



OCEAN CENTRES BANGLADESH

PUTTING SAFETY AT THE HEART OF SUSTAINABILITY

*Fostering a safe and sustainable
ocean economy in Bangladesh*

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FOREWORDS

The pursuit of a Sustainable Ocean Economy presents one of the most critical opportunities of our times. Yet, this pursuit remains incomplete and unjust if it fails to safeguard the people who drive it. On behalf of the UN Global Compact Network Bangladesh, I am immensely proud to present this Report on Ocean Centres Bangladesh, a groundbreaking initiative that places human safety at the very core of ocean governance in Bangladesh.



Shahamin Zaman
Executive Director
UN Global Compact
Network Bangladesh

This work is made possible through a vital partnership that exemplifies the spirit of collaboration the UN Global Compact champions globally. We are profoundly grateful to Lloyd's Register Foundation, whose visionary funding and technical expertise have been instrumental in establishing this locally-led platform. Their commitment to funding safety research and education aligns perfectly with our mission to advance the Ten Principles and the Sustainable Development Goals through tangible business action.

Ocean Centres Bangladesh operationalizes a powerful model for collective impact. By uniting government, industry, financiers, academia, and the irreplaceable voices of coastal communities, it transforms high-level aspiration into practical, life-saving solutions. Safety deficits are not just a humanitarian crisis but a fundamental barrier to investment, resilience, and equitable growth across all ocean sectors.

It demonstrates how global support can empower local leadership, creating a blueprint where safety becomes the indispensable engine for a blue economy that is productive, resilient, and, above all, just. The path forward is clear, and our collective responsibility is greater than ever before.

FOREWORDS

As Bangladesh charts its ambitious course towards a blue economy, we must anchor our progress in a fundamental truth: sustainability cannot exist without human security. For generations, the resilience of our coastal communities has been tested by the perilous waters of the Bay of Bengal, where safety has too often been sacrificed for subsistence. This national report of Ocean Centres Bangladesh marks a decisive turn, a commitment to making safety the non-negotiable core of our maritime future.

This vital undertaking stands on the shoulders of a powerful global-local partnership. We are deeply grateful to Lloyd's Register Foundation, whose strategic funding and technical partnership have been essential in transforming vision into reality. Their global leadership in funding safety research directly empowers our locally-led mission. Simultaneously, the unwavering support of the United Nations Global Compact provides the critical framework and global mandate, ensuring our work aligns with the Sustainable Development Goals and responsible business practices worldwide.

Ocean Centres Bangladesh is, therefore, a testament to collaborative power. It is a platform forged from the lived realities of our fishers, seafarers, and port workers, and amplified by international expertise and commitment. The evidence in this report, drawn from eight national workshops, is clear: investing in safety is not a cost, but a catalyst for resilient growth, dignified work, and environmental stewardship. It is the bridge between policy and survival, between economic potential and human protection.

The path ahead is a shared journey. We call upon every sector to embrace the actionable roadmap within these pages. Let us build a legacy where our ocean's bounty sustains communities without claiming lives—a future that is prosperous, just, and secure for all Bangladeshis.



**Commodore Syed Ariful Islam,
BN (Retd)**

Focal Point, Ocean Centres
Bangladesh
Project Lead, Maritime
Anti-Corruption Network
(MACN) Bangladesh / UN Global
Compact Bangladesh

WHY PUT SAFETY AT THE HEART OF SUSTAINABILITY

Putting safety at the heart of Sustainability is the only way to ensure a just and resilient Blue Economy. Ocean Centres Bangladesh operates on the principle that sustainability and safety are inseparable.

1. Safety makes sustainable growth possible. A sustainable ocean economy depends on the safety of ocean workers and coastal communities whose lives and livelihoods rely on it.

In Bangladesh, Safety for People focuses on protecting frontline workers such as artisanal fishers and shipbreaking workers. Equipping traditional fishing boats with GPS and radio communication can greatly reduce deaths during cyclones. At the same time, improving shipbreaking yards in Chattogram to meet HKC standards can make the work safer by reducing toxic exposure and preventing accidents. This

shift transforms safety from a luxury into a foundational right, shielding our most vulnerable workers from the inherent risks of the sea. Protecting coastal communities alongside frontline workers is essential to ensure that Bangladesh's blue economy delivers inclusive and resilient development rather than leaving vulnerable populations exposed to climate hazards.

2. Safe operations and resilient infrastructure protect people and help reduce environmental risks, supporting healthier ocean ecosystems.

Bangladesh must prioritize environmental safety to protect its fragile coastlines from industrial accidents. Enforcing "safety-first" navigation along the Pussur River is vital to shield the Sundarbans mangrove ecosystem from catastrophic oil spills. Additionally, maintaining strict boundaries around the Swatch of No Ground Marine Protected Area prevents

offshore operations from depleting critical Hilsa fish stocks, preserving essential biodiversity. Complementing these measures with robust public-private safety standards will help protect ocean workers and ecosystems from cyclones, tidal surges and rising salinity while fostering resilient blue growth.

3. A safer, more responsible ocean industry reduces risk, builds investor confidence, and helps unlock sustainable blue finance and long-term growth.

Bangladesh's safety for prosperity framework drives economic growth by reducing commercial risks. Enforcing rigorous safety standards at Chattogram and Mongla ports minimizes vessel idle times and cargo damage, lowering business costs. Furthermore, implementing strict biological safety in aquaculture sectors ensures disease-

free products, making Bangladeshi shrimp and dry fish highly bankable and unlocking premium export markets in the EU and USA. Together, these measures position safety as a strategic enabler of sustainable blue finance, stronger investor confidence and long-term economic resilience.

THE OCEAN CENTRES INITIATIVE

The **Ocean Centres initiative** is hosted by the UN Global Compact, the world's largest corporate sustainability initiative, and supported by Lloyd's Register Foundation, a global charity dedicated to engineering a safer world.

For the Ocean Centres initiative, safety and sustainability cannot be addressed separately. Safety is not only a matter of compliance or risk response; it is an enabling condition for sustainable development, climate resilience, investment and long-term prosperity. In this context, climate adaptation is also a safety strategy: by reducing exposure to hazards, strengthening resilience and enabling systems to cope with changing conditions, it helps prevent harm to people, infrastructure and communities. There is no blue economy without blue economy workers - fishers, port workers, seafarers - delivering their challenging jobs safely, supported by adequate standards, equipment and skills.

This safety-sustainability nexus is also increasingly relevant for unlocking finance and investment. As financial institutions, insurers and investors integrate operational, social, governance and reputational risks into their assessments, safety-related considerations are becoming more important within due diligence, ESG and investment decision-making processes.

Creating a **Safe and Sustainable Ocean Economy** is therefore not only a social imperative, but also an economic one. By helping stakeholders understand these interconnected risks and opportunities, the Ocean Centres seek to strengthen investor confidence, reduce barriers to finance and support investment in sustainable ocean development.

The Ocean Centres were set up in seven countries: Brazil, Ghana, Kenya, India, Bangladesh, Indonesia and the Philippines. The programme focuses on four key Action Areas:



The Ocean Centres initiative was officially launched during the UN Ocean Conference in Nice, France, on June 2025. Following the global launch, each participating country organised its own national launch and initiated a series of eight multi-stakeholder workshops, convening organisations from government, industry, the financial sector, academia, trade unions and civil society.

These dialogues were designed to identify and address the priorities, challenges, solutions, and opportunities shaping each country's transition towards a **Safe and Sustainable Ocean Economy**, including those related to climate change, the energy transition, emerging technologies and digitalisation.

This report forms part of a broader body of knowledge developed through the Ocean Centres initiative across the seven countries listed above. Together, the seven national reports

and the accompanying Global Report capture the key priorities, challenges, opportunities and recommendations emerging from locally led, multi-stakeholder engagement.

Each report was co-created through a series of in-person and online dialogues, reflecting the knowledge, experiences and perspectives voluntarily shared by participants in each country. Drafts were subsequently reviewed by Ocean Centres members and the respective National Safety Committee, whose feedback helped strengthen the accuracy, relevance and contextual grounding of the final report.

We invite readers to explore the full collection of reports and join us in advancing knowledge, partnerships and investment, implementing the recommendations, and working collaboratively towards safer and more sustainable ocean economies.



EXECUTIVE SUMMARY

Bangladesh is advancing its Blue Economy by modernising ports such as Chattogram and Matarbari, strengthening international trade while expanding offshore wind with major foreign investment. At the same time, improving safety in fishing and aquaculture is essential to protect

vulnerable workers and food security. The Ocean Centres Bangladesh prioritises ports, shipping, fishing and aquaculture to boost exports, reduce reliance on foreign vessels, safeguard marine biodiversity and build a resilient, safe and sustainable blue economy.

Ocean Centres Bangladesh by the Numbers

8 NATIONAL WORKSHOPS

28
hours

266
Individuals

Note: Under "Organizations by Sector", "Others" includes individuals who participated in the workshops without representing a specific organisation or sector.

Organisations by Sector

125 Private Sector

74 Academia, Research, and Think Tanks

30 Community, Indigenous, Women, or Youth-led Organisations

14 Government & Public Institutions

7 Civil Society, NGOs, and Multi-Stakeholder Platforms

7 Labour Unions & Professional / Sector Associations

5 Finance & Investment

3 Intergovernmental and International Organisations

1 Others

LAUNCH EVENT

4
Hours

120
Individuals

51 OFFICIAL MEMBERS

51
Organisations
0
Individuals

Three Things you Need to Know About Ocean Centres Bangladesh

1

Safety is increasingly recognized in Bangladesh as a foundational element of sustainable ocean development, but there is a gap in implementing it.

2

Despite Bangladesh's rich maritime history and established regulations, fragmented governance has often hindered effective implementation and results.

3

While industries often bypass safety and decarbonization measures to cut costs—and financial institutions remain hesitant—OCB is actively bridging this gap by demonstrating that these investments are essential for long-term, sustainable growth.

