving India's long-term coastal shipping and modal-shift objectives.



Address by Mr. Ravikanth Yamarthy, Chief Executive Officer, Logistics Sector Skill Council (LSC)

Shri Ravikanth Yamarthy, Chief Executive Officer, Logistics Sector Skill Council (LSC), shared his perspective on the importance of skilled manpower in strengthening the logistics and maritime sectors. He highlighted that while processes, systems and infrastructure are important components of the logistics ecosystem, availability of adequately skilled human resources is equally critical for improving efficiency and reducing logistics costs.

He noted that India's logistics cost, which was earlier estimated at around 14% of GDP, has been recalculated at ~9%, with the broader objective of bringing it closer to the global average of around 6%. In this context, he emphasised the important role of skilled professionals and students in improving operational efficiency and contributing towards reduction in logistics costs.

Highlighting the mandate of the Logistics Sector Skill Council, Shri Yamarthy stated that the Council was established under the Ministry of Skill Development and Entrepreneurship, with coordination with the Ministry of Commerce and Industry, to address the skill requirements of the logistics sector. He observed that logistics has traditionally not been perceived as an aspirational career option, with the sector often being associated primarily with drivers, loaders and other entry-level occupations. He emphasised the need to create greater awareness about the diverse career opportunities available across the logistics ecosystem and make the sector more aspirational for young professionals.

He stated that the logistics sector has been broadly scoped into **12 sub-sectors**, including warehousing, land transportation, e-commerce and express logistics, inland waterways and marine services, supply chain management, post-harvest logistics, liquid logistics, rail logistics, cold chain, port operations, container freight stations and air cargo. He highlighted that logistics is among the largest employment-generating sectors in India, with approximately **95 lakh**

people currently employed in the freight segment, and an estimated additional requirement of around **43 lakh skilled personnel by 2030**.

In this regard, he highlighted the Government's initiative to establish a **National Logistics Workforce Strategy Task Force**, jointly led by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, and the Ministry of Skill Development and Entrepreneurship, to address the emerging workforce requirements of the sector.



Figure 10. Address by Mr. Ravikanth Yamarthy, Chief Executive Officer, Logistics Sector Skill Council (LSC)

Shri Yamarthy further highlighted the existing skill development initiatives undertaken by the Logistics Sector Skill Council. He noted that the Council has developed structured courses in logistics and has partnered with educational institutions, including Gujarat Maritime University (GMU), to expand the availability of logistics-related programmes. He observed that there is presently no dedicated Maritime Sector Skill Council and suggested that the workshop could provide an opportunity to explore the establishment of such a council in collaboration with GMU, the Ministry of Skill Development and Entrepreneurship and the Directorate General of Maritime Administration (DGMA).

He also highlighted the need for **short-term, industry-oriented training programmes** to address immediate skill requirements. He stated that the Council has certified a significant number of candidates in the logistics sector and has supported the introduction of structured undergraduate programmes in logistics. He further highlighted the establishment of Centres of Excellence equipped with modern technology to provide students with practical exposure to the logistics sector.

Referring to apprenticeship opportunities, Shri Yamarthy explained that amendments to the Apprenticeship framework have extended apprenticeship requirements to service-sector

establishments. He noted that establishments are required to engage apprentices in accordance with the applicable provisions and highlighted the role of apprenticeship in providing students with practical industry exposure. He offered to collaborate with GMU and maritime stakeholders in developing **optional trades relevant to the maritime sector**, which could subsequently be approved by the Government and used for facilitating apprenticeship engagement.

He further highlighted the potential for integrating apprenticeship into academic programmes, wherein students could undertake classroom-based education followed by industry-based apprenticeship. He noted that such arrangements could provide benefits to both students and employers, including financial incentives available under the **National Apprenticeship Promotion Scheme**. He also highlighted that employers could derive financial benefits from engaging apprentices, with eligible expenditure potentially being considered under CSR provisions, subject to applicable rules.

Shri Yamarthy also highlighted initiatives undertaken to make logistics education more accessible and aspirational. He noted that logistics-related courses have been introduced through the **National Institute of Open Schooling (NIOS)**, enabling students at the secondary and senior-secondary levels to pursue logistics-related subjects. He further highlighted the Council's efforts towards facilitating international education and employment opportunities through partnerships with overseas universities.

Concluding his address, Shri Yamarthy proposed **four key areas of collaboration** between **LSC, GMU and maritime stakeholders**: establishment of a Centre of Excellence for maritime and logistics skills; development of optional trades to facilitate apprenticeships in the maritime sector; exploration of establishing a dedicated **Maritime Sector Skill Council**; and development of industry-oriented training programmes to meet the emerging manpower requirements of the maritime sector.

He noted that Government support and funding are available for establishment of a dedicated sector skill council and expressed willingness to facilitate discussions with the Ministry of Skill Development and Entrepreneurship. He emphasised that greater collaboration among government institutions, academia and industry would be essential for developing a skilled workforce and strengthening India's maritime and logistics ecosystem.

5.1.2 Panel Discussion (12:15 - 13:15)

The panel discussion was moderated by Shri Ravikanth Yamarthy, Chief Executive Officer, Logistics Sector Skill Council (LSC), and included Shri Vishal Gupta, Executive Director - Transportation and Logistics, Deloitte India LLP; Shri Sandesh Shrivastava, Executive Director, Dedicated Freight Corridor Corporation of India (DFCC), New Delhi; Mr. Girish Chandra Gandhi, Vice President, Infinite Civil solution Pvt Ltd., Dr. Vineet Tiwari, Associate Professor, Indian Institute of Information Technology, Allahabad. The discussion focused on key aspects relating to the development and operationalisation of coastal shipping and multimodal logistics, including operational and commercial frameworks, infrastructure development, cargo aggregation, investment, PPP models, sustainability, skilling and research support.

Shri Ravikanth Yamarthy, while moderating the discussion, highlighted the need to move beyond the enactment of the **Coastal Shipping Act, 2025** towards its effective implementation. He noted that operationalisation of coastal shipping would require coordinated efforts towards multimodal integration, infrastructure development, industry

readiness, investment and skilling. He also highlighted the importance of bringing together relevant stakeholders to develop an integrated ecosystem for coastal and inland waterways.



Figure 11. Shri Ravikanth Yamarthy, while moderating the discussion

On infrastructure development and public-private participation, **Mr. Girish Chandra Gandhi** highlighted that modernisation and expansion of maritime infrastructure could not be undertaken solely through public investment and would require greater participation of the private sector through suitable **Public-Private Partnership (PPP) models**. He emphasised that infrastructure development would need to be accompanied by automation, digitalisation, cybersecurity and adoption of environmentally sustainable practices. He further highlighted the importance of considering decarbonisation and greenhouse gas reduction requirements in view of evolving international maritime regulations.

Shri Gandhi further emphasised the need for a **holistic approach to port-led development**, including augmentation of existing ports as well as development of Greenfield ports. He observed that modern ports should be supported by associated facilities such as ship repair and maintenance, logistics infrastructure, tourism and industrial activities, thereby contributing to wider regional economic development.



Figure 12. Mr. Girish Chandra Gandhi, Vice President - Panellist

Shri Vishal Gupta highlighted that, following the enactment of the Coastal Shipping Act, 2025, the focus should now be on effective implementation and creation of a commercially viable ecosystem. He identified **cargo availability and cargo assurance** as one of the key risks to the successful modal shift from road and rail to coastal shipping. He emphasised that infrastructure and services would not be utilised effectively unless adequate and predictable cargo volumes are available. In this context, he stressed the need for cargo aggregation and mechanisms that provide greater assurance of cargo movement, thereby improving the commercial viability of coastal shipping projects.

Shri Gupta further highlighted that private sector investment would depend primarily on the **balance between risk and revenue**. He noted that there is no single PPP model suitable for all projects and that the contractual and financial structure would need to be customised according to the nature of the cargo, location and business requirements. He emphasised the importance of appropriate allocation of revenue, operational, expenditure, policy and third-party risks between the public and private sectors to ensure commercially sustainable projects.



Figure 13. Shri Vishal Gupta, Executive Director - Transportation and Logistics, Deloitte India LLP - Panellist

Shri Sandesh Shrivastava highlighted the role of the **Eastern and Western Dedicated Freight Corridors (DFCs)** in facilitating efficient movement of freight and supporting connectivity with major ports. He noted that the Western DFC connects important industrial and port locations in Gujarat and Maharashtra, while the broader freight corridor network is supported by cargo aggregation points and stations. He emphasised that reliable, predictable and efficient movement of cargo from hinterland locations to ports would be critical for strengthening the interface between DFCs and coastal shipping.

Shri Shrivastava further highlighted that the DFC network currently handles a significant share of freight traffic despite constituting a relatively small proportion of the overall railway network. He emphasised that DFCs and coastal shipping should be viewed as **complementary modes rather than competing modes**, with the objective of creating seamless end-to-end logistics solutions from the point of origin to the final destination.

The discussion also covered the role of **Multimodal Logistics Parks (MMLPs)** in facilitating integration between different modes of transport. Shri Shrivastava highlighted the importance of developing adequate road and rail connectivity, power, water and other supporting infrastructure at MMLP locations. He noted that availability of land and last-mile connectivity remain critical factors affecting the timely development of logistics infrastructure.

It was further highlighted that greater integration among **MMLPs, DFCs, ports, national highways, expressways and inland waterways** would be necessary to facilitate seamless cargo movement. Such integration would help reduce congestion on roads, improve logistics efficiency and contribute towards lowering carbon emissions. The panellists observed that strengthening multimodal connectivity would be essential for achieving the Government's long-term objectives relating to reduction in logistics costs and enhancement of India's logistics competitiveness.



Figure 14. Shri Sandesh Shrivastava, Executive Director, Dedicated Freight Corridor Corporation of India (DFCC) - Panellist

From the academic and research perspective, **Dr. Vineet Tiwari** highlighted the need for developing India-specific methodologies for assessment of logistics costs and port capacity. He observed that existing international cost-estimation models may not adequately capture the specific characteristics of the Indian logistics ecosystem. He also highlighted the importance of incorporating **carbon costs and environmental externalities** into logistics cost assessments to enable more comprehensive evaluation of different modes of transportation.

Dr. Tiwari further highlighted the absence of a uniform methodology for assessing port capacity and noted that different approaches, including queuing models and computer-based simulations, are currently being used. He emphasised the need for standardised methodologies, particularly for small and medium-sized ports, to support evidence-based infrastructure planning.

