

INTRODUCTION The maritime industry, a cornerstone of global trade, is undergoing profound transformation amid a rapidly evolving regulatory environment that is poised to shape its current and future trajectory. Regulatory developments in this sector are being driven by pressing global challenges, including environmental sustainability, safety, and geopolitical shifts, each of which demands proactive engagement from stakeholders to ensure resilience and adaptability. At the forefront of regulatory reform is the imperative to address climate change by reducing greenhouse gas (GHG) emissions. The International Maritime Organization (IMO) has introduced ambitious decarbonization targets, including the goal of achieving net-zero GHG emissions from international shipping by 2050. To meet these objectives, the maritime sector is increasingly adopting cleaner fuels, energy-efficient vessel designs, and digital technologies that optimize voyage planning. These regulatory pressures, coupled with advancements in alternative propulsion systems such as hydrogen and ammonia-based fuels, signal a shift toward a more sustainable future for the industry. Also, safety continues to be a critical regulatory priority as the industry works to mitigate risks associated with vessel operations, piracy, and natural disasters. Recent high-profile maritime accidents have led to the introduction of stricter safety protocols (Amendments to Annex VI of MARPOL were adopted on 22 March 2024 by the IMO while the appendix IX of MARPOL Annex VI [information to be submitted to the IMO Ship Fuel Oil Consumption Database was revised to enhance the granularity of annual fuel