Cross-cutting Findings from the Blue Safety Wheels Presented in “Outputs”



- 1** Training gaps, limited safety equipment and exposure to hazardous tasks increase risks for workers across fuel handling, port operations, fishing, aquaculture processing and offshore construction.
- 2** Aging infrastructure, vessel retrofitting needs, poorly maintained boats, weak traceability systems and climate-exposed assets create operational risks across ocean industries.
- 3** Spill risks, port pollution, climate hazards, weak storm warning systems, contamination, habitat loss and wildlife impacts threaten environmental safety and sector resilience.
- 4** Fragmented oversight, weak accident reporting, limited emergency preparedness, certification gaps and missing sector-specific legislation constrain effective safety governance.
- 5** High upfront costs, expensive technology adoption, financial vulnerability among small operators, rising production costs and perceived investment risks limit safety improvements and sector resilience.

Opportunities for Safe Blue Growth

- Shipping:** Early adoption of IMO GHG strategy and Digital Monitoring; Retrofitting for EEXI/CII; Upgrading existing ship-breaking yards.
- Ports:** Climate-Resilient Infrastructure; Develop and implement a National Port Safety Roadmap; Incentivize renewable energy use.
- Fishing:** Ratification of STCW-F, ILO C188; VMS for IUU tracking; Affordable insurance for fishers.
- Aquaculture:** Promote immediate adoption of Good Aquaculture Practices (GAP); Develop and enforce internal traceability; Update internal company policies to phase out antibiotics.
- Offshore Renewables:** Enact Offshore Renewable Energy Act ; Establish a single-window under SREDA; Develop PPAs and risk guarantee instruments.

Finance and Investment Implications of Safety Challenges

- Shipping:** Cost of Decarbonization Compliance; Investment Barriers for Green Tech; Higher premiums due to handling risks for new fuels.
- Ports:** High upfront costs for developing port bunkering; High costs of advanced Technologies; Bureaucratic Risk.
- Fishing:** No coverage due to high mortality; Vulnerability to loan sharks; Insurance Unavailability.
- Aquaculture:** Insurance costs rise due to contamination risks; High feed costs; Biosecurity Investment Needs.
- Offshore Renewables:** High capital expenditure; Project Bankability Gap; High premiums for cyclone exposure; Grid Integration Costs.

A CALL TO ACTION: KEY RECOMMENDATIONS AT A GLANCE

The recommendations below highlight the priority actions emerging from the findings of this report. They provide an at-a-glance overview for the business, government and finance sectors, while the complete set of recommendations is presented in the chapter A Call to Action: Recommendations by Action Area.



Business

- Adopt Improved Fuel & Tech Strategy
- Implement Modern Safety Systems
- Invest in Digitalization
- Strengthen Fisher Cooperatives
- Enhance Data Transparency



Government

- Enact Dedicated Marine Legislation
- Strengthen Human Capital
- Ratify International Conventions
- Finalize National Action Plan



Finance

- Establish Blue Loan Facilities
- Mobilize Blended Finance
- Develop affordable insurance for fishers
- Incentivize Green Shipping.
- Fund Pre-Feasibility Studies



A full-page background image featuring a wind turbine on a beach at sunset. The sky is a mix of orange, pink, and blue, with a bright light source on the left creating a lens flare effect. The ocean is calm, and the wind turbine stands prominently in the foreground.

“ Safety is a precondition of all sustainable business practices, and the role of UN Global Compact is to provide business and governments with clear guidance on how to embrace safety in their sustainability journey ”

Erik Giercksky

Head, Ocean Stewardship Coalition
United Nations Global Compact

INTRODUCTION

About this Report

The Report details OCB, documenting the foundational work to embed safety as the non-negotiable cornerstone of a sustainable and equitable blue economy. It chronicles our unique, locally-led, multi-stakeholder approach, presenting key activities, partnership models,

and initial impacts across communities, industries, and policy frameworks. The report serves as both an accountability mechanism to our partners and a transparent record of lessons learned, challenges navigated, and the strategic path forward for systemic change.

Core Global Message:

This Report offers a proof-of-concept for the world, demonstrating that investing in dedicated, local institutions focused on human safety is the critical first step in building a truly resilient and just ocean future. It provides a replicable model for turning the principles of sustainable development into grounded, collaborative action.

Local Message for Partners & Nation:

For Bangladesh, this Report is a testament to our collective commitment and capability. It underscores a national shift toward owning our maritime safety narrative, showcasing how Bangladesh's leadership is proactively safeguarding lives, strengthening industries, and ensuring that our journey toward ocean prosperity leaves no one behind.

Who is this Report for?

The report is specifically tailored for a high-level audience of governments and policymakers to inform national regulations and international safety standards, while providing private sector leaders with actionable guidance on integrating maritime safety into their sustainability

operations. Additionally, it serves as a strategic resource for international investors and financial institutions to identify de-risked, “investable” opportunities in the blue economy, and assists international regulators in developing enforceable safety standards for the global maritime workforce.



Our Two Priority Areas

The Ocean Center Bangladesh (OCB) adopts a phased approach to advancing Bangladesh's blue economy. It prioritises **Fishing and Aquaculture** to strengthen livelihoods, food security, and community resilience, while recognising **Shipping and Ports** as a key driver of sustainable trade, connectivity, and long-term economic growth.



Fishing and aquaculture have been prioritised for their critical role in strengthening food security, sustaining coastal livelihoods and advancing Bangladesh's blue economy. Bangladesh's 118,813 km² Exclusive Economic Zone (EEZ) offers vast potential for sustainable marine development. Building on a sector contributing 3.5% of GDP and supporting over 18 million livelihoods, strategic investment in occupational safety, mariculture and sustainable resource management will create jobs, protect marine biodiversity and drive climate-resilient blue growth.



Shipping and Ports have been prioritised as the backbone of Bangladesh's trade and maritime economy, handling **over 90% of international trade**. Alongside modern ports, Bangladeshi seafarers make a growing contribution to the global maritime industry, earning foreign exchange and supporting the national economy. Strategic investment in infrastructure, maritime safety, digitalisation and green shipping will create skilled jobs, enhance competitiveness and accelerate sustainable blue growth.



BACKGROUND

Why does Ocean Centres Bangladesh exist?

OCB exists to safeguard Bangladesh's future. By empowering its maritime community with sharing knowledge, supporting robust standards, and fostering collaboration between the public sector,

private industries, and financial institutions. The goal is a future where the ocean's journey toward ocean prosperity is both secure and just.

Why a multistakeholder collaborative platform?

OCB is a multi-stakeholder collaborative platform because the systemic safety gaps undermining ocean sustainability cannot be solved in isolation. We therefore convene fisherfolk and shipowners, regulators and insurers, seafood processors and international buyers. This intentional intersection breaks down silos, aligns disparate incentives, and fosters the co-creation of solutions where

regulatory frameworks are informed by practical realities, financial investments are de-risked by better safety practices, and community knowledge directly shapes national policy. Only through such integrated dialogue can safety be woven into every strand of the ocean economy's fabric.

Local Messages for:

1 Government:

We provide a coordinated, evidence-based channel to translate policy into practical, enforceable standards that are respected on the water, enhancing governance and protecting national assets.

2 Industry:

We offer a direct line to mitigate your greatest operational and reputational risks—accidents and loss of life—by fostering a culture of safety that increases productivity, secures market access, and ensures social license to operate.

3 Coastal Communities:

We amplify your voice at the highest tables, ensuring that the safety solutions developed are grounded in your lived experience, protecting lives, livelihoods, and your rightful place in the blue economy.



Why Locally Led?

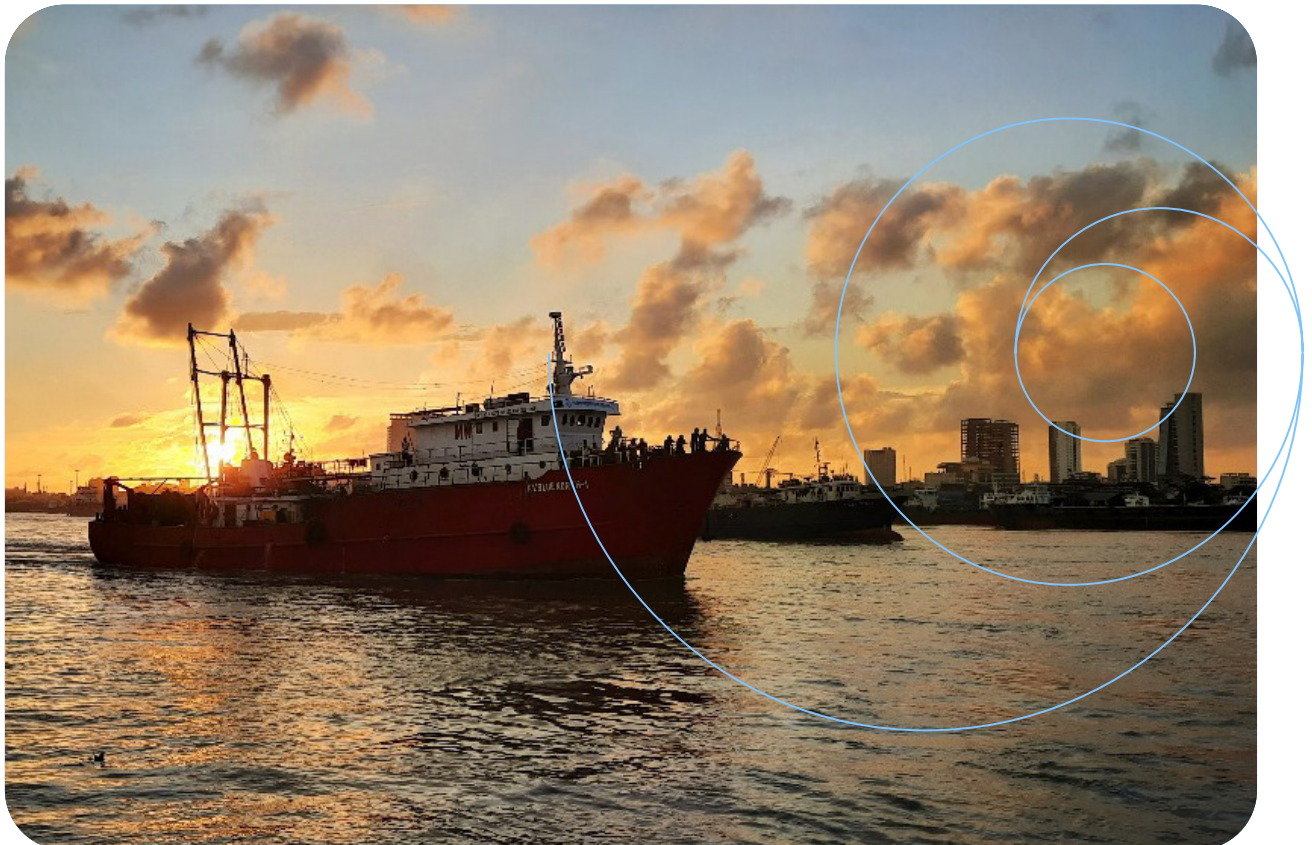
For Bangladesh, our local leadership is a statement of self-determination and building capacity with the local context. It declares that our people are not mere beneficiaries or risks to be managed, but the primary architects of their own safe and prosperous maritime future. It ensures that solutions strengthen the national economy, respect cultural nuances, and build

institutional knowledge that remains within the country. By being locally led, we commit to a safety culture that is owned by Bangladeshis, ensuring that the growth of our ocean industries empowers and protects our communities first and foremost, turning the tide from vulnerability to collective strength.