He also highlighted the importance of strengthening **data collection and data-driven decision-making** in the maritime and logistics sectors. He noted that improved data availability would support the application of Artificial Intelligence (AI), Machine Learning (ML) and predictive analytics for forecasting cargo flows, vessel movements, congestion and infrastructure requirements.

On sustainability, Dr. Tiwari highlighted the need to incorporate environmental considerations across the entire maritime logistics ecosystem, including ports, terminals, ship recycling and other related activities. He observed that exporters may increasingly be subject to multiple carbon-related requirements under domestic and international frameworks and emphasised the need for a coordinated approach towards carbon accounting and pricing.



Figure 15. Dr. Vineet Tiwari, Associate Professor, Indian Institute of Information Technology, Allahabad - Panellist

Shri Ravikanth Yamarthy also highlighted the importance of addressing the skill requirements of the logistics sector. He noted that shortage of skilled drivers and other logistics professionals remains a significant challenge and emphasised the need to make logistics occupations more aspirational through structured training, improved career pathways and enhanced employment opportunities. He highlighted ongoing initiatives for driver training and the need to improve the dignity and attractiveness associated with logistics-related occupations.

The panel also discussed the importance of **digitalisation and standardised documentation** for facilitating multimodal logistics. Shri Yamarthy highlighted the need to improve awareness among transporters, cargo owners and other stakeholders regarding multimodal documentation and integrated logistics systems. He noted that various Government initiatives are already supporting the integration of systems across Ministries and that further integration would facilitate seamless movement of cargo across different modes.

The potential for greater use of **coastal shipping for project cargo and heavy machinery** was also discussed. The panellists observed that coastal shipping could provide an efficient alternative for long-distance movement of heavy and oversized cargo, particularly where road transportation involves infrastructure constraints. However, adequate port infrastructure and robust last-mile road connectivity would be necessary to support such movement.

The discussion further highlighted the importance of ensuring that roads and bridges are capable of handling heavy and specialised cargo. The panellists noted that differences in State-level regulations and operational protocols may also affect seamless movement of cargo and highlighted the need for greater coordination and harmonisation.

The panel also discussed the need to ensure that infrastructure development projects adequately address the concerns of **local communities and project-affected persons**. Shri

Yamarthy highlighted the importance of skilling and reskilling local communities so that they can participate in employment opportunities generated by infrastructure projects. He noted that training could be provided in areas such as construction, plumbing, logistics and other relevant trades, depending upon the requirements of the local community and the project.

In this context, highlighted that Government schemes, State-level programmes and CSR initiatives could be leveraged for establishment of training facilities and development of local skills. He emphasised that the focus should be on ensuring measurable employment outcomes and enabling affected communities to participate in the emerging economic opportunities.



Figure 16. Logistics Cost Crisis & Port Infrastructure - Panel

Concluding the discussion, **Shri Ravikanth Yamarthy** highlighted that the successful development of coastal shipping would require an **integrated, multimodal and commercially viable ecosystem**, supported by appropriate infrastructure, reliable cargo availability, suitable PPP frameworks, digital systems, skilled manpower and sustainable practices. The panellists agreed on the importance of continued coordination among Central and State Governments, ports, railways, logistics operators, industry, academia and local communities to achieve the objectives of increasing modal shift towards coastal and inland waterways, reducing logistics costs and strengthening India's maritime and logistics competitiveness.

5.2 Track B: Multi-Regulatory Complexity

Core Focus: Unpacks the statutory provisions of the Act, cabotage rules, vessel registration, coastal zone regulations, dispute resolution, and alignment with international maritime law, including UNCLOS and IMO conventions.

Key Discussion Areas

- Statutory provisions and implementation implications
- Cabotage rules and vessel registration

- Coastal zone regulations and compliance
- Dispute resolution, enforcement and governance
- Alignment with UNCLOS and IMO conventions

5.2.1 Presentation (14:15 – 15:15)

Address by Mr. Anil Devli – Chief Executive Officer, Indian National Shipowners' Association (INSA)

Mr. Anil Devli, Chief Executive Officer, Indian National Shipowners' Association (INSA), expressed his appreciation to Gujarat Maritime University and the organisers for providing an opportunity to interact with faculty members, students and maritime stakeholders. He highlighted the importance of continued engagement between academia and the maritime industry for strengthening awareness and understanding of contemporary issues affecting Indian shipping.

Mr. Devli stated that his address would focus on **cabotage and its relevance to the Indian shipping sector**, noting that the concept is often misunderstood. He explained that cabotage broadly refers to the carriage of passengers or cargo between two locations within the territory of a country and is generally intended to protect domestic shipping interests and strengthen national maritime capabilities.

Drawing a comparison with the aviation sector, he observed that foreign airlines are generally not permitted to undertake domestic passenger transportation between two Indian locations. He highlighted that similar principles are adopted across several sectors to protect domestic industry and ensure that economic value generated through domestic activities remains within the national economy.

In this context, Mr. Devli highlighted that cabotage should be viewed not merely as a regulatory restriction but as an **instrument for supporting domestic shipping capacity, economic value retention and national security**. He noted that several countries have adopted cabotage measures in different forms to protect their domestic maritime industries.

He further highlighted the importance of strengthening the **Indian-flag fleet**. He observed that although ships may be owned by entities located in different jurisdictions and may operate under different flags, a stronger Indian-flag fleet would ensure that a greater proportion of the economic value generated through shipping activities remains within India. He stated that expenditure on ship operations generates wider economic activity through ship repair, maritime services, professional services, employment and other associated activities.

Mr. Devli noted that a substantial proportion of India's international cargo is currently carried by foreign-flag vessels and referred to the significant freight expenditure incurred by India on foreign shipping companies. He emphasised that increasing the participation of Indian shipping companies in the carriage of Indian cargo would enable a greater share of this economic value to remain within the domestic economy.

He explained that the existing framework provides Indian shipping companies with a **Right of First Refusal (RoFR)** in certain tendering processes. Under this mechanism, where an Indian shipping company participates in a tender and a foreign-flag vessel emerges as the lowest bidder, the Indian company may be provided an opportunity to match the lowest commercial offer, subject to the applicable conditions. However, he observed that Indian shipping

companies often face difficulty in matching foreign competitors due to differences in the cost structures applicable to Indian-flag and foreign-flag vessels.



Figure 17. Address by Mr. Anil Devli – Chief Executive Officer, Indian National Shipowners' Association (INSA)

In this regard, Mr. Devli highlighted the impact of **duties and taxes applicable to Indian-flag vessels**. He referred to costs associated with IGST on vessel acquisition, duties and taxes arising during conversion and reconversion of vessels between foreign-going and coastal operations, taxation of ship repair and maintenance services undertaken outside India, and differences in taxation of seafarer wages. He stated that such fiscal factors increase the operating cost of Indian-flag vessels and affect their ability to compete with foreign-flag vessels operating in Indian waters.

He highlighted that competitiveness of Indian shipping should therefore be considered from a holistic perspective, taking into account the overall fiscal and regulatory environment applicable to Indian-flag vessels. He observed that differences in operating costs could incentivise Indian shipping companies to undertake business under foreign flags or deploy their vessels in international markets, thereby affecting the growth of the Indian-flag fleet.

Mr. Devli further explained the existing process for chartering foreign-flag vessels, wherein the Directorate General of Maritime Administration facilitates the process of determining the availability of suitable Indian-flag vessels before granting permission for chartering foreign vessels, as per the applicable regulatory framework. He highlighted that such mechanisms are intended to provide opportunities to Indian shipping companies while ensuring availability of adequate tonnage for domestic cargo requirements.

He also highlighted the **strategic importance of maintaining adequate Indian shipping capacity**, particularly during periods of geopolitical uncertainty and disruptions in international

supply chains. He referred to the role played by Indian-flag vessels in transporting essential commodities such as LPG and crude oil and noted that domestic shipping capacity can provide greater resilience during external disruptions.

Mr. Devli observed that India continues to have limited Indian-flag capacity in certain segments, particularly **container shipping**, resulting in significant dependence on foreign shipping lines. He emphasised that strengthening domestic shipping capacity across different cargo segments would be important for reducing external dependence and enhancing the resilience of India's maritime supply chains.

Concluding his address, Mr. Devli reiterated that cabotage is an important policy instrument for strengthening domestic shipping capability, retaining economic value within the country and supporting national maritime resilience. He noted that international experience demonstrates that cabotage measures continue to be adopted by several countries in different forms. He highlighted the need for a balanced policy framework that supports the competitiveness of Indian-flag vessels while ensuring efficient and reliable movement of cargo.

He concluded by highlighting that a stronger Indian shipping industry would contribute not only to the growth of the maritime sector but also to **economic security, employment generation, maritime capability and national security**, particularly during periods of geopolitical and supply-chain disruptions.

5.2.2 Panel Discussion (15:15 – 16:15)

The panel discussion was moderated by Mr. Anil Devli, Chief Executive Officer, Indian National Shipowners' Association (INSA), and included Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), Directorate General of Maritime Administration; Shri Aniket Singh, Deputy Inspector General, Indian Coast Guard; Dr. Abhay Singh, Director (I/c), SMLPA, Gujarat Maritime University; and Ms. Rehana Dhawade, Legal Consultant, Directorate General of Maritime Administration. The discussion focused on key aspects relating to the implementation of the Coastal Shipping Act, 2025, including coastal security, regulatory reforms, licensing, digitalisation, maritime safety, alignment with international conventions, financing and promotion of coastal cargo movement.

Mr. Anil Devli, while moderating the discussion, highlighted the need for greater awareness and understanding of the institutional framework governing coastal shipping and maritime security. He emphasised the importance of bringing together industry and Government stakeholders to understand the practical implications of the Coastal Shipping Act, 2025 and the evolving regulatory and operational framework for the sector.



Figure 18. Mr. Anil Devli, while moderating the discussion

On coastal security, **Shri Aniket Singh** highlighted the critical role of the **Indian Coast Guard** in maritime security, search and rescue, law enforcement and environmental protection. He noted that the increasing size, draught and speed of vessels, along with technological developments, have introduced new operational challenges for maritime agencies.

Shri Singh further highlighted that the Coast Guard undertakes a wide range of activities covering fishing vessels, merchant vessels, container vessels and other types of ships operating within its area of responsibility. He emphasised the importance of maintaining comprehensive awareness of vessels operating in Indian waters, including their location, route, cargo, crew, safety equipment and potential environmental or security risks.

He noted that **inter-agency coordination** remains one of the key challenges in the maritime domain, given the involvement of multiple Ministries, Departments, security agencies, port authorities and private stakeholders. He highlighted that the coastal security architecture has been significantly strengthened following the incident through enhanced coordination among the Coast Guard, Marine Police and other stakeholders.