Why Long-term?

Achieving lasting safety requires a persistent, long-term transformation of mindsets, behaviors, and deeply entrenched systems that have existed for decades. True maritime protection never stems from a single training session or a new piece of equipment alone. Instead, it demands the continuous reinforcement of operational standards, iterative adaptation to evolving climate realities, and response to severe

economic pressures. Success depends heavily on nurturing deep trust and genuine accountability across the entire maritime ecosystem. OCB commits fully to this sustained journey by providing the permanent forum necessary for continuous dialogue, mutual learning, and collective action that outlives short-term corporate projects and political cycles.



OCEAN CENTRES BANGLADESH: JOURNEY TO DATE

Governance Structure

OCB exists to safeguard Bangladesh's future. By empowering its maritime community with sharing knowledge, supporting robust standards, and fostering collaboration between the public sector,

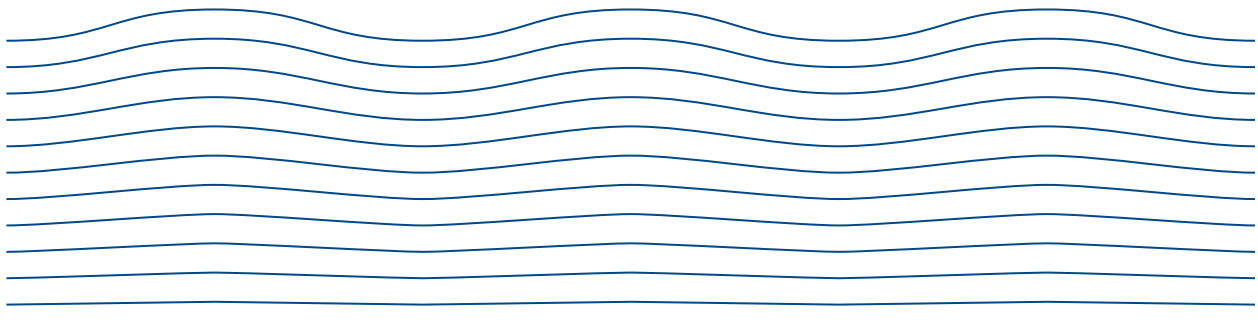
private industries, and financial institutions. The goal is a future where the ocean's journey toward ocean prosperity is both secure and just.

National Level

the OCB operates as a "living network" led by the UN Global Compact Network Bangladesh. Under the guidance of a dedicated Country Lead, the Centre ensures that all maritime initiatives it takes are strictly aligned with national Blue Economy priorities and the specific regulatory landscape of the Bay of Bengal. By working directly with government bodies and regulators, the Centre serves as a strategic bridge to influence national safety policies and infrastructure standards, transforming global expertise into practical, domestic solutions that drive safe maritime growth.

Stakeholders Level

the Centre functions as an inclusive platform that unites the private sector, financial institutions, and academia to co-design context-specific industry solutions. Specialized working groups consisting of engineers and safety professionals collaborate with trade unions, NGOs, and youth-led associations to ensure equitable decision-making and a "just transition" for all maritime workers. This multi-layered approach allows individual safety experts and "Ally Partners" to contribute technical insights, ensuring that the development of Bangladesh's ocean economy is both technically robust and socially inclusive.



Capacity Building

1 Ocean Centres Leads:

A core component of our capacity-building strategy has been the empowerment of designated Ocean Centres Leads, who serve as Safety Ambassadors within their sectors and communities. They are equipped with specialized training, communication tools, and advocacy frameworks to champion safety practices, disseminate critical information, and serve as trusted local points of contact.

2 Regular Meetings, Learning Sessions, Workshops and Webinars:

Through a collaborative approach, the OCB has established a structured programme of regular engagements and participatory dialogues, fostering continuous learning, knowledge exchange, and stakeholder collaboration. These engagements focus on critical issues like decarbonization safety of fishers and the seafarers. These dialogues brought together stakeholders from government, industry, and grassroots communities to co-create practical solutions. Some of these events are enumerated below:

- **Capacity Building and Awareness Raising:** During the visit of the Lloyd's Register Foundation team to Bangladesh, Ocean Center Bangladesh convened a high-level inception seminar to build awareness and strengthen stakeholder capacity. Bringing together government, industry, academia and grassroots maritime stakeholders, the event introduced the Ocean Center's vision, identified four national priority areas, and fostered broad commitment to advancing Bangladesh's sustainable blue economy.
- **Capacity Building and Knowledge Exchange:** As part of the visit programme, Ocean Center Bangladesh organised a capacity-building dialogue at the National Maritime Institute, Chattogram. Bringing together seafarers, maritime industry leaders and academia, the session promoted knowledge exchange on the Ocean Center's priorities, maritime safety, decarbonisation and emerging blue economy challenges, strengthening stakeholder understanding and collaboration.
- **Strengthening Capacity in the Industrial Fishing Sector:** In a complementary engagement during the visit, Ocean Center Bangladesh convened a capacity-building dialogue at Hotel Agrabad, Chattogram. The event brought together industrial fishing vessel owners, skippers, engineers, crew members, academia, government representatives and industry leaders to strengthen understanding of the Ocean Center's priorities, occupational safety, sustainable fishing, decarbonisation and responsible blue economy practices through collaborative knowledge exchange.
- **Building Capacity and Trust with Coastal Fishing Communities:** During the Global Leads' field visit in March 2026, Ocean Center Bangladesh convened a community dialogue in Cox's Bazar to strengthen the capacity of local fishers and informal maritime workers. The session promoted safer fishing practices, sustainable fishing and marine conservation while linking traditional knowledge with global ocean priorities. It also fostered strong community trust and support for the future initiatives of Ocean Center Bangladesh and the Lloyd's Register Foundation.

3 UN Ocean Conference 3 (UNOC-3) Engagement:

Strategic global engagement has been instrumental in strengthening our technical capacity and amplifying our impact. Our participation in the Third UN Ocean Conference (UNOC-3) provided a high-level platform to advocate for integrating safety into the global ocean agenda, network with international partners, and showcase Bangladesh's locally-led model. This support includes LRF's systemic vision of safety, access to global safety data and research, and mentorship in developing evidence-based advocacy and training materials, ensuring our initiatives are both locally relevant and globally informed.

The Methodological Innovation

Effective maritime governance connects local communities with national policy through co-design, multilevel collaboration, and a locally-led, globally-connected framework. This approach ensures safety and sustainability initiatives are practical, culturally relevant, and aligned with UN standards:

- **Co-design Principles:** Safety and sustainability strategies are developed collaboratively with fishers, seafarers, coastal communities, industry and the private sector, rather than through externally driven approaches. Continuous stakeholder engagement ensures that solutions are locally relevant, practical, inclusive and responsive to on-the-ground realities.
- **Multilevel Collaboration:** Ocean Center Bangladesh serves as a collaborative platform that unites government, private sector, industry, academia, civil society and coastal communities. By fostering inclusive dialogue and partnerships, it aligns local knowledge with national priorities, mobilises private sector leadership and promotes coordinated action to advance safety, sustainability and inclusive blue economic growth.
- **Locally Led, Globally Connected:** While the methodology is based on specific local situations, it scales these local insights by adapting them to international UN Global Compact frameworks.



Stakeholder Engagement

The OCB manages stakeholder engagement through a strategic Mapping and Recruitment process. By identifying key actors within the blue economy—ranging from government regulators to local maritime industries—the Centre categorizes partners based on their influence and interests. This allows for targeted recruitment, ensuring each stakeholder understands how collaboration specifically supports their economic or environmental objectives.

Engagement is deepened through Bilateral Meetings led by the Country Lead to build high-level trust and alignment. During these sessions, the Centre focuses on policy integration with Government officials,

sustainable investment and logistics with Industry leaders, and the transition of scientific research into actionable policy with Academia. These one-on-one dialogues ensure that the Centre's initiatives are grounded in the practical needs of each sector.

Furthermore, the Centre maintains a strong presence through Participation in External Events, such as international conferences and seminars. Through its presence as a speaker and moderator at these venues, OCB asserts itself as a strategic authority in maritime affairs. This active involvement provides a platform to monitor global trends, network with hard-to-reach partners, and advocate for the sustainable management of marine resources.

Workshops

In-country workshops

Ocean Centres Bangladesh successfully executed an impactful series of eight nationally tailored workshops. This strategic initiative grounded the organization's safety and sustainability agenda directly within the unique realities of Bangladesh's evolving ocean economy. Every session brought together critical local stakeholders, including government officials, industry leaders, coastal communities, and financial institutions. Together, these participants accurately diagnosed pressing sector challenges and co-created immediate, actionable pathways forward.

The comprehensive series launched by focusing on **Shipping and Ports**. It specifically addressed the global imperative and local opportunities regarding maritime decarbonization during **Workshop 1: Reducing Emissions, Sailing Forward**. This was immediately followed by **Workshop 2: Building Safe Port Infrastructure**, which dedicated its focus to constructing climate-resilient and safe port infrastructure. In **Workshop 3**: The theme focuses on **Empowering Bangladesh's Fishing Sector**. It also addresses adapting to climate change and overcoming management barriers to ensure sustainable sector growth.

Direct engagement with the **Fishing and Aquaculture** sectors formed a paramount pillar of the initiative. The outreach began with a foundational community-level dialogue directly engaging local fishers on critical, life-saving safety practices during **Workshop 4: Safe Seas, Secure Life**. The real-world insights gathered from this grassroots session directly informed **Workshop 5: Bangladesh's Blue Economy Potential: Growth in Fishing and Aquaculture**, which focused on strategic innovations for sustainable sector growth.

Recognizing the transformative power of **Offshore Renewables Potentials**, two specialized workshops explored this nascent industry. **Workshop 6** examined the precise policy frameworks and technological innovations required to unlock the country's offshore wind and wave potential. **Workshop 7: Bangladesh's Offshore Renewable Energy Potential**, tackled the practical complexities of balancing this sustainable development with economic affordability and commercial viability. Finally, the critical enabler of **Finance and Investment in Ocean Industries** took center stage during **Workshop 8**. This concluding session focused heavily on aligning capital with long-term sustainability goals. Participants successfully formulated strategies to make safety, equity, and climate resilience central, non-negotiable metrics for funding Bangladesh's expanding blue economy.

Cross-country Online Workshops

Ocean Center Bangladesh participated in cross-country online workshops to exchange knowledge, share experiences and strengthen regional collaboration for sustainable blue economy development. The highlights of the workshops are:

UNLOCKING BLUE FINANCE FOR SUSTAINABLE OCEAN DEVELOPMENT

At an Ocean Centres Cross-Country Interactive Dialogue, the Managing Director of the Chittagong Stock Exchange highlighted Bangladesh's 118,813 km² of maritime territory as a strategic asset for the country's blue economy, which currently contributes approximately US\$6.2 billion, or 3% of national GDP. Realising its potential in offshore wind, green shipping and marine biotechnology requires addressing an estimated US\$1.2 billion annual investment gap through innovative financing, including blue bonds, Sukuk, credit guarantees and climate finance. These approaches can attract private investment, accelerate decarbonisation and drive sustainable, climate-resilient blue economic growth.

ACCELERATING MARITIME DECARBONISATION THROUGH REGIONAL COLLABORATION

On 21 May 2026, the Ocean Centres held an Interactive Dialogue on Maritime Decarbonization featuring speakers from the IMO, Lloyd's Register, and four Asian nations. The session addressed global regulations, safety, human factors, and tailored national pathways for shipping decarbonization. The speaker from Bangladesh said that Bangladesh, heavily dependent on its maritime sector for trade, is advancing decarbonization through the development of a National Action Plan (NAP) and regulatory updates under IMO's GreenVoyage2050 program. Key initiatives focus on port electrification, capacity building, and launching a national vessel emission census by 2027, while addressing the core challenge of accessing flexible green finance for implementation.



Community Building

Enhanced community connectivity directly improves safety focus across the ocean industry by creating multiple reinforcing pathways.

FIRST

it enables vital vertical integration of knowledge. Practical hazards reported by fishers on the water can directly inform national policy drafting and the design of targeted academic research, bridging the gap between frontline workers and regulators.

SECOND

it fosters horizontal accountability across diverse sectors. Maritime industries can actively share safety innovations with one another, while financial institutions gain clearer, data-driven insight into the operational risks of the specific projects they fund. This mutual transparency encourages higher standards worldwide.

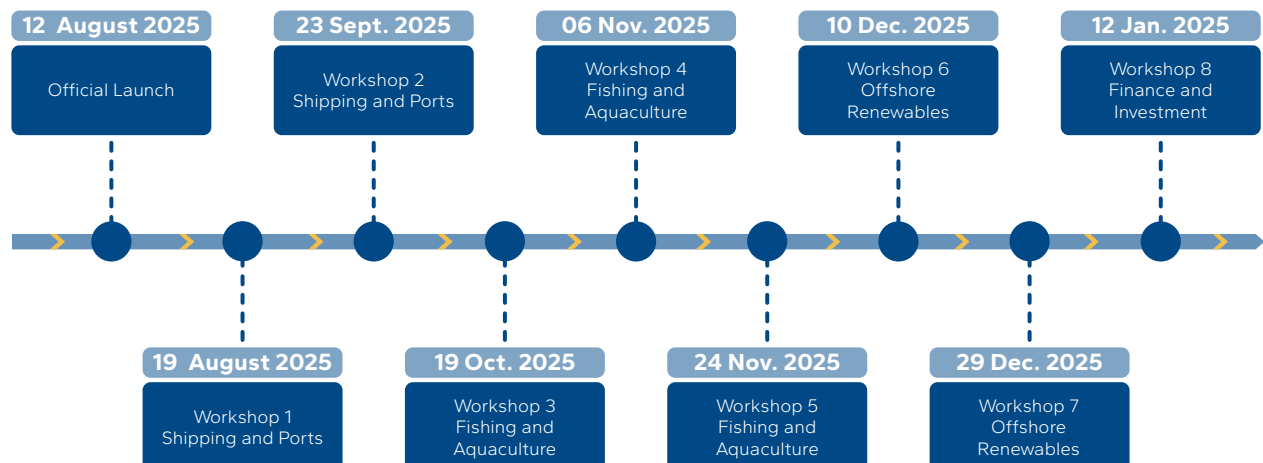
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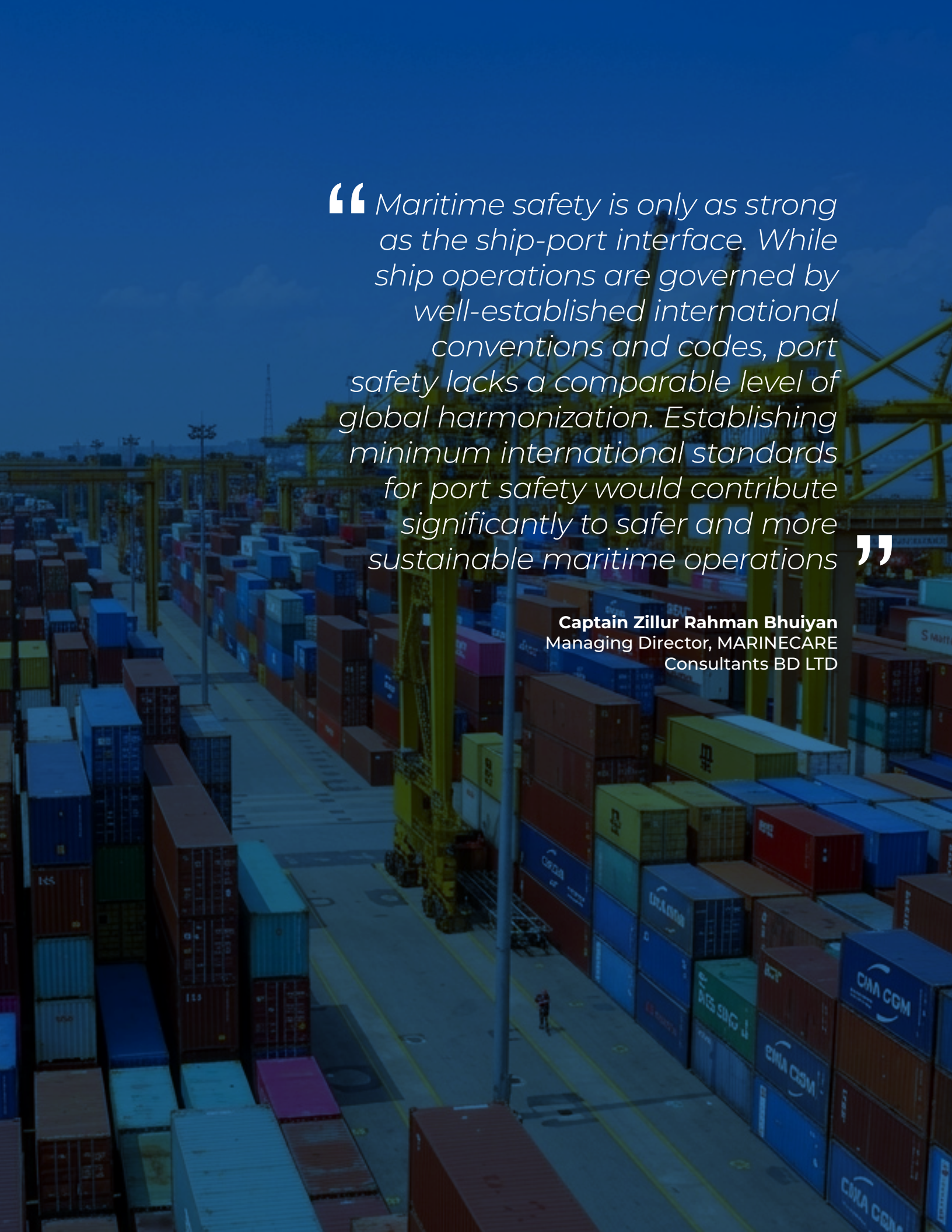
it establishes a rapid feedback loop for identifying emerging risks. Modern threats like severe climate change or unproven technologies can be flagged instantly. This allows the entire network to adapt safety protocols and training proactively rather than reactively.

FINALLY

a connected community ensures that safety is never just a compliance checkbox. Instead, it becomes a continuously reinforced cultural norm. This shared culture is actively upheld, practiced, and advanced by every single link in the global maritime value chain, protecting both human lives and valuable marine resources.

Ocean Centres Bangladesh Timeline





“ Maritime safety is only as strong as the ship-port interface. While ship operations are governed by well-established international conventions and codes, port safety lacks a comparable level of global harmonization. Establishing minimum international standards for port safety would contribute significantly to safer and more sustainable maritime operations ”

Captain Zillur Rahman Bhuiyan
Managing Director, MARINECARE
Consultants BD LTD

OUTPUTS

Blue Safety Wheel

The Blue Safety Wheels translate the findings from the Bangladesh process into a structured view of the main safety challenges affecting five ocean industries: shipping, ports, fishing, aquaculture, and offshore renewables. It groups the findings under five safety dimensions: worker safety, operational safety, environmental and climate-related safety, regulatory and governance gaps, and safety-related finance and investment constraints. This helps show where risks are sector-specific, where they recur across industries, and where coordinated interventions could deliver wider impact.



- 1:** Training gaps for handling toxic fuels.
- 2:** Risks from retrofitting vessels for compliance and new operational protocols.
- 3:** Risks of spills.
- 4:** Fragmented oversight between multiple ministries.
- 5:** High upfront costs for green technology and infrastructure development.