Shri Singh also highlighted the importance of **Maritime Domain Awareness (MDA)** and technological surveillance mechanisms. He noted that the coastal security network is being strengthened through static sensors and enhanced surveillance systems, with further technological upgrades being undertaken to improve vessel identification and monitoring. He emphasised that effective surveillance and timely information-sharing would remain critical for addressing emerging security, trafficking and environmental risks.



Figure 19. Shri Aniket Singh, Deputy Inspector General, Indian Coast Guard - Panellist

Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal) provided an overview of the regulatory developments following the enactment of the **Merchant Shipping Act, 2025** and the **Coastal Shipping Act, 2025**. He highlighted that most of the rules under the Merchant Shipping Act have been progressed, with certain provisions, including those relating to fishing vessels and newly covered categories of vessels, requiring further regulatory action.

With regard to coastal shipping, Mr. Moka highlighted the progress on the licensing framework for foreign vessels, as well as the rules relating to the National Coastal Shipping Database and the National Coastal and Inland Shipping Strategic Plan. He noted that the licensing framework is being finalised with due consideration to industry concerns so as to ensure that the regulatory requirements do not adversely affect the competitiveness of the sector.

Mr. Moka further highlighted the ongoing development of the **National Coastal Shipping Database**, which would integrate relevant data from various stakeholders and facilitate improved digital access to information relating to vessels, cargo and coastal shipping operations. He noted that integration with the **Maritime Single Window (MSW)** would be important for ensuring seamless exchange of information and reducing procedural bottlenecks.

He also highlighted the proposed **Coastal Cargo Promotion Scheme (CCPS)** aimed at increasing the movement of cargo through coastal shipping. The proposed framework envisages financial incentives for **shippers, ship operators and multimodal transport operators**, along with measures to promote green shipping and address taxation and regulatory issues affecting the competitiveness of coastal shipping.



Figure 20. Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal)

Mr. Moka further highlighted the role of the **Maritime Development Fund** in supporting ship acquisition and strengthening the availability of vessels for coastal operations. He noted that financing support, including equity participation and interest-related incentives, could help address the high capital requirements associated with acquisition and operation of vessels and thereby support the expansion of the Indian coastal shipping fleet.

Ms. Rehana Dhawade discussed the Coastal Shipping Act, 2025 from the perspective of **market access, regulatory predictability and dispute resolution**. She highlighted that the regulatory framework seeks to provide greater clarity to businesses and investors entering the coastal shipping sector.

On market access, Ms. Dhawade noted that Indian vessels are not subject to the same licensing requirement for coastal trade, while an appropriate licensing framework continues to apply to foreign vessels. She highlighted the proposed **licensing framework for foreign vessels**, which seeks to differentiate requirements based on the nature of vessel operations and contractual arrangements.

She further highlighted the importance of **procedural facilitation and digitalisation** in reducing the compliance burden on industry. The use of digital platforms and standardised procedures would enable applicants to access licensing requirements, submit documentation and track regulatory processes through an integrated system. Such measures, she noted, would contribute towards improving the ease of doing business in the coastal shipping sector.



Figure 21. Ms. Rehana Dhawade, Legal Consultant, Directorate General of Maritime Administration - Panellist (I)

On regulatory predictability, Ms. Dhawade highlighted the importance of the **National Coastal Shipping Database** in providing information relating to vessels, cargo, routes, voyages and other relevant parameters. She noted that integration of information across States, ports and other stakeholders would reduce duplication of data and facilitate greater transparency and information certainty for investors and operators.

Ms. Dhawade also explained the distinction between **regulatory and commercial disputes**. She highlighted that regulatory matters relating to licensing, penalties and statutory compliance would be dealt with through the prescribed regulatory and appellate mechanisms, while commercial disputes between parties would continue to be addressed through existing mechanisms such as arbitration and courts. She emphasised that defined timelines and appellate provisions would provide greater certainty to stakeholders.



Figure 22. Ms. Rehana Dhawade, Legal Consultant, DGMA – Panellist (II)

Dr. Abhay Singh deliberated on the alignment of the **Coastal Shipping Act, 2025** with **international maritime law and conventions**. He highlighted the importance of clearly understanding the geographical and functional application of different maritime laws, particularly across territorial waters, the contiguous zone and the Exclusive Economic Zone (EEZ).

Dr. Singh noted that the Coastal Shipping Act needs to be considered in conjunction with other relevant maritime legislation, including the **Merchant Shipping Act, 2025**, the Inland Vessels framework and applicable international conventions. He emphasised that clarity regarding the jurisdiction and applicability of different laws would be important for avoiding regulatory overlaps and ensuring effective implementation.

He further highlighted the relevance of international conventions relating to the **carriage of goods, passenger liability and maritime claims**, and noted that recent legislative reforms have strengthened the alignment of India's maritime regulatory framework with international standards. He emphasised that the updated legislative framework would provide greater consistency and facilitate the modernisation of India's maritime regulatory regime.

Dr. Singh also highlighted the need to consider the respective jurisdiction of the **Central and State Governments**, particularly in relation to fisheries and activities within territorial waters. He noted that effective implementation of coastal shipping regulations would require appropriate coordination among Central and State authorities.

The discussion also covered the importance of **digital vessel tracking and compliance monitoring**. The panellists highlighted that, given India's extensive coastline, effective monitoring of vessels cannot rely solely on physical inspection and would require robust digital tracking mechanisms, including integration with existing vessel monitoring and identification

systems. Such systems would support regulatory compliance and enhance maritime safety and security.



Figure 23. Dr. Abhay Singh, Director (I/c), SMLPA, Gujarat Maritime University - Panellist

The panel further discussed the **financing and commercial viability of coastal shipping**. It was highlighted that the high capital cost associated with vessel acquisition remains a key constraint for shipowners. In this context, the proposed financing support through the Maritime Development Fund and other Government mechanisms was noted as an important enabler for fleet expansion and strengthening of the Indian-flag coastal shipping fleet.

The discussion also highlighted the need to address the **cost competitiveness of Indian-flag vessels** vis-à-vis foreign-flag vessels. Issues relating to taxation, regulatory charges and other cost components were identified as areas requiring continued examination to ensure that coastal shipping under the Indian flag remains commercially viable.

The panel emphasised that successful implementation of the Coastal Shipping Act, 2025 would require a coordinated approach covering regulatory clarity, maritime security, digitalisation, financing, infrastructure, cargo availability and industry participation. Greater integration among the Coast Guard, maritime administration, ports, State authorities, industry and other stakeholders would be essential for creating an efficient and secure coastal shipping ecosystem.

Concluding the discussion, **Mr. Anil Devli** highlighted the importance of translating the legislative reforms under the Coastal Shipping Act, 2025 into effective implementation on the ground. The panellists highlighted that a predictable regulatory environment, simplified licensing, robust digital systems, enhanced maritime security, access to finance and appropriate incentives for cargo movement would be critical for increasing the adoption of coastal shipping and strengthening India's maritime and logistics competitiveness.



Figure 24. Multi-Regulatory Complexity - Panel

6. Day 2 Sessions - 23rd August 2026

6.1 Recap of Day 1 (10:00 – 10:15)

Ms. Arundhati, Legal Consultant, Directorate General of Maritime Administration (DGMA) presented a consolidated recap of the first day, drawing together the principal observations emerging from **Track A on Logistics Cost Crisis & Port Infrastructure** and **Track B on Multi-Regulatory Complexity**. She highlighted that the discussions on the first day had moved the focus from the enactment of the Coastal Shipping Act, 2025 towards the practical requirements for its effective operationalisation.

With regard to logistics and port infrastructure, the recap highlighted the need for adequate port readiness, coastal berths, last-mile connectivity, cargo aggregation and multimodal integration with road and rail networks. The importance of Dedicated Freight Corridors, Multimodal Logistics Parks and reliable hinterland connectivity was emphasised to ensure seamless end-to-end cargo movement.

The discussions also highlighted that infrastructure creation alone would not be sufficient unless accompanied by predictable cargo volumes, commercially viable operating models, suitable PPP frameworks, access to finance, fleet modernisation and appropriately skilled manpower.

On the regulatory dimension, the recap highlighted discussions on cabotage, vessel registration, licensing of foreign vessels, maritime security, regulatory overlap and alignment of the Coastal Shipping Act, 2025 with the Merchant Shipping Act, 2025 and other applicable frameworks.

A recurring requirement identified during the deliberations was greater regulatory predictability and simplification of compliance processes. The concept of a unified or single-window maritime regulatory interface was highlighted as a potential mechanism for reducing duplication, improving transparency and facilitating ease of doing business.

The recap further noted that financing and competitiveness remain important considerations for the growth of Indian-flag coastal shipping. High vessel acquisition costs, taxation and other operating-cost differentials were identified as factors affecting competitiveness vis-à-vis foreign-flag vessels. The proposed Maritime Development Fund and other Government support mechanisms were accordingly recognised as important enablers for fleet expansion.

Concluding the recap, Ms. Arundhati emphasised that the discussions of Day 1 established the need for an integrated approach in which infrastructure, regulatory reform, financing, cargo assurance, digital systems and human-resource development are pursued concurrently. These observations provided the context for the second day's deliberations on fisheries, livelihoods and digital infrastructure.

6.2 Track D: Fisheries & Livelihood at Stake

Core Focus: Addresses the direct and indirect impact on India's 4.2 million marine fishers — sea-lane conflicts, registration of traditional craft, access to fishing grounds, safety standards, and BOBP's regional framework.

Key Discussion Areas

- Sea-lane conflicts
- Registration of traditional craft

- Access to fishing grounds
- Fisher safety standards
- BOBP's regional framework

6.2.1 Presentation (10:15 – 11:00)

Presentation by Shri Ashish Kumar, Scientist, Central Institute of Fisheries Technology (CIFT)

Shri Ashish Kumar, Scientist, Central Institute of Fisheries Technology (CIFT), delivered a presentation on the growth, opportunities, regulatory framework and livelihood dimensions of India's fisheries sector, with particular emphasis on sustainable fisheries, deep-sea fishing, post-harvest infrastructure and the role of women in the fisheries value chain.

At the outset, he highlighted the significant growth of India's fisheries production and its increasing contribution to the national economy and exports. He noted that India's fish production has increased substantially, with nearly **50% of marine production being exported**, demonstrating the growing importance of fisheries as an export-oriented sector. He also highlighted the significant contribution of fisheries to GDP and the growth in the value of marine products, particularly driven by demand from international markets, including Europe.