1: High accident rates from manual handling and chemical exposure.

2: Aging infrastructure; transition to on-shore power supply and bunkering of new fuels.

3: Climate vulnerability to sea-level rise and air and water pollution from port operations.

4: Weak governance; underreporting of accidents.

5: High costs associated with importing advanced technologies and specialized equipment.



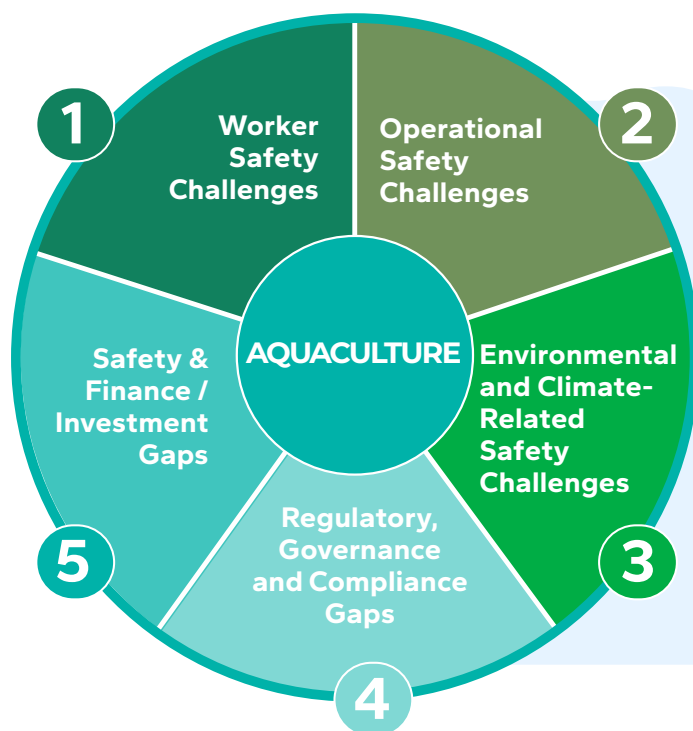
1: High mortality due to drowning and lack of safety training.

2: Overcrowded, and poorly maintained artisanal vessels.

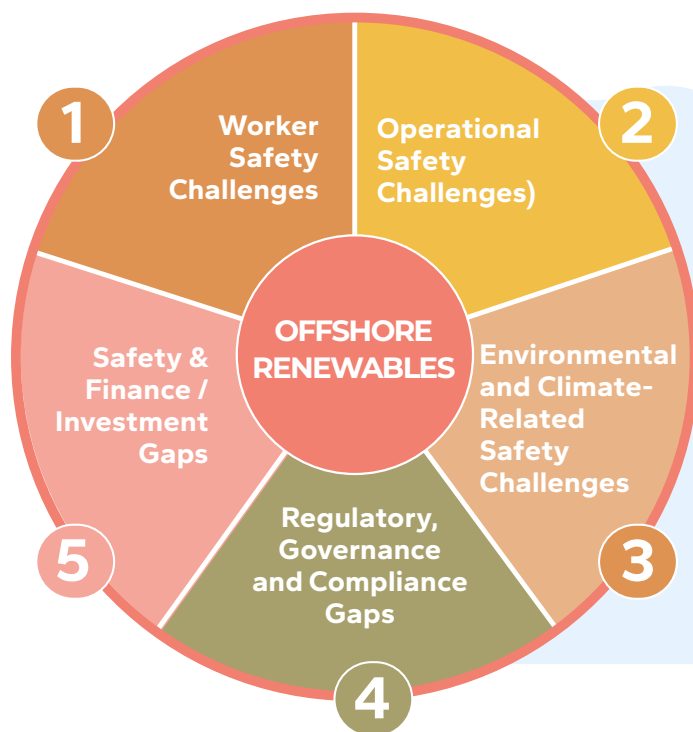
3: Lack of early warning systems for storms.

4: Inadequate safety equipment.

5: Vulnerability to loan sharks (dadon) and extortion, eroding financial stability.



- 1:** Risk of injuries in pre-processing.
- 2:** Weak traceability systems from “farm to fork” leading to high rejection rates in international markets.
- 3:** Contamination from antibiotic residues and microplastics; mangrove destruction.
- 4:** Lack of international certifications.
- 5:** Vulnerability to loan sharks (dadon) and extortion, eroding financial stability.



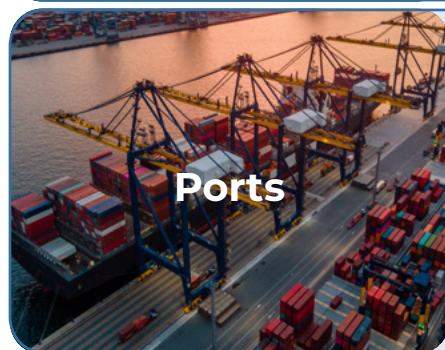
- 1:** Lack of trained workforce for hazardous offshore construction.
- 2:** Structural safety risks from cyclones.
- 3:** Collision risks for birds and mammals.
- 4:** Absence of a dedicated Offshore Renewable Energy Acts.
- 5:** High capital expenditure and perceived investment risks.

Opportunities for a Safe Blue Growth

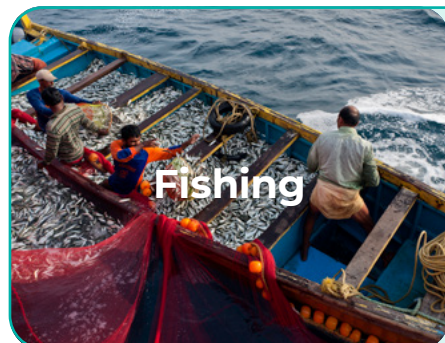
Modern, climate-resilient, and safety-aligned operations boost productivity, reduce losses, improve worker well-being, and expand access to global markets and certifications. In this way, safety becomes a growth enabler:



- Early adoption of IMO GHG strategy; NAP implementation; green port incentives.
- Retrofitting for EEXI/CII; alternative fuel pilots (LNG, biofuels); digital monitoring and reporting.
- Implement voyage optimization measures for the existing ocean-going fleet to immediately improve CII ratings.
- Green shipping funds; PPPs for pilot projects; blue bonds for fleet modernizations.
- Upgrading existing ship-breaking yards with infrastructure for hazardous waste management to meet international regulations.



- Integration of SDGs into port master plans; mandatory OSH and climate resilience standards.
- Develop and implement a National Port Safety and Sustainability Roadmap.
- Onshore power supply; LNG bunkering; renewable energy use in ports.
- Incentivize renewable energy use and waste management systems.
- Implementing digital port management systems, IoT sensors, and satellite navigation to improve cargo handling efficiency.



- Ratification of STCW-F, Cape Town Agreement, ILO C188; social protection schemes.
- VHF/GPS distribution; weather alert systems; VMS for IUU tracking; mobile safety training.
- Safe landing jetties; non-slip surfaces; shaded rest areas; early warning towers.
- Develop affordable insurance and welfare schemes for fishers and fish farmers.
- Develop and enforce mandatory Basic Fisher Safety Training (BFS) modules via mobile training units.



- Promote immediate adoption of Good Aquaculture Practices (GAP) among farmers.
- Develop and enforce internal traceability protocols for processors to track shrimp from farm to processing plant.
- Update internal company policies to phase out the use of non-essential antibiotics in aquaculture.
- Launch training programs for farmers and processors on HACCP principles, quality assurance.
- Implement immediate quality control checks at pre-processing centers to ensure cold chain integrity.



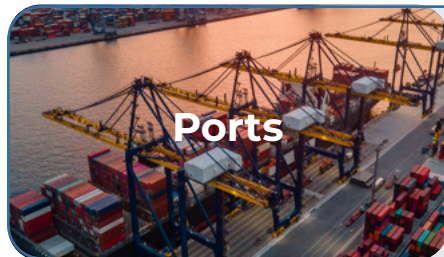
- Enact Offshore Renewable Energy Act to clarify seabed leasing, licensing, and environmental compliance.
- Establish a single-window clearance system under SREDA for offshore projects.
- Launch targeted training programs on offshore project management, marine safety, and grid integration.
- Initiate high-resolution wind and bathymetric data measurement campaigns in priority zones.
- Develop PPAs and risk guarantee instruments and pooled insurance mechanisms to mitigate risks.

Finance and Investment Implications of Safety Challenges Across Ocean Industries

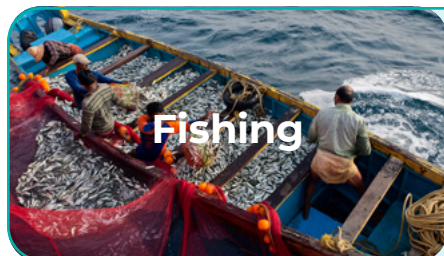
In the ocean industries, safety is a critical financial driver. Strengthening safety systems reduces perceived risk and costs while boosting investor confidence. This makes modernization and climate projects more bankable, unlocking private and concessional capital for sectors like shipping, fishing, and offshore renewables.



- Higher premiums due to handling risks associated with new fuels like ammonia and hydrogen.
- High upfront costs for retrofitting existing ships, building new vessels with green technology.
- A large and varied fleet is aging, poorly maintained and inefficient, making it challenging for owners to recover capital during fleet upgrades.



- High upfront costs for developing port bunkering infrastructure for alternative fuels.
- High costs associated with importing advanced technologies and specialized equipment for port.
- Difficulty in attracting private investment due to perceived regulatory risks and long payback periods for green technologies.



- Very high premiums or no coverage due to high mortality, unseaworthy vessels, and lack of safety equipment.
- Vulnerability to loan sharks (dadan) and extortion, eroding financial stability.
- No insurance, healthcare, or pension schemes for fishermen and their families.



- Insurance costs rise due to contamination risks, weak traceability, and non-compliance with international standards.
- High feed costs (50%+ of production); limited access to agricultural subsidies or insurance.
- Pollution and habitat destruction (e.g., mangrove loss for coastal shrimp farming) threaten the long-term viability of the sector.



- High capital expenditure and perceived investment risks.
- Limited high-resolution oceanographic and metocean data for project bankability.
- High premiums for cyclone exposure, construction risks, and environmental liabilities.

A CALL TO ACTION: RECOMMENDATIONS BY ACTION AREA

Based on the findings of this report, the following recommendations provide a practical roadmap for action across each Ocean Centres Action Area. While they emerged from a broad multi-stakeholder dialogue involving government, industry, the financial sector, academia, trade unions and civil society, they are primarily directed to businesses, governments and the finance sector, recognizing their capacity to shape policy, mobilize investment and drive implementation at scale. Their successful implementation, however, will depend on the continued collaboration of all sectors of society engaged in the Ocean Centres Initiative.

To support implementation, the recommendations are organized into two indicative time horizons according to their expected level of complexity, coordination and investment requirements. While some actions can be initiated immediately using existing capacities, others require longer-term planning, institutional strengthening and broader collaboration.

SHORT-TERM ACTIONS (UP TO ONE YEAR)

Actions that can be initiated in the near term using existing resources and institutional capacities. They can address immediate gaps, such as reviewing regulations, strengthening safety procedures, and launching training.

MEDIUM- TO LONG-TERM ACTIONS (BEYOND ONE YEAR)

Actions requiring broader coordination, policy reform, institutional strengthening or sustained investment over time. They involve structural reforms like new regulatory frameworks, infrastructure modernisation, and Blue Finance enablement.



Shipping and Ports

Short Term Recommendations

BUSINESS

- Implement voyage optimization measures (e.g., Just-in-Time arrival, speed optimization) for the existing ocean-going fleet to immediately improve CII ratings.
- Conduct pilot projects for Engine Power Limitation (EPL) on selected vessels to achieve EEXI compliance.
- Develop and disseminate internal guidelines for ship owners on complying with EEXI and CII reporting requirements.
- Conduct risk assessments and emergency drills at Chittagong, Mongla, and Payra ports.
- Launch pilot e-learning modules on port safety and environmental management.
- Integrate climate resilience and SDG targets into port master plans.

GOVERNMENT

- Form a national port resilience task force with representatives from government, industry, and training institutions.
- Develop and implement a National Port Safety and Sustainability Roadmap.
- Establish a national inter-ministerial Task Force, as recommended by GreenVoyage2050, to coordinate decarbonisation efforts.
- The Department of Shipping, as the focal point, should proceed with the formal establishment of the National Task Force (NTF) comprising all core stakeholders.
- Define National Cybersecurity Standards for critical port infrastructure.
- Formulate national maritime decarbonisation strategy.

FINANCE

- Fund the development of port infrastructure for on-shore power supply, LNG bunkering, and eventually, facilities for methanol and ammonia.
- Fund deep-sea ports (e.g., Matarbari, Bay Terminal) with climate-resilient designs.
- Support digitalization (e.g., Vessel Traffic Management and Information System, Terminal Operating Sys) and automation.
- Incentivize renewable energy use and waste management systems.
- Introduce Cyber-Risk Insurance products tailored for automated terminal operations.
- Finance academic-industry research collaborations to study alternative fuel feasibility and workforce impacts.

Medium-Long Term Recommendations

BUSINESS

- Begin transitioning coastal and new-build vessels to near-term solutions like LNG and B30 biofuels, while planning for methanol and ammonia as medium-to-long-term options.
- Implement Digital Twin technology and Port Community Systems (PCS) to optimize cargo flow and reduce vessel idle time.

GOVERNMENT

- Expedite the development of the NAP with GreenVoyage2050 support, turning it into a binding national strategy with clear targets.
- Enact policies that incentivize green shipping, such as port fee discounts for high CII-rated ships, and formally integrate MARPOL Annex VI into national law.

FINANCE

- Fund the development of port infrastructure for on-shore power supply, LNG bunkering, and eventually, facilities for methanol and ammonia.
- Allocate funds for research into locally relevant solutions, such as the integration of solar power on inland vessels and the development of domestic biofuel supply chains.

Continue in next page

Medium-Long Term Recommendations (cont.)

BUSINESS

- Develop a company-wide plan for retrofitting existing ships with energy-efficient technologies and for ordering newbuilds with future-proof, low-carbon propulsion systems.
- Collaborate with the government and research institutions on pilot projects for green technology and alternative fuel trials.
- Enforce mandatory OSH training and compliance with IMO/ILO standards.
- Integrate climate resilience and SDG targets into port master plans.
- Implement carbon footprint monitoring and reduction targets.

GOVERNMENT

- Implement robust systems for monitoring and reporting fuel consumption and emissions data to ensure compliance with IMO DCS and CII requirements.
- The Department of Shipping, as the focal point, should proceed with the formal establishment of the National Task Force (NTF) comprising all core stakeholders.
- Establish port-specific safety committees and inter-agency task forces.
- Align national maritime strategy with SDGs and Blue Economy goals.
- Foster international partnerships for trainer development and curriculum modernization.

FINANCE

- Invest in Fleet Modernization: Develop a company-wide plan for retrofitting existing ships and for ordering newbuilds with future-proof, low-carbon propulsion systems.
- Fund deep-sea ports (e.g., Matarbari, Bay Terminal) with climate-resilient designs
- Support digitalization (e.g., VTMS, TOS) and automation by investment.
- Incentivize renewable energy use and waste management systems.
- Invest in Technology: Invest in Pilot AI, IoT, and digital twin technologies in key terminals. Also invest to develop cybersecurity protocols and incident response plans.



Fishing and Aquaculture

Short Term Recommendations

BUSINESS

- Distribute lifejackets, VHF radios, and EPIRBs to artisanal fishers; improve first aid kits on vessels.
- Promote immediate adoption of Good Aquaculture Practices (GAP) among farmers for better water management and biosecurity.
- Implement immediate quality control checks at pre-processing centers to ensure cold chain integrity.
- Update internal company policies to phase out the use of non-essential antibiotics in aquaculture.
- Launch rapid training programs for farmers and processors on HACCP principles, quality assurance, and sustainable practices.
- Empower women in coastal communities through training for roles in pre-processing centers and value-added operations.

GOVERNMENT

- Develop and enforce mandatory Basic Fisher Safety Training (BFS) modules via mobile training units.
- Develop and disseminate simple, pictorial checklists for pre-departure safety checks (vessel condition, safety gear).
- Establish a community-based protocol for reporting piracy and extortion attempts to local authorities anonymously.
- Organize workshops on the proper use and maintenance of VHF radios and GPS devices.
- Develop and enforce internal traceability protocols for processors to track shrimp from farm to processing plant.
- Develop a national Marine Spatial Planning (MSP) framework to resolve coastal use conflicts and protect critical habitats like mangroves.

FINANCE

- Facilitate duty-free import of raw materials under bonded warehouse facilities to enable year-round processing and value addition for export.
- Invest in R&D and infrastructure for value-added products (e.g., ready-to-eat shrimp) to move up the global value chain.
- Design "Blue Bonds" to fund ecosystem restoration projects and sustainable hatchery infrastructure.
- Invest in cold storage and value-added processing to reduce post-harvest losses.
- Issue working capital loans specifically for women's groups focused on secondary fish processing and product diversification.
- Develop affordable insurance and welfare schemes for fishers and fish farmers.

Medium-Long Term Recommendations

BUSINESS

- Strengthen VMS and onboard observer programs to combat IUU fishing.
- Adopt and enforce safety and labour standards aligned with international conventions.
- Promote eco-certification and traceability for market access and sustainability.
- Support renewable energy use (solar, biogas) in aquaculture operations.

GOVERNMENT

- Ratify and domesticate STCW-F, IMO Cape Town Agreement, and ILO C188.
- Establish a National Fisher Training and Certification Authority (NFTCA).
- Designate and effectively manage Marine Protected Areas (MPAs).
- Integrate climate-resilient aquaculture into national adaptation plans.

FINANCE

- Invest in cold storage and value-added processing to reduce post-harvest losses.
- Develop affordable insurance and welfare schemes for fishers and fish farmers.
- Formulate and implement a comprehensive social protection scheme for fishermen, including accident insurance, health benefits, and support during fishing bans.

Continue in next page

Medium-Long Term Recommendations (cont.)

BUSINESS

- Integrate aquaculture officially into the agriculture sector to provide access to subsidies, finance, and insurance.
- Simplify and digitize the farm registration process, especially for Vannamei shrimp.

GOVERNMENT

- Designate specific “Shrimp Culture Priority Zones” for tailored infrastructure and policy support.
- Develop and enforce stricter regulations for fishing vessel design, capacity, and mandatory annual safety inspections.

FINANCE

- Invest in public infrastructure at major landing centers, including safe jetties, clean water, sanitation, and shaded rest areas.
- Encourage the adoption of transparent and fair financing models to reduce fishermen's dependence on predatory loan sharks.
- Invest in R&D and infrastructure for value-added products (e.g., ready-to-eat shrimp) to move up the global value chain.



Offshore Renewables

Short Term Recommendations

BUSINESS

- Initiate high-resolution wind and bathymetric data measurement campaigns in priority zones.
- Strengthen Environmental Impact Assessments (EIAs) with robust baseline biodiversity studies.
- Develop community-based monitoring programs for marine environmental safety.
- Launch training programs for local workforce on offshore renewable energy installation and O&M.

GOVERNMENT

- Develop interim project approval guidelines for near-shore pilot projects under SREDA coordination.
- Conduct pilot studies and feasibility assessments for tidal and offshore wind projects (e.g., Sandwip Channel, Char Fasson).
- Initiate stakeholder engagement workshops to reduce conflicts (e.g., fishers, energy developers).
- Launch targeted training programs on offshore project management, marine safety, and grid integration for engineers and policymakers.

FINANCE

- Develop standardized Power Purchase Agreements (PPAs) and risk guarantee instruments to attract investment.
- Invest in port upgrades and local fabrication capabilities for offshore foundations and components.
- Leverage international climate finance (GCF, World Bank, ADB) for pilot projects.
- Launch FDI-attraction schemes specifically for the offshore sector, backed by sovereign guarantees to lower capital costs.

Medium-Long Term Recommendations

BUSINESS

- Develop industry-led safety and environmental standards for offshore construction and operation.
- Foster international joint ventures for technology transfer and skill development.
- Establish regional industrial clusters for component manufacturing, assembly to reduce logistics expenses.
- Develop standardized, corrosion-resistant technologies and modular designs to reduce costs.
- Implement AI-based monitoring and predictive maintenance systems for offshore installations.
- Collaborate with international partners for technology transfer and capacity building.