He highlighted the **emerging opportunities in fisheries as a driver of the Blue Revolution**. Given the stagnation of fishing activity within territorial waters, he emphasised the need to expand fishing operations into the **deep sea, particularly beyond 12 nautical miles and up to the Exclusive Economic Zone (EEZ)**. He also highlighted opportunities for diversification through **mariculture, open-sea cage culture and other high-value aquaculture systems**, particularly given the substantial marine resources available to India.

A key concern highlighted during the presentation was the high level of **post-harvest losses**, which were noted to be around **35% of total fish production**. He emphasised the need to reduce these losses substantially through improved post-harvest infrastructure, including modern landing centres, fishing harbours, storage and processing facilities. Government initiatives and infrastructure development programmes were highlighted as important measures for strengthening the fisheries value chain and improving the economic returns to fishermen.

The presentation also covered the evolving **regulatory framework governing fishing vessels**. Shri Ashish Kumar discussed the provisions relating to fishing vessels under the existing and emerging maritime regulatory framework and explained the distinction between the regulatory requirements applicable to fishing vessels and those under the **Coastal Shipping Act**. He highlighted that fisheries-related activities are treated separately under the relevant fisheries framework, while matters relating to vessel safety and construction require coordination with the maritime administration.

He further explained the proposed system of an **“access pass” for fishing vessels**, including its registration and monitoring requirements. The access pass is proposed to be issued through the fisheries administration, with implementation involving the State Governments and regulation by the appropriate central authorities. He highlighted the role of the **ReALCRaft portal** in facilitating registration and the potential for digital monitoring of fishing vessel movements and activities.

The presentation also highlighted the importance of **registration, monitoring and reporting compliance** for fishing vessels. It was noted that digital systems can support better vessel tracking, data collection and safety monitoring, particularly for vessels operating in deeper waters. Such systems can also assist in disseminating timely alerts during cyclones and other emergencies and improve the overall safety of fishermen at sea.

A significant part of the presentation focused on the **role of women in the fisheries sector**. Shri Ashish Kumar highlighted that **~28 million people** are associated with the fisheries sector and that women constitute a substantial proportion of the workforce. Women's participation is particularly significant in **processing, marketing and retail activities**. He highlighted that women account for approximately **47% of employment in marine fisheries-related activities** and around **44% in inland fisheries**, underscoring their important contribution across the fisheries value chain.



Figure 25. Presentation by Shri Ashish Kumar, Scientist, Central Institute of Fisheries Technology (CIFT)

He noted that women's participation varies considerably across States, with **Kerala** highlighted as an example where women have a particularly strong role in fisheries-related activities. Women are especially prominent in seafood processing and marketing, making their economic contribution critical to the functioning of the fisheries value chain.

The presentation identified several challenges affecting women in fisheries, including limited access to credit, inadequate infrastructure, insufficient training and capacity-building opportunities, and limited participation in leadership and decision-making structures. He emphasised the need to strengthen institutional and financial support for women engaged in fisheries-related activities.

He suggested strengthening data collection, capacity building, infrastructure development and access to finance for women in fisheries. He also highlighted the potential role of Self-Help

Groups (SHGs), cooperatives and women-specific producer organisations in improving their economic participation and bargaining power. Greater opportunities for women to participate in leadership positions and decision-making forums were also recommended.

Overall, the presentation highlighted the need for a **balanced approach to fisheries development**, combining sustainable resource utilisation, deep-sea fishing opportunities, improved infrastructure, effective vessel regulation and livelihood protection. Shri Ashish Kumar stressed that strengthening the fisheries sector would require coordinated efforts across **government institutions, State Governments, academia, industry and fishing communities**, with particular attention to economic security, gender inclusion and sustainable fisheries management.

Presentation by Rajdeep Mukherjee, Policy Analyst, BOBP, IGO

Shri Rajdeep Mukherjee, Policy Analyst, Bay of Bengal Programme - Inter-Governmental Organisation (BOBP-IGO), delivered a presentation focusing on the livelihood, safety and regulatory concerns of marine fishing communities, particularly in the context of evolving coastal and maritime activities.

He highlighted the importance of protecting the livelihoods of **small-scale and traditional fishing communities**, while ensuring their safe coexistence with growing commercial shipping and other maritime activities. The discussion focused on **sea-lane conflicts**, particularly the potential overlap between shipping routes, fishing grounds and other coastal activities, and the need for better maritime spatial planning and stakeholder coordination.

He also highlighted challenges relating to the **registration of traditional fishing craft**, highlighting the need for simple, accessible and proportionate registration mechanisms that recognise the diversity of traditional vessels and fishing practices.

The issue of **access to traditional fishing grounds** was also discussed, with emphasis on incorporating the concerns and traditional knowledge of fishing communities into coastal development and maritime planning. Meaningful consultation with fishing communities was highlighted as an important element of inclusive coastal governance.



Figure 26. Presentation by Rajdeep Mukherjee, Policy Analyst, BOBP, IGO

The presentation further emphasised the importance of strengthening **fisher safety standards**, including access to appropriate safety equipment, training, communication systems and emergency response mechanisms. At the same time, implementation of safety requirements should consider the financial and operational realities of small-scale fishermen.

He also highlighted the role of **BOBP-IGO in promoting regional cooperation** among Bay of Bengal countries on sustainable fisheries, fisher safety, capacity building and responsible fisheries management.

Overall, the session emphasised the need to balance **maritime safety, sustainable fisheries, coastal development and livelihood security**, while ensuring that traditional fishing communities remain an integral part of India's evolving maritime governance framework.

Presentation by Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal)

Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), Directorate General of Maritime Administration, delivered a presentation on the legal and regulatory framework governing fishing vessels in India, with particular emphasis on the transition from the existing Merchant Shipping Act, 1958 and Fishing Vessel Registration and Inspection Rules, 1988 to the proposed Draft MS (Fishing Vessels) Rules, 2026. He highlighted the need to strengthen vessel safety, environmental compliance and crew welfare while ensuring that the regulatory framework remains practical and sensitive to the requirements of small-scale and traditional fishers.

At the outset, he provided an overview of the **Indian fisheries sector and its importance to coastal livelihoods, food security and exports**. He highlighted the significant contribution of

marine fisheries to India's economy and the importance of States such as Gujarat, which has a long coastline and a substantial marine fishing fleet.

He explained the three-tier regulatory architecture governing fishing vessels, comprising the Central maritime administration, State Fisheries Authorities and international regulatory frameworks. While the Central Government and maritime administration are responsible for vessel safety, registration, surveys and compliance with international maritime standards, State Fisheries Departments continue to regulate fishing licences, conservation measures, seasonal restrictions and fisheries-related activities under the respective State Marine Fishing Regulation Acts.

A major focus of the presentation was the **transition from the existing 1958/1988 regulatory framework to the Draft MS (Fishing Vessels) Rules, 2026**. Shri Moka noted that the existing framework is largely based on older, paper-based registration and inspection procedures and has limited provisions relating to modern safety equipment, pollution prevention, safe manning, crew welfare and digital monitoring.

He explained that the proposed Draft MS (Fishing Vessels) Rules, 2026 seek to establish a more comprehensive and risk-based regulatory framework covering registration, vessel construction, safety equipment, pollution prevention, vessel monitoring, surveys, certification, manning, training and crew welfare. The proposed framework is structured to provide differentiated requirements according to the size and operational area of fishing vessels.



Figure 27. Presentation by Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal)

A key feature of the proposed framework is the **categorisation of fishing vessels into five categories**, based on vessel size and operating area. This approach is intended to ensure that

regulatory requirements are proportionate to the risk profile of different vessels, while avoiding the imposition of complex requirements on small traditional and non-motorised craft.

The presentation highlighted significant improvements proposed in **vessel safety and certification requirements**. Depending on the vessel category, requirements would include appropriate **lifesaving appliances, fire-fighting equipment, AIS, EPIRB, VHF communication systems, SART and Vessel Monitoring Systems (VMS)**. The draft framework also proposes a structured survey lifecycle covering **initial, annual, renewal and damage surveys**, thereby moving away from the largely ad-hoc inspection approach under the existing rules.

Shri Moka also highlighted the proposed provisions relating to **manning, training and crew welfare**. The draft rules provide for safe manning requirements, **STCW-F qualifications**, written crew agreements for applicable vessels and **mandatory crew insurance** covering risks such as death, permanent disability, medical emergencies and repatriation. These measures are intended to strengthen the overall welfare and protection of fishing crews.

Another important area covered was **environmental and pollution protection**. The proposed framework incorporates **MARPOL-aligned provisions** relating to bilge water, sewage and garbage management, as well as restrictions on environmentally harmful anti-fouling practices. These provisions seek to ensure that the expansion of fishing activity is accompanied by appropriate safeguards for the marine environment.

The presentation also highlighted the role of **digitalisation in fishing vessel governance**. The **ReALCraft portal** is proposed to serve as an important digital platform for vessel registration, ownership records, certificates and survey-related information. QR-based vessel identification and integration with other maritime and fisheries databases were highlighted as measures that could improve transparency, verification, monitoring and enforcement.

Shri Moka also discussed the international obligations applicable to fishing vessels, including the Cape Town Agreement, STCW-F Convention and the WTO Agreement on Fisheries Subsidies. He emphasised the importance of aligning India's regulatory framework with international standards while ensuring that such obligations are implemented in a manner appropriate to Indian fishing conditions.

The presentation also brought out several **concerns raised by coastal States** during consultations on the draft rules. These included the categorisation of traditional vessels, the practicality of technical construction standards, the availability and training of State-level surveyors, and the financial burden associated with equipment such as EPIRBs, AIS and VHF systems. The need for appropriate exemptions or simplified requirements for **traditional wooden and non-motorised craft** was also emphasised.

He stressed that implementation of the proposed framework would require **capacity building and coordinated action between Central and State authorities**. In particular, State surveyors would require appropriate training and technical guidance, while financial support may be required to help small-scale fishers comply with the new safety requirements.

Overall, the presentation highlighted the need for a **modern, proportionate and livelihood-sensitive regulatory framework for fishing vessels**. Shri Moka emphasised that the transition to the Draft MS (Fishing Vessels) Rules, 2026 should strengthen **safety, environmental protection, digital governance and crew welfare**, while preserving the role of State fisheries authorities and ensuring that regulatory compliance does not impose an undue burden on traditional and small-scale fishing communities.