GOVERNMENT

- Enact a dedicated Offshore Renewable Energy Act to clarify seabed leasing, licensing, and environmental compliance.
- Establish a single-window clearance system under SREDA for offshore projects.
- Commitment to develop a National Ocean Data Program to support project planning.
- Adopt a Marine Spatial Planning (MSP) framework to zone marine areas for energy, conservation, and fishing.
- Adopt "polluter pays" principles and enhance environmental reporting.
- Formation of an apex body for ocean governance and MSP implementation.

FINANCE

- Develop standardized Power Purchase Agreements (PPAs) and risk guarantee instruments to attract investment.
- Invest in port upgrades and local fabrication capabilities for offshore foundations and components.
- Create pooled insurance mechanisms to mitigate project risks.
- Leverage international climate finance (GCF, World Bank, ADB) for pilot projects.
- Collaborate & invest in joint ventures with international partners for technology transfer and capacity building.
- Fund affordable housing and social infrastructure in port towns to support the influx of offshore wind sector workers.

Finance and Investment



Short Term Recommendations

BUSINESS	GOVERNMENT	FINANCE
- Establish a voluntary blue impact disclosure framework for companies. - Launch training programs for banks and SMEs on blue finance instruments. - Allocate funds for research into locally relevant solutions, such as the integration of solar power on inland vessels and the development of domestic biofuel supply chains. - Invest in Fleet Modernization: Develop company-wide plan for retrofitting existing ships with energy-efficient technologies (e.g., air lubrication systems) and for ordering newbuilds. - Invest in cold storage and value-added processing to reduce post-harvest losses. - Allocate funds for research into locally relevant solutions.	- Develop internal bank guidelines for blue loan eligibility and fast-track processing. - Incorporate specific “blue” criteria into national sustainable finance taxonomies to prevent “blue-washing”. - Fund the development of port infrastructure for on-shore power supply, LNG bunkering, and eventually, facilities for methanol and ammonia. - Support digitalization (e.g., VTMS, TOS) and automation - Develop affordable insurance and welfare schemes for fishers and fish farmers. - Facilitate duty-free import of raw materials under bonded warehouse facilities to enable year-round processing and value addition for export.	- Create a national blue project pipeline and pre-feasibility study fund). - Introduce tax incentives for blue bond issuances and sustainability-linked investments. - Fund deep-sea ports (e.g., Matarbari, Bay Terminal) with climate-resilient designs. - Incentivize renewable energy use and waste management systems. - Invest in Technology and Innovation- Pilot AI, IoT, and digital twin technologies in key terminals. - Invest in Technology and Innovation- Develop cybersecurity protocols and incident response plans.

Medium-Long Term Recommendations

BUSINESS	GOVERNMENT	FINANCE
- Launch training programs for banks and SMEs on blue finance instruments. - Adopt ESG-aligned impact measurement and reporting standards. - Establish a voluntary blue impact disclosure framework for companies. - Adopt international sustainability certifications (e.g., MSC for fishing) to improve product bankability and access to global export markets. - Foster international joint ventures for technology transfer and skill development. - Encourage the adoption of transparent and fair financing models to reduce fishermen's dependence on predatory loan sharks.	- Establish a Bangladesh Marine Authority to coordinate ocean governance (Finance). - Strengthen maritime spatial planning and enforce IUU fishing regulations (Finance). - Proposal to form a Blue Finance Task Force involving banks, regulators, and developers. - Commitment to develop a Bangladesh Blue Bond Framework by end of 2026. - Integrate blue economy into national development planning and fiscal policy. - Introduce tax incentives for blue bond issuances and sustainability-linked investments.	- Develop bankable project proposals with clear risk-mitigation strategies. - Engage in PPP structures with clear performance indicators and transparency clauses. - Leverage blended finance and guarantees (e.g., first-loss protection) to attract private capital. - Create a national blue project pipeline and pre-feasibility study fund. - Emphasis on moving from grant-based to blended finance models. - Leverage international climate finance (GCF, World Bank, ADB) for pilot projects.

CASE STUDIES

These four case studies provide practical and replicable examples of Bangladesh's emerging Blue Economy across key areas of sustainability, safety, innovation and inclusive growth. They highlight measurable approaches to reducing environmental and operational risks, strengthening worker safety, creating livelihoods, improving resource efficiency, and enhancing the competitiveness of Bangladesh's maritime sectors.

The case studies demonstrate how investments in green ship recycling, sustainable seaweed farming, green port operations, and safe deep-sea fishing can translate the principles of a safe and sustainable Blue Economy into practical outcomes. Drawing on operational experience and stakeholder engagement, they illustrate how technology, capacity building, responsible business practices and community participation can contribute to resilient and sustainable ocean-based development.

Taken together, these examples demonstrate that safety, environmental sustainability and economic development are mutually reinforcing. They provide practical models for scaling responsible investment, strengthening maritime livelihoods, and advancing a safer, more resilient and sustainable Blue Economy in Bangladesh.

1 CASE STUDY: PHP Ship Breaking and Recycling Industries Ltd.

PHP Ship Breaking and Recycling Industries Limited is Bangladesh's ultimate sustainability success story. Established in 1982 in Chattogram, the yard completely transformed an industry historically plagued by hazardous beaching practices into a model for green industrialization.

In 2017, PHP made history as the first Bangladeshi yard to achieve Hong Kong Convention (HKC) compliance via RINA and Class NK. It replaced soft mud flats with a 15,000-square-meter impermeable concrete floor, systematically cutting off toxic runoff from entering the Bay of Bengal. Equipped with advanced crane systems and negative-pressure asbestos decontamination units, the facility treats worker safety as a non-negotiable asset, achieving an outstanding record of over five years with zero major accidents.

This rigorous adherence to ISO 30000 and 45001 standards unlocked elite global markets. Major international shipowners, including Brazil's Vale and Japan's NYK Line, bypass traditional yards to dismantle their massive vessels at PHP. By proving that eco-friendly ship recycling boosts long-term profitability and secures future market access, PHP single-handedly paved the way for Bangladesh to ratify the HKC, inspiring dozens of neighboring yards to invest in a green maritime future.



2 CASE STUDY: Seaweed Farming

Seaweed farming is transforming coastal livelihoods in Bangladesh under the **Fisheries Livelihood Enhancement Project (FiLEP)**.

Implemented by the Department of Fisheries (DoF) and Japan International Cooperation Agency (JICA) since 2022, FiLEP has successfully introduced Gracilaria seaweed cultivation to communities in Cox's Bazar, overcoming harsh seas, heavy sedimentation, and weak markets. Through hands-on training, technical assistance, and continuous mentoring, the project established raft, open-water long-line, and pond-based cultivation methods. This comprehensive approach has built vital skills in harvesting, value chain development, and marketing, turning seaweed farming into a highly profitable, sustainable business.

Local farmers are already reaping the rewards. Ms. Anoara, a successful cultivator from Nuniarchara, shared her transformation: *"I never imagined seaweed could provide family income. With FiLEP's support, I have farmed successfully*

for five years, learned improved techniques, and gained the confidence to expand."

FiLEP's visible, community-centered success has sparked widespread enthusiasm, inspiring neighboring residents to adopt the practice. By equipping farmers to overcome natural barriers, the project significantly improves local incomes while building a resilient foundation for Bangladesh's emerging seaweed sector and broader blue economy.



3 CASE STUDY: Red Sea Gateway Terminal (RSGT) Bangladesh Ltd.

RSGT Bangladesh Ltd., a subsidiary of Saudi Arabia's Red Sea Gateway Terminal International, has achieved a landmark milestone by becoming the first private terminal operator in Bangladesh to earn the prestigious **Green Terminal Certification**. Awarded by Bureau Veritas, a global leader in testing and certification, this recognition evaluates the **Patenga Container Terminal (PCT)** at Chattogram Port against rigorous international standards for environmental sustainability, energy efficiency, and responsible operational management.

Operating under a 22-year concession agreement signed in December 2023, RSGT Bangladesh has successfully aligned its operations with global Environmental, Social, and Governance (ESG) benchmarks. Since launching international operations in 2024, the company has heavily modernized the facility while embedding green practices into daily workflows, specifically targeting optimized energy consumption, water conservation, eco-friendly waste treatment, and sustainable landscaping. This certification carries massive strategic weight for the

nation's trade ecosystem. As global shipping lines and cargo owners aggressively prioritize decarbonization and green-certified supply chains, PCT's new status drastically enhances Chattogram's attractiveness to international maritime stakeholders. Ultimately, RSGT's global expertise and green investments secure the port's competitiveness as the premier, future-ready gateway in the Bay of Bengal.



4 CASE STUDY: Deep Sea Fishers Limited (DSFL)

Deep Sea Fishers Limited (DSFL), led by Managing Director Enam Chowdhury, has revolutionized Bangladesh's maritime sector by turning deep-sea fishing into a benchmark for safety and innovation. By replacing aging vessels with purpose-built trawlers, DSFL unlocked the wealth of the blue frontier while protecting its fleet in the Bay of Bengal.

Safety begins with cutting-edge technology. The modernized fleet features anti-roll systems, GPS, fish finders, and echo sounders. Crucially, integrated AIS and VMS networks connect every trawler to a 24/7 Joint Monitoring Center for real-time tracking, collision avoidance, and immediate distress detection. Through the fish SAFE 2025 program, DSFL prioritizes human life by distributing life jackets, EPIRBs, and fire detectors, all surveyed annually by competent authorities. The recent addition of Link 4 SATCOM significantly enhances ship-to-shore communications. Crews receive rigorous training from experts in weather monitoring, elementary first aid, advanced firefighting, personal survival techniques, and medical care. Advanced Iridium and Inmarsat networks provide encrypted alerts, ensuring no vessel is ever out of reach. As safety

improves, fishermen confidently venture further. This powerful combination protects lives, helps fish stocks recover, and drives Bangladesh's sustainable blue economy forward.