6.2.2 Panel Discussion (11:00 – 12:15)

The panel discussion was moderated by Shri Ashish Kumar, Scientist, Central Institute of Fisheries Technology (CIFT), and included Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), Directorate General of Maritime Administration (DGMA); Shri Rajdeep Mukherjee, Policy Analyst, Bay of Bengal Programme – Inter-Governmental Organisation (BOBP-IGO); and Dr. Mukesh Lukum, Researcher, Centre for Social Knowledge and Action (SETU). The discussion focused on the livelihood, safety, regulatory, infrastructure and community concerns of fishing communities, with emphasis on fishing vessel regulation, State–Central coordination, digital registration, traditional fishing rights, access to fishing grounds and support for small-scale fishers.

At the outset, the discussion highlighted the significant contribution of the fisheries sector to India's economy, coastal livelihoods and seafood exports. The growing value of seafood exports and the importance of fisheries to employment and food security were emphasised. Government initiatives such as the Pradhan Mantri Matsya Sampada Yojana (PMMSY) and the National Fisheries Digital Platform were also recognised for supporting infrastructure, insurance, subsidies, formalisation and fisher welfare.



Figure 28. Panel Discussion Track D - Fisheries & Livelihood at Stake

A major focus of the discussion was the transition from the existing fishing vessel registration and inspection framework to the Draft MS (Fishing Vessels) Rules, 2026 under the Merchant Shipping Act, 2025. The proposed framework seeks to consolidate requirements relating to registration, vessel safety, inspection, life-saving appliances, pollution prevention, security, manning and crew welfare into a comprehensive regulatory framework.

The discussion highlighted the proposed enhanced role of State Governments in registration, licensing and certification of fishing vessels, while the maritime administration would continue

to provide the applicable technical and maritime safety framework. The need to strengthen State-level surveyor capacity, training and institutional capabilities was emphasised, particularly for the inspection and certification of larger fishing vessels.

The proposed incorporation of international maritime safety standards was also discussed, particularly for vessels operating beyond territorial waters. Requirements relating to safe manning, watchkeeping, pollution prevention and safety equipment were considered important for improving the safety of fishermen. At the same time, the panel stressed that implementation should be gradual and proportionate so that new regulatory requirements do not impose an excessive burden on traditional and small-scale fishers.

The discussion also covered the proposed categorisation of fishing vessels based on vessel size and operational area. Concerns were raised regarding the applicability of uniform categories to India's diverse fleet, particularly traditional wooden vessels and smaller fishing craft. The need for a practical, risk-based and region-sensitive regulatory approach was emphasised.

Digitalisation of fishing vessel registration and monitoring emerged as another important area. The proposed use of the ReALCraft platform could enable integration of vessel registration, fishing licences, certificates and other relevant information. Improved data availability was considered important for vessel monitoring, cyclone warnings, emergency response, search and rescue and overall maritime safety. However, the need to address digital literacy and implementation capacity at fishing harbours and landing centres was also highlighted.

The financial implications of the proposed safety requirements were discussed in detail. Equipment such as AIS, EPIRB, VHF and other safety devices may impose additional costs on fishermen, particularly traditional and small-scale operators. The need for financial assistance, subsidies and adequate transition periods was therefore emphasised to facilitate compliance without adversely affecting fishing livelihoods.

The discussion further highlighted the importance of access to fishing grounds and protection of traditional fishing practices. Fishing communities operate across territorial waters, the EEZ and, in some cases, international waters, creating interactions with multiple regulatory and maritime jurisdictions. Better coordination between authorities and greater consultation with fishing communities were identified as necessary to minimise conflicts and ensure continued access to traditional fishing areas.

Significant concerns were also raised regarding fishing harbour and landing-centre infrastructure in Gujarat. Gaps in facilities such as cold storage, ice-making, auction and storage infrastructure, berthing facilities and post-harvest handling systems were highlighted. Strengthening such infrastructure was considered essential for reducing post-harvest losses, improving product quality and increasing the income realised by fishermen.

The discussion also addressed market access, price volatility and rising operational costs. Gujarat's important contribution to India's marine fisheries and seafood exports was recognised, while fishermen's dependence on intermediaries and fluctuations in fish prices were identified as continuing challenges. Strengthening value addition, cold-chain infrastructure, direct market linkages and local processing facilities was suggested as a means of improving fisher incomes.

Rising diesel prices were identified as another significant concern for mechanised fishing vessels, given the substantial share of fuel in overall fishing costs. The discussion highlighted

the need for appropriate government support mechanisms to mitigate fuel-price volatility and maintain the economic viability of mechanised fishing operations.

The panel also emphasised the importance of community participation in coastal and fisheries planning. Participatory mapping of traditional fishing grounds, landing centres, community infrastructure and other areas of importance to fishing communities was suggested to ensure that coastal development and maritime infrastructure planning adequately reflect community needs.

The digital and legal literacy gap among fishing communities was also highlighted. Simplified information on new laws, registration procedures, safety requirements, insurance and government schemes should be made available in regional languages, including Gujarati. Universities, government institutions, legal professionals and civil society organisations could support periodic awareness and capacity-building programmes for fishing communities.

The discussion further recognised the significant contribution of women in fisheries, particularly in processing, marketing, trading and other post-harvest activities. The need for better data on women's participation and greater representation of women in consultations and decision-making processes was highlighted.

The importance of recognising traditional knowledge and fishing practices was also emphasised. Modernisation of the fisheries sector should not result in the displacement or marginalisation of traditional fishing communities. Instead, modern safety standards and technologies should be integrated with local knowledge and established fishing practices.

Overall, the discussion emphasised the need for a balanced, consultative and phased approach to implementation of the Draft MS (Fishing Vessels) Rules, 2026. While enhanced safety, registration, monitoring and international compliance are essential, the regulatory framework should remain sensitive to the financial capacity, traditional practices and livelihood dependence of small-scale fishers.

The discussion concluded that effective fisheries governance would require coordinated action among DGMA, State Fisheries Departments, coastal authorities, fishing communities, academia and civil society organisations. Strengthening harbour infrastructure, supporting safety-equipment costs, building State-level technical capacity, improving digital and legal literacy, protecting traditional fishing areas and ensuring meaningful community participation were identified as key priorities for developing a safe, sustainable and livelihood-oriented fisheries sector.

6.4 Track C: Digital Infrastructure Gap

Core Focus: Focuses on the digital infrastructure to operationalise the Act — AIS/VMS systems, port community systems, cybersecurity, AI-assisted route optimization, and smart surveillance for national security compliance.

Key Discussion Areas

- AIS/VMS integration and real-time vessel monitoring
- Port community systems and e-documentation
- Cybersecurity and data protection
- AI-assisted route optimisation

- Smart surveillance and national security compliance

6.4.1 Presentation (14:30 – 15:00)

Presentation by Shri Deependra Singh Bisen, Deputy Director general of Maritime Administration

Shri Deependra Singh Bisen, **Deputy Director general of Maritime Administration**, delivered a presentation on the growing importance of **cybersecurity in the maritime sector**, with particular importance on increasing vessel automation, cyber risks to ships and ports, protection of critical maritime infrastructure, regulatory requirements and the need for greater awareness and preparedness across the maritime ecosystem.

At the outset, he highlighted that **cybersecurity continues to receive comparatively limited attention across the maritime sector**, despite the rapid increase in the use of digital technologies and automation. He noted that modern vessels are increasingly dependent on automated systems for navigation, engine-room operations, cargo handling, communication, booking and other critical functions. While such technologies have significantly improved operational efficiency and turnaround time, they have simultaneously increased the sector's exposure to cyber threats.



Figure 29. Presentation by Shri Deependra Singh Bisen, Deputy Director general of Maritime Administration

He highlighted that shipping carries approximately **80% of global trade**, making the maritime sector a critical component of the global economy. Any significant cyberattack affecting vessels, ports, shipping companies or associated systems could therefore have **far-reaching operational and financial consequences**. He stressed that cybersecurity should consequently be treated as an integral component of maritime safety and operational resilience.

The presentation highlighted that cyber risks are not limited to the vessel itself but extend across the **entire maritime ecosystem**, including shipping companies, ports, cargo handling systems, communication networks, booking platforms, bunkering operations and other shore-based infrastructure. The increasing convergence between **Information Technology (IT) and Operational Technology (OT)** has created additional vulnerabilities, particularly where vessel systems are connected to shore-based networks.

Several international incidents were cited to demonstrate the potential impact of maritime cyberattacks. The **2017 NotPetya cyberattack** affecting Maersk was highlighted as a significant example, wherein operations across multiple locations were disrupted and the company reportedly incurred losses of approximately **US\$300 million**. The incident demonstrated how a cyberattack can rapidly propagate across interconnected maritime systems and significantly affect cargo and vessel operations.

The presentation also referred to incidents affecting **port and shipping operations**, including disruptions to cargo movement and digital booking systems. These examples demonstrated that even where the physical operation of a vessel is not directly compromised, disruption of supporting digital systems can have a significant impact on maritime trade and logistics.

A particular concern highlighted was the possibility of a cyberattack on a vessel **while it is operating at sea**. If critical automated systems, navigation systems, communication systems or engine-control systems were compromised, the resulting disruption could pose serious risks to both vessel safety and maritime operations. The need for vessels and companies to maintain appropriate **business continuity and contingency arrangements** was therefore emphasised.

He further highlighted the importance of strengthening **cybersecurity awareness among seafarers and maritime personnel**. Cybersecurity cannot be addressed solely through technical systems, as human awareness and preparedness remain critical elements of cyber resilience. He emphasised that personnel working in navigation, engineering and other operational areas should have adequate awareness of cyber threats and should understand the appropriate response mechanisms in the event of a cyber incident or data breach.

The presentation also highlighted the importance of **cybersecurity training and awareness being incorporated into maritime education and training programmes**. Seafarers should be equipped to identify potential cyber threats, follow established security procedures and respond appropriately to incidents affecting shipboard systems.

At the regulatory level, Shri Bisen referred to the **International Maritime Organization (IMO) framework on maritime cyber risk management**, including IMO Resolution MSC.428(98), which establishes that cyber risks should be appropriately addressed within the vessel's **Safety Management System under the ISM Code**. He also referred to IMO guidelines on maritime cyber risk management and the need for organisations to adopt structured approaches covering **identification, protection, detection, response and recovery**.

He highlighted the particular challenge arising from the increasing **connectivity between shipboard systems and shore-based offices**. While such connectivity improves operational efficiency and enables remote monitoring and support, it also creates additional interfaces through which cyber threats may enter vessel systems. The need for appropriate network segregation, access controls, patch management and monitoring was therefore emphasised.

The presentation also drew attention to the challenges associated with **legacy systems and patch management**. In many maritime installations, particularly older systems, timely

software updates and security patches may not always be implemented. The convergence of IT and OT systems further increases the complexity of managing cybersecurity without disrupting critical vessel operations.

Shri Bisen highlighted the importance of protecting maritime systems that form part of **national critical information infrastructure**. He referred to systems such as the **Long Range Identification and Tracking (LRIT)** framework and stressed that maritime digital infrastructure handling sensitive operational and personnel information requires appropriate security safeguards.

Another important aspect discussed was the protection of **seafarer and maritime personnel data**. He highlighted that maritime authorities maintain substantial volumes of personal and professional information relating to seafarers throughout their careers. Such information requires appropriate protection against unauthorised access, data breaches and other cyber threats.

He emphasised that cybersecurity responsibility cannot rest with a single organisation. Given the interconnected nature of the maritime sector, **shipowners, shipping companies, ports, maritime administrations, technology providers, service providers and seafarers** all have a role in maintaining cyber resilience. A coordinated and collective approach is therefore required to strengthen cybersecurity across the maritime ecosystem.

The presentation also highlighted the importance of establishing clear **cybersecurity policies, incident reporting mechanisms, risk assessments and response protocols** within maritime organisations. Timely reporting of cyber incidents to the appropriate authorities was emphasised as an essential component of national cyber resilience and critical infrastructure protection.

He further noted that increasing vessel automation is making cybersecurity progressively more important. Modern engine rooms, navigation systems and other shipboard operations are increasingly dependent on **electronic and automated systems**, reducing dependence on manual processes while increasing the potential consequences of a cyber compromise.

Overall, the presentation highlighted that **maritime cybersecurity must be treated as an integral component of maritime safety, security and operational continuity**. Shri Bisen stressed the need for stronger regulatory compliance, continuous awareness, cybersecurity training, protection of critical infrastructure, incident reporting and coordination among all maritime stakeholders. He concluded that with the rapid advancement of automation and digitalisation, strengthening cyber resilience across **ships, ports, shore-based systems and maritime personnel** would be essential for ensuring the safe, secure and uninterrupted functioning of India's maritime sector.

Presentation by Prof. Debjit Roy, Operations and Decision Sciences, Indian Institute of Management Ahmedabad (IIMA)

Prof. Debjit Roy, Operations and Decision Sciences, Indian Institute of Management Ahmedabad (IIMA), delivered a presentation on the role of automation, digitalisation, data and emerging technologies in strengthening port and logistics operations, with particular emphasis on addressing capacity constraints, supply-chain disruptions and operational variability.

At the outset, he highlighted the increasing frequency and complexity of **global supply-chain disruptions**, including those arising from the COVID-19 pandemic, geopolitical conflicts, trade

restrictions, the Suez Canal disruption and the Red Sea crisis. He emphasised that such disruptions have demonstrated the need for logistics and maritime systems to become more **agile, resilient and responsive**, rather than relying solely on traditional operational approaches.

He identified two major challenges affecting logistics and port operations: **capacity shortages and high operational variability**. These challenges contribute to longer vessel and cargo turnaround times, congestion and increased logistics costs. He emphasised that ports and shipping systems must be capable of responding rapidly to changing demand and disruptions.

The presentation highlighted **automation as a key solution to capacity constraints**. Examples of automated port operations, including automated stacking cranes, automated guided vehicles, autonomous lifting vehicles and advanced quay-crane systems, were discussed. Such technologies can improve asset utilisation, increase handling capacity and reduce dependence on manual processes, particularly in high-volume container terminals.

He further emphasised the complementary role of **digitalisation in reducing variability and improving operational planning**. Digital documentation, real-time vessel-arrival information, Just-in-Time (JIT) arrivals, electronic data interchange and AIS-based tracking can support better scheduling, coordination and resource allocation. The integration of automation and digitalisation can ultimately enable the development of **smart ports**.



Figure 30. Presentation by Prof. Debjit Roy, Operations and Decision Sciences, Indian Institute of Management Ahmedabad (IIMA)

A significant focus of the presentation was on the growing importance of **data-driven decision-making**. He explained that modern ports generate data from multiple sources, including vessel operations, cargo movements, equipment, maintenance systems and tracking platforms. When effectively integrated, such data can be used for **simulation, benchmarking, optimisation, predictive maintenance and operational planning**.

He also highlighted the potential of **Artificial Intelligence (AI), Machine Learning (ML) and advanced analytics** to convert operational data into actionable digital services. These technologies can support improved estimation of vessel arrival times, optimisation of container positioning, equipment utilisation, maintenance planning and overall terminal efficiency.

The presentation also illustrated the potential of **edge computing and real-time data collection** through examples of container freight stations. Real-time information on equipment utilisation, container movement and maintenance requirements can enable operators to optimise terminal layouts and identify operational bottlenecks.

Overall, Prof. Roy highlighted that the future of maritime logistics lies in the **integrated adoption of automation, digitalisation and data-driven decision-making**. He highlighted that automation can help address **capacity constraints**, while digitalisation can reduce **variability and uncertainty**. Together, these technologies can support the development of logistics and port systems that are **faster, more efficient, safer, cost-effective and sustainable**, while enhancing the resilience of the overall supply chain.

6.4.2 Panel Discussion (15:00 – 16:15)

The panel discussion was moderated by Prof. Debjit Roy, Operations and Decision Sciences, Indian Institute of Management Ahmedabad (IIMA), and included Shri Deependra Singh Bisen, Deputy Director general of Maritime Administration; Mr. Santosh Pathak, Partner, Digital Services, Deloitte India LLP; Mr. Srinivas Muddu, Director – Data Analytics and Computational Intelligence, Lowe's India; and Mr. Amal Joy, Product Manager, Maersk Training. The discussion focused on the digital infrastructure gap in the maritime and logistics sector, including automation, digitalisation, artificial intelligence, data integration, cybersecurity, multimodal connectivity, technology adoption, regulatory readiness and future-ready maritime skills.

Prof. Debjit Roy, while moderating the discussion, highlighted that the maritime and logistics sector is increasingly exposed to disruptions arising from geopolitical developments, pandemics, trade restrictions, capacity constraints and disruptions in major shipping routes. He emphasised that **automation and digitalisation** are important enablers for addressing capacity shortages, reducing operational variability and improving the resilience of the logistics ecosystem.

Prof. Roy explained that automation through **automated cranes, automated guided vehicles, autonomous systems and advanced terminal equipment** can enhance operational capacity, while digitalisation can reduce variability through real-time vessel arrival information, electronic documentation, data-driven scheduling and optimisation of port operations. He further highlighted the role of **AI, Machine Learning, IoT, EDI and AIS** in improving maritime operations and supporting data-driven decision-making.



Figure 31. Panel discussion Track C - Digital Infrastructure Gap

Mr. Amal Joy highlighted the challenges arising from the fragmented nature of the maritime data ecosystem. He noted that data is generated by multiple stakeholders, including shipping lines, terminal operators, customers and freight forwarders, often through different systems and platforms. He emphasised the need for greater **data integration and interoperability** so that relevant information can be accessed and utilised across the maritime and logistics value chain.

Mr. Joy further highlighted **resilience and preparedness** as key challenges. He noted that during a major disruption, stakeholders may have only a limited window of time to restore operations. Therefore, preparedness requires not only technological readiness but also adequate maturity among people, processes and infrastructure.

He also highlighted the growing role of **automation, AI and Machine Learning** in shipping and logistics operations. Examples discussed included automated customer booking processes, terminal automation, predictive berth and vessel planning, optimisation of yard operations and the use of AI to analyse customer requirements and identify potential supply-chain improvements.

Mr. Joy further explained that technological interventions need to be implemented across the **entire logistics chain**. Improvements in berth planning, for instance, may simply shift the bottleneck to the yard or terminal gate if these systems are not similarly upgraded. Therefore, end-to-end integration and coordinated optimisation are essential.

He also discussed the experience of **blockchain-based maritime trade platforms**, highlighting that technological solutions may not succeed merely because the technology is available. Successful adoption requires stakeholder readiness, trust, interoperability, willingness to share data and an appropriate governance structure. He emphasised that a neutral platform or

governance mechanism may help address concerns relating to data sharing among competing stakeholders.



Figure 32. Mr. Amal Joy, Product Manager, Maersk Training

Mr. Srinivas Muddu highlighted the importance of **data architecture, data integration and data governance** in building a digitally enabled maritime ecosystem. He noted that organisations increasingly have access to large volumes of data from multiple sources, including operational, transactional and tracking systems. However, the key challenge lies in integrating these datasets and ensuring that they are reliable and usable for decision-making.

Mr. Muddu emphasised the importance of **data lineage**, particularly in the context of AI and analytics. He explained that organisations need to be able to trace the origin and movement of data, assess its quality and integrity, and identify whether the data has undergone any alteration or contamination. He noted that robust data governance and traceability are therefore critical for developing reliable analytical and AI-based solutions.

He further highlighted **integration across data silos** as an important requirement. He noted that digital transformation should not be limited to individual systems or organisations and that data should be made interoperable across different components of the maritime and logistics ecosystem.



Figure 33. Mr. Srinivas Muddu, Director – Data Analytics and Computational Intelligence, Lowe's India

Mr. Santosh Pathak highlighted the importance of aligning technological solutions with **actual operational requirements and the maturity of the ecosystem**. He emphasised that technology adoption should be driven by clearly defined problem statements rather than by technology alone. He noted that solutions need to consider the readiness of industry stakeholders, infrastructure, regulatory frameworks and users before being implemented at scale.

The panel also discussed the importance of **multimodal logistics integration**. Participants observed that digitalisation of shipping or port operations in isolation would have limited impact unless the connectivity between ports, shipping, road, rail and inland waterways is also strengthened. An integrated digital ecosystem was therefore identified as an important enabler for improving end-to-end logistics efficiency.



Figure 34. Mr. Santosh Pathak, Partner, Digital Services, Deloitte India LLP

Shri Deependra Singh Bisen highlighted the growing importance of **cybersecurity** in the maritime sector, particularly with the increasing adoption of automation, interconnected systems and digital platforms. He noted that cyber risks now extend across vessels, ports, cargo operations, bunkering and shore-based systems.

Shri Bisen referred to major cyber incidents affecting maritime operations, including the **NotPetya cyberattack**, which demonstrated the potential for a cyber incident to disrupt global shipping and port operations and cause significant financial losses. He emphasised that cybersecurity should therefore be treated as an integral component of maritime safety and operational resilience.

He highlighted the increasing convergence between **Information Technology (IT) and Operational Technology (OT)** as a key cybersecurity challenge. He stressed the need for appropriate patch management, system monitoring, incident response mechanisms and stronger cybersecurity practices across shipboard and shore-based systems.