KEY ACHIEVEMENTS

Through collaboration among government, the private sector, academia, development partners and coastal communities, Ocean Center Bangladesh has delivered significant outcomes that strengthen ocean safety, advance the blue economy and lay the foundation for future action. Key achievements include:

- 1 Positioned Bangladesh as a leading contributor to the global Ocean Centres network.** Through its active participation in the UN Global Compact–Lloyd’s Register Foundation Ocean Centres initiative, Bangladesh successfully translated global priorities into nationally relevant actions, demonstrating how international policy can be effectively localized through multi-stakeholder engagement.
- 2 Established Bangladesh’s first national multi-stakeholder platform for ocean safety.** Ocean Centre Bangladesh brought together government agencies, the private sector, industry leaders, academia, development partners, and civil society to jointly address safety challenges across the country’s blue economy, creating a foundation for long-term collaboration and evidence-based decision-making.
- 3 Strengthened Bangladesh’s international collaboration and knowledge exchange.** By actively engaging with six other Ocean Centre countries—India, Indonesia, the Philippines, Brazil, Ghana, and Kenya—Bangladesh became part of a global learning network that facilitates the exchange of good practices, innovative solutions, technical expertise, and policy experiences on ocean safety.
- 4 Introduced a harmonized risk-based approach to maritime safety.** Bangladesh adopted the globally recognized Blue Safety Framework to identify systemic safety risks in ports and shipping, fishing and aquaculture, offshore renewable energy, and finance and investment. This common methodology enables Bangladesh to benchmark its progress against international standards while addressing local priorities.
- 5 Developed the country’s first integrated evidence base on ocean safety challenges.** Through national workshops, stakeholder consultations, sectoral dialogues, and technical discussions, Ocean Centre Bangladesh generated a comprehensive repository of safety knowledge, stakeholder perspectives, and priority actions. This evidence now serves as an important reference for future policy development and investment planning.
- 6 Enhanced national capacity and awareness across the blue economy** The initiative significantly improved awareness of occupational safety, risk management, and sustainable maritime practices among government officials, the private sector, industry representatives, academia, and other stakeholders. It also highlighted emerging workforce skill requirements necessary for the future development of Bangladesh’s ocean economy.

7 Laid the foundation for Bangladesh's maritime decarbonisation and safety agenda. Through a series of eight national workshops, Ocean Center Bangladesh brought together government, the private sector, academia and development partners to develop a shared roadmap for safer, cleaner and more sustainable shipping. The initiative aligned national priorities with global decarbonisation commitments while ensuring that safety remained at the heart of the transition.

8 Established a coordinated action framework for strengthening Bangladesh's blue economy. Ocean Centre Bangladesh identified four national priority sectors—Ports and Shipping, Fishing and Aquaculture, Offshore Renewable Energy, and Finance and Investment—and fostered collaboration among government, industry, academia, and development partners to address governance gaps, improve safety culture, strengthen institutional coordination, and build long-term resilience against climate and operational risks.

9 Raised the international profile of Bangladesh as a proactive leader in ocean safety. Through its innovative localization of the Ocean Centres model, Bangladesh demonstrated strong national ownership, effective stakeholder engagement, and practical implementation approaches. The country's experience is now contributing to the wider global dialogue on building a safer, more resilient, and sustainable blue economy.

10 Created a strong foundation for future policy reforms and investment. The outcomes generated by Ocean Centre Bangladesh have provided policymakers and development partners with practical recommendations and strategic priorities that will support future reforms, mobilise investment, and guide the continued development of Bangladesh's ocean economy.



CONCLUSIONS

The inaugural year of Ocean Centres Bangladesh (OCB) has unequivocally demonstrated that maritime safety is the indispensable foundation upon which a truly sustainable, resilient, and equitable blue economy must be built. This comprehensive annual report has chronicled a pivotal structural shift: moving rapidly from recognizing safety as a peripheral compliance issue to embracing it as the central, non-negotiable keystone of ocean governance and industry practice across Bangladesh's vast waters.

The analytical data confirms that targeted, strategic investments in safety—ranging from advanced life-saving gear for artisanal fishers and green retrofits for commercial vessels to robust regulatory frameworks for offshore renewable energy installations—directly catalyze economic growth. These initiatives effectively de-risk maritime investments, enhance access to competitive international markets, boost daily labor productivity, and safeguard Bangladesh's most vital asset: its vulnerable coastal populations. By prioritizing human well-being alongside rapid structural modernization, the maritime sector can successfully turn systemic environmental and operational vulnerabilities into structured, bankable commercial opportunities.

Furthermore, this journey has successfully forged a new, deeply cohesive ocean community within the nation. Artisanal fishers, industrial leaders, national policymakers, institutional financiers, and leading academics now converge on a single common platform, actively dismantling decades of siloed, inefficient bureaucratic effort. This nascent coalition stands as a monumental operational achievement and our most crucial collaborative tool for the future. It ensures that strategic solutions are never imposed from above but are instead systematically co-created, deeply rooted in the lived realities of the Bay of Bengal, and completely owned by the people they are designed to protect.

Moving forward, this collaborative network will drive the comprehensive national policy reforms required to establish long-term ecological balance and economic maritime safety. By aligning localized safety protocols with global maritime standards, OCB will continue to champion an inclusive, thriving blue economy that leaves no coastal community behind, ensuring sustainable prosperity for generations to come.

“Moving forward, this collaborative network will drive the comprehensive national policy reforms required to establish long-term ecological balance and economic maritime safety...”



ACKNOWLEDGEMENTS

This annual report stands as a powerful testament to the transformative power of collective purpose and shared vision. First and foremost, our deepest gratitude goes to the resilient coastal communities, dedicated fishers, and vital ocean workers of Bangladesh. Their lived experiences, daily courage, and deep grassroots insights form the foundational truth upon which OCB is built, fueling our mission to turn persistent challenges into scalable, long-term solutions.

We gratefully recognize the vital support and collaborative spirit of our global partners, specifically the United Nations Global Compact and the Lloyd's Register Foundation. Your strategic trust, resources, and shared investment in a locally-led initiative have been absolutely crucial in transforming our ambitious vision into a tangible reality on the ground. We highly praise our exceptional global team for their tireless dedication, and we deeply commend the Lloyd's Register Foundation for their unwavering commitment to safety and impactful change worldwide.

We also extend our sincere thanks to our diverse speakers, academic contributors, and knowledge partners. Their specialized expertise and willingness to share technical data and innovative research have been instrumental in bridging the critical gap between local practices and global standards, greatly enriching our national dialogues and policy frameworks.

Furthermore, we thank the governmental agencies, institutional bodies, and local civil society organizations whose steadfast advocacy continues to champion equitable maritime governance.

Finally, we acknowledge the dedicated commitment of the entire OCB team. Their unwavering focus and tireless efforts ensure that the vital imperative of safety remains at the absolute heart of our nation's complex journey toward a sustainable blue economy. This comprehensive report is a true reflection of our shared endeavor to build a safer, more inclusive, and sustainable future for everyone.

Shahamin S. Zaman

Executive Director

UN Global Compact Network Bangladesh

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TESTIMONIALS



"For Bangladesh, the transition to renewable energy is not just a climate obligation; it is the cornerstone of our national resilience, transforming our high solar irradiance and vast coastal wind into the bedrock of permanent energy sovereignty."

Commodore Sharif Uddin Bhuiyan, BN (Retd)

Chairman
Elanor Solar Solution Bangladesh

"Bangladesh needs to accelerate its efforts toward reshaping its maritime industry to align with global climate goals. We should focus on developing an eco-friendly green shipbuilding industry, upskilling our maritime workforce across various categories for a zero-carbon future, and transforming our major seaports into green bunkering gateways equipped to supply the clean fuels of tomorrow—from LNG and methanol to ammonia and hydrogen."

Professor Dr. Mir Tareque Ali

Department of Naval Architecture & Marine Engineering,
Bangladesh University of Engineering and Technology



"A comprehensive health and insurance coverage system for fishers is essential to protect one of the most vulnerable workforces in the blue economy."

Commodore Syed Ariful Islam, BN (Retd)

Focal Point
Ocean Centre, Bangladesh





"With terrestrial space constraints limiting solar expansion, the sea is our next great frontier. By pushing for marine renewable resources, Ocean Centres Bangladesh helps our nation meet its 2030 energy targets and aligns the Blue Economy with our long-term sustainable development goals."

Dr. K M Azam Chowdhury

Director

International Centre for Ocean Governance, University of Dhaka

"'Fisheries and Aquaculture' are powerful engines of Bangladesh's Economy, serving as a cornerstone of economic growth, food security and employment. Their continued advancement is essential for building a stronger and more sustainable national economy."

Dr. Maria Zaman

Assistant Professor and Head of the Department
Department of Marine Fisheries and Aquaculture
Bangladesh Maritime University



"Maritime safety is only as strong as the ship-port interface. While ship operations are governed by well-established international conventions and codes, port safety lacks a comparable level of global harmonization. Establishing minimum international standards for port safety would contribute significantly to safer and more sustainable maritime operations."

Captain Zillur Rahman Bhuiyan

Managing Director

MARINECARE Consultants BD LTD

"Bangladesh must accelerate renewable energy deployment as a strategic national priority for her energy security, reduce import dependence, and shield the economy from fossil-fuel volatility. Scaling solar, hydro biomass, and wind is no longer optional; it is an urgent necessity for energy resilience, emissions reduction, and equitable electrification."

Dr. S M Rashidul Hasan

Assistant Professor, Department of Naval Architecture and Offshore Engineering, Faculty of Engineering and Technology, Bangladesh Maritime University,

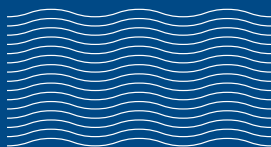


ANNEXES

To ensure that the main report remains concise and accessible, these Annexes provide supplementary information and supporting materials for readers wishing to explore specific topics in greater depth.

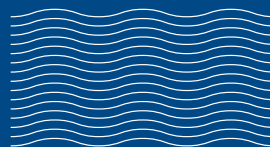
Annex I:

List of Contributors



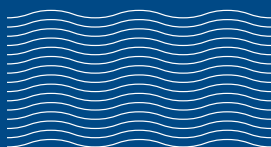
Annex II:

Glossary



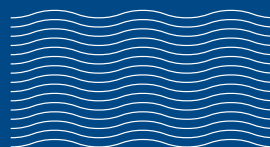
Annex III:

Testimonials



Annex IV:

Official Members





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