Shri Bisen further highlighted the importance of implementing the **IMO framework on maritime cyber-risk management**, including integrating cyber-risk management within the Safety Management System under the ISM Code. He emphasised that cybersecurity preparedness should extend across the maritime ecosystem and should involve shipping companies, ports, terminals, technology providers and other stakeholders.

He also stressed the need for **cybersecurity awareness and capacity building among seafarers and maritime professionals**. He noted that cyber-awareness should be incorporated into maritime education and training so that personnel are able to identify, report and appropriately respond to cyber incidents and data breaches.



Figure 35. Shri Deependra Singh Bisen, Deputy Director, Directorate General of Maritime Administration (DGMA)

The discussion also highlighted the importance of preparing the maritime workforce for the transition towards **automation, AI, alternative fuels and emerging technologies**. Shri Bisen noted that maritime education and training curricula need to evolve continuously to equip future professionals with relevant digital and technological competencies.

The panel discussed the need for greater **regulatory preparedness for autonomous vessels and emerging maritime technologies**. Participants emphasised that India needs to remain abreast of international regulatory developments and create appropriate infrastructure, standards, skills and institutional capabilities to support future technologies.

The discussion further highlighted various government initiatives towards **digitalisation of maritime services**, including digital certificates, learning management systems, incorporation of AI and Machine Learning-related subjects in maritime education and development of integrated digital platforms. Shri Bisen highlighted the objective of moving towards a **single-window maritime digital platform** that can integrate multiple services, regulatory processes and data requirements.

Overall, the panel concluded that bridging the Digital Infrastructure Gap requires an integrated approach combining physical infrastructure, digital platforms, automation, AI/ML, data integration, cybersecurity, regulatory preparedness and skilled human resources. The discussions emphasised that technology adoption must be aligned with actual operational requirements and supported by appropriate governance, stakeholder participation and institutional capacity to improve the efficiency, resilience, safety, sustainability and competitiveness of India's maritime and logistics sector.

6.5 Concluding Remark (16:15 – 16:30)

Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), Directorate General of Maritime Administration (DGMA), delivered the concluding remarks on behalf of DGMA, Gujarat Maritime University (GMU) and SETU at the conclusion of **Coast Connect 2026**.



Figure 36. Concluding remarks by Mr. Ravi Kumar Moka, Deputy Director General of Maritime Administration (Tech/Coastal), Directorate General of Maritime Administration (DGMA)

In his concluding remarks, Mr. Moka stated that the two-day workshop had provided a valuable platform for policymakers, regulators, industry representatives, legal experts, technologists, academicians and community stakeholders to deliberate on the effective operationalisation of the Coastal Shipping Act, 2025 and the broader objective of strengthening India's coastal maritime ecosystem.

He highlighted that the deliberations under Track A – Logistics Cost Crisis & Port Infrastructure demonstrated the significant potential of coastal shipping to facilitate a structural shift of suitable freight from road to sea. He emphasised that realisation of this potential would require simultaneous strengthening of port infrastructure, multimodal connectivity, PPP frameworks, cargo aggregation and supply-chain integration, supported by appropriate human-resource development.

With respect to Track B – Multi-Regulatory Complexity, Shri Moka noted that the discussions brought out the need for greater regulatory clarity, predictability and coordination. Issues relating to cabotage, vessel registration, coastal-zone compliance and alignment with international maritime obligations were deliberated upon. He highlighted the proposal for a single-window maritime regulatory interface as an important measure for reducing regulatory friction, simplifying compliance and improving ease of doing business.

Reflecting on the deliberations under Track D – Fisheries & Livelihood at Stake, Shri Moka emphasised that the development of coastal shipping must remain sensitive to the socio-economic interests and safety of fishing communities. The discussions highlighted the importance of registration of traditional fishing craft, appropriate sea-lane demarcation, strengthened safety standards and meaningful stakeholder participation. He reiterated that inclusive development and livelihood considerations should remain integral to the implementation of coastal shipping policies.

Under Track C – Digital Infrastructure Gap, Shri Moka highlighted the increasing importance of digital technologies in strengthening maritime efficiency, safety and resilience. He specifically referred to AIS/VMS integration, Port Community Systems, AI-enabled route optimisation and cybersecurity and observed that digital readiness should be treated as a foundational component of maritime infrastructure rather than as a subsequent requirement.

Shri Moka emphasised that the collective deliberations across all four tracks reinforced the need for a holistic, coordinated and implementation-oriented approach involving the concerned Ministries, regulators, State Governments, ports, industry, academia, technology providers and community stakeholders. He noted that strengthening port infrastructure, ensuring regulatory simplification, improving multimodal connectivity, enhancing digital capabilities and safeguarding the interests of coastal communities would be critical to achieving the intended outcomes of the Coastal Shipping Act, 2025.

Looking ahead, Shri Moka emphasised that the deliberations and recommendations emerging from Coast Connect 2026 should be translated into concrete policy actions and implementable outcomes. He highlighted the importance of continued stakeholder consultation, institutional coordination and follow-up mechanisms to ensure that the issues identified during the workshop are taken forward in a structured and time-bound manner.

He expressed his sincere gratitude to the Ministry of Ports, Shipping and Waterways, Government of India, for its continued support and patronage, and conveyed his appreciation to Shri Shyam Jagannathan, IAS, Director General of Maritime Administration, for his guidance and support. He also acknowledged the contributions of all speakers, panellists, moderators, delegates, researchers, students and young maritime professionals whose participation enriched the deliberations.

Shri Moka further expressed his appreciation to Gujarat Maritime University and the GNLU Campus for providing institutional support and the venue for the workshop, and to SETU for facilitating the participation of grassroots and community stakeholders and bringing their perspectives into the deliberations.

Concluding the workshop, Shri Moka reiterated the collective vision of developing a connected, competitive and inclusive coastal India, encapsulated in the message:

“Stronger Coasts. Smarter Shipping. Sustainable Future.”

7. Coastal Shipping Act, 2025 - Provisions Digest

The deliberations during Coast Connect 2026 brought out the principal implementation dimensions of the Coastal Shipping Act, 2025 and its interface with the wider maritime regulatory framework. The following consolidated provisions and implementation themes emerged from the workshop discussions:

7.1 Dedicated Framework for Coastal Shipping

The Coastal Shipping Act, 2025 provides a contemporary statutory framework focused on coastal trade and commercial operations, while vessel safety, certification, registration and related technical requirements continue to interface with the broader maritime regulatory framework, including the Merchant Shipping Act, 2025.

7.2 Market Access and Licensing

The workshop highlighted the simplified treatment of Indian vessels for coastal trade and the need for a clear, predictable and digitally enabled licensing framework for foreign vessels.

The licensing framework should provide transparency regarding eligibility, documentation, timelines and applicable conditions while safeguarding the competitiveness of Indian shipping.

7.3 Cabotage and Indian-Flag Capacity

Cabotage was discussed as an important policy instrument for strengthening domestic shipping capability and retaining greater economic value within India.

The discussions also emphasised the need to improve the competitiveness and availability of Indian-flag tonnage so that regulatory preference is supported by adequate domestic capacity.

7.4 Integration with Inland Waterways and Multimodal Transport

The implementation of the Act is closely linked with the integration of coastal shipping with inland waterways, ports, railways, road networks and logistics parks.

Such integration is necessary to facilitate seamless end-to-end cargo movement and support sustained modal shift.

7.5 National Database for Coastal Shipping

The proposed National Database for Coastal Shipping is envisaged as a centralised digital repository covering vessels, routes, services, voyages, licensing and other relevant parameters.

Integration through APIs with the Maritime Single Window, port, logistics, vessel-registration and inland-waterway systems is expected to reduce duplication, improve visibility and support data-driven decision-making.

7.6 Promotion of Coastal Cargo

The workshop discussions referred to the proposed ****Coastal Cargo Promotion Scheme (CCPS)****, intended to support new routes and new cargo movements through incentives for coastal shipping operators, cargo owners and multimodal transport operators.

The proposed framework is aimed at improving commercial viability and increasing the modal share of coastal and inland waterways.

7.7 Regulatory Coordination and Dispute Resolution

Effective implementation requires clear delineation of responsibilities among Central and State authorities and appropriate mechanisms for handling regulatory and commercial disputes.

Regulatory matters relating to licensing, penalties and statutory compliance are to remain within the prescribed regulatory and appellate framework, while commercial disputes may be addressed through established mechanisms such as arbitration and courts.

7.8 Safety, Security and Environmental Compliance

Implementation of the Act must remain aligned with maritime safety, security, pollution prevention and international obligations.

The workshop highlighted the need for effective vessel monitoring, maritime domain awareness, cybersecurity and appropriate environmental safeguards as coastal shipping expands.

7.9 Strategic Planning and Long-Term Development

The proposed National Coastal and Inland Shipping Strategic Plan is intended to provide a long-term roadmap covering traffic forecasting, waterway mapping, route development, multimodal integration, vessel requirements, international benchmarking and participation frameworks.

7.10 Inclusive Implementation

The implementation of coastal shipping reforms should take into account the interests of fishing communities, traditional maritime users and seafarers. Appropriate safety, welfare, consultation and transition mechanisms are necessary to ensure that regulatory and infrastructure development remains socially sustainable.

8. Key Outcomes & Action Items

Key Outcomes

8.1 Key Outcomes

The two-day deliberations resulted in the following consolidated outcomes:

- i. Effective implementation of the Coastal Shipping Act, 2025 requires coordinated action across Government Ministries, maritime regulators, State authorities, ports, industry, logistics operators, academia, technology providers and coastal communities.
- ii. Port readiness, coastal berths, multimodal connectivity, cargo aggregation and fleet modernisation are critical prerequisites for achieving sustained modal shift towards coastal and inland waterways.
- iii. Commercial viability must be supported through predictable cargo availability, appropriately structured PPP models, access to finance and targeted policy incentives.
- iv. Regulatory processes should be simplified, harmonised and progressively digitised to reduce compliance costs and improve regulatory predictability.
- v. The National Database for Coastal Shipping should be developed as an interoperable digital platform integrated with relevant maritime and logistics systems, including the Maritime Single Window.
- vi. Digitalisation should be treated as a core infrastructure requirement, with AIS/VMS, Port Community Systems, electronic documentation, AI-enabled analytics and cybersecurity incorporated into implementation planning.
- vii. Fisheries and livelihood considerations should be integrated into coastal development and maritime planning, with proportionate safety and registration requirements for traditional and small-scale fishing vessels.
- viii. Capacity building, skilling, apprenticeships and industry–academia partnerships should be strengthened to meet emerging manpower requirements across coastal shipping and logistics.
- ix. Continued Central–State and stakeholder engagement is necessary to identify implementation bottlenecks and develop State-specific, time-bound interventions.
- x. Workshop recommendations should be converted into implementable actions with identified institutional ownership, timelines and monitoring indicators.

8.2 Action Items by Track

Track A: Logistics Cost Crisis & Port Infrastructure

- Undertake an assessment of port and coastal-berth readiness for priority cargo and routes, including last-mile road and rail connectivity.
- Identify high-potential cargo and routes for modal shift and develop mechanisms for cargo aggregation and cargo assurance in consultation with shippers, ports and logistics operators.
- Examine project-specific PPP and commercial models with appropriate allocation of revenue, operational, expenditure, policy and third-party risks.

- Strengthen integration among ports, Dedicated Freight Corridors, Multimodal Logistics Parks, highways and inland waterways to facilitate end-to-end cargo movement.
- Develop coordinated skilling and apprenticeship programmes in partnership with GMU, the Logistics Sector Skill Council and industry, including exploration of a dedicated maritime/logistics Centre of Excellence.

Track B: Multi-Regulatory Complexity

- Finalise and operationalise the licensing framework for foreign vessels with clear eligibility criteria, documentation requirements, timelines and digitally enabled processing.
- Develop a consolidated regulatory interface or single-window mechanism covering relevant coastal shipping approvals and information requirements to reduce duplication and improve ease of doing business.
- Continue structured consultations with Indian shipowners and other stakeholders on cost competitiveness, taxation, conversion/reconversion issues and access to finance.
- Strengthen inter-agency coordination for maritime security, vessel monitoring, regulatory compliance and information sharing.
- Prepare appropriate guidance on the interface among the Coastal Shipping Act, 2025, Merchant Shipping Act, 2025, Indian Ports Act, inland waterways legislation and other applicable frameworks to minimise jurisdictional ambiguity.

Track C: Digital Infrastructure Gap

- Progress development of the National Database for Coastal Shipping and establish an interoperability architecture for integration with the Maritime Single Window, vessel, port, logistics and inland-waterway databases.
- Define common data standards, APIs, access protocols and data-governance arrangements for participating stakeholders.
- Promote AIS/VMS integration and real-time vessel visibility, particularly for safety, compliance and maritime domain awareness.
- Develop a maritime cybersecurity framework covering vessels, ports, terminals, shore-based systems, IT/OT interfaces, incident response and stakeholder awareness.
- Identify priority use cases for automation, Artificial Intelligence, Machine Learning and predictive analytics in vessel-arrival forecasting, berth planning, cargo handling, yard operations and route optimisation.
- Strengthen digital skills and change-management capacity among maritime regulators, ports and industry users.

9. Challenges & Recommendations

No.	Key Challenge	Recommendation
1	Fragmented infrastructure and inadequate last-mile connectivity may constrain the commercial viability of coastal shipping and limit the benefits of modal shift.	Undertake route- and cargo-specific infrastructure assessments; prioritise coastal berths, port connectivity, DFC/MMLP interfaces and last-mile infrastructure; and promote suitable PPP models.
2	Uncertainty arising from multiple regulatory instruments, institutional interfaces and compliance requirements may increase transaction costs and reduce investor confidence.	Develop a coordinated regulatory interface, harmonise procedures and documentation, define institutional responsibilities, and provide clear digital guidance on licensing, approvals, compliance and dispute-resolution mechanisms.
3	Fragmented maritime data systems, limited interoperability and uneven digital maturity across stakeholders may constrain real-time visibility and data-driven decision-making.	Accelerate the National Database for Coastal Shipping and its integration with the Maritime Single Window and other relevant systems; establish common data standards, APIs, cybersecurity controls and capacity-building measures.
4	Enhanced safety and regulatory requirements may create financial and operational pressures for traditional and small-scale fishing communities.	Adopt a phased and proportionate compliance approach, strengthen State-level capacity, provide appropriate transition and financial-support mechanisms, and undertake sustained community consultation and awareness programmes.
5	Limited availability of predictable cargo, skilled manpower and commercially viable vessel capacity may constrain sustained adoption of coastal shipping.	Develop cargo-aggregation mechanisms, targeted incentives and financing support; strengthen fleet modernisation; and establish structured skilling, apprenticeship and industry-academia programmes.
6	Inter-agency coordination remains critical because coastal shipping intersects with maritime security, ports, fisheries, logistics, inland waterways and State-level functions.	Establish regular Central-State-industry coordination mechanisms with defined institutional ownership, action trackers, timelines and periodic review of implementation bottlenecks.

10. Way Forward

Continuous Engagement Model

The workshop may be followed by a structured continuous-engagement mechanism among DGMA, GMU, and relevant stakeholders. The mechanism may include periodic review meetings, thematic consultations and focused working sessions on regulatory, infrastructure, digital and fisheries-related matters.

Stakeholder submissions received during the workshop may be consolidated into an **Action Tracker** identifying:

- Issue/concern;
- Proposed intervention;
- Responsible institution;
- Priority;
- Indicative timeline;
- Dependencies; and
- Current status.

GMU may continue to serve as an academic and knowledge partner for stakeholder consultations, capacity building, research and dissemination.

DGMA may coordinate with relevant Ministries, State Governments, ports and other authorities on matters requiring regulatory or policy intervention. Where appropriate, identified issues may be taken up through the existing Coastal State Workshop mechanism and other institutional platforms.

Proposed Institutional Mechanisms

The following institutional mechanisms are recommended for consideration:

1. A periodic **DGMA–GMU coordination mechanism** to review workshop outcomes, stakeholder feedback and priority implementation issues.
2. Track-specific working groups or thematic consultations, as required, on:
 - infrastructure and cargo aggregation;
 - regulatory harmonisation;
 - digitalisation and cybersecurity; and
3. Continued Central–State coordination through the Coastal State Workshop framework for development of Gujarat-specific and other coastal-State action plans.
4. Structured industry–academia engagement for skilling, apprenticeships, applied research, technology pilots and capacity building.
5. A consolidated action tracker with clear ownership, timelines, dependencies and status updates to ensure that workshop recommendations are translated into measurable implementation outcomes.

Monitoring of Implementation

Implementation progress may be monitored through a defined set of outcome-oriented indicators, including:

- Growth in coastal and inland waterway cargo volumes and modal share, with progress tracked against approved Government targets and milestones.
- Number of priority coastal routes and cargo categories operationalised or expanded, along with indicative cargo volumes and service frequency.
- Port and coastal-berth readiness, including last-mile road/rail connectivity and integration with DFCs, MMLPs and inland waterways.
- Progress in operationalisation and adoption of the National Database for Coastal Shipping and its integration with the Maritime Single Window and other relevant digital systems.
- Reduction in processing time and procedural steps for applicable coastal shipping approvals and foreign-vessel licensing.
- Progress in fleet modernisation, vessel availability and financing support for coastal shipping.
- Adoption and coverage of AIS/VMS, electronic documentation, Port Community Systems and other digital maritime services.
- Cybersecurity preparedness, including awareness, incident-response capability and protection of critical maritime IT/OT systems.
- Number of fishing vessels registered/covered under the evolving regulatory framework, together with safety-equipment adoption and training outcomes.
- Number of stakeholder consultations, capacity-building programmes, apprenticeships and industry–academia initiatives undertaken.
- Status of identified action items, including percentage completed, under implementation and pending, with periodic review at the appropriate institutional level.

Overall Way Forward

The workshop demonstrated that the Coastal Shipping Act, 2025 provides an important foundation for strengthening India's coastal maritime ecosystem; however, its intended outcomes will depend on sustained implementation, inter-institutional coordination and continuous stakeholder engagement. The way forward should therefore focus on converting the deliberations of Coast Connect 2026 into a structured implementation agenda with **clear institutional ownership, defined timelines, measurable outcomes and periodic review**.

The convergence of Government, industry, academia and community perspectives achieved through Coast Connect 2026 may be institutionalised through continued consultations and knowledge-sharing platforms. This would enable emerging implementation challenges to be identified early, policy and operational responses to be calibrated appropriately, and successful interventions to be scaled across coastal States.

The overarching objective should remain the development of a **connected, competitive, digitally enabled and inclusive coastal shipping ecosystem**, supporting India's broader

maritime and logistics objectives while ensuring that the benefits of coastal development reach industry, coastal communities and the wider economy.

11. Acknowledgements

Gujarat Maritime University (GMU)

For hosting and organizing Coast Connect 2026 as a premier platform for the Coastal Shipping Act, 2025.

Directorate General of Maritime Administration (DGMA)

Ministry of Ports, Shipping and Waterways, Government of India, for regulatory leadership and institutional support.

SETU (Society for Empowerment & Trade Upgradation), Ahmedabad

For ensuring the perspectives of coastal fishing communities and local maritime trades were represented throughout the workshop.

About Organizations

Three complementary institutions.
One shared coastal vision.

ABOUT GUJARAT MARITIME UNIVERSITY (GMU)

Gujarat Maritime University (GMU), established by the Government of Gujarat through the Gujarat Maritime Board, is a pioneering initiative dedicated to bridging critical knowledge and capacity gaps in the maritime sector. Conceived as a centre of excellence, GMU offers specialised academic and professional programmes in Maritime Law, Maritime Management, International Trade Law, Shipping, Logistics, and related disciplines. Through its globally aligned curriculum and industry-oriented approach, the University seeks to prepare future professionals and strengthen India's role in the evolving global maritime landscape.

ABOUT DIRECTORATE GENERAL OF MARITIME ADMINISTRATION (DGMA)

The Directorate General of Maritime Administration (DGMA) serves as the apex regulatory body ensuring the safety, security, and efficiency of India's maritime operations. Dedicated to implementing national maritime policies and international conventions, the DGMA plays a critical role in fostering a sustainable and globally competitive coastal shipping ecosystem, facilitating trade while safeguarding marine environments.

ABOUT SETU (SOCIETY FOR EMPOWERMENT & TRADE UPGRADATION)

SETU is a dedicated organization working at the grassroots level to support and uplift coastal fishing communities and local maritime trades. By fostering dialogue between traditional fisheries and modern commercial shipping, SETU ensures that policy reforms like the Coastal Shipping Act, 2025, remain inclusive, balancing industrial growth with the socio-economic welfare and livelihood security of India's artisanal fishers.



KNOWLEDGE • GOVERNANCE • EMPOWERMENT

Together for a stronger, sustainable and globally competitive maritime India.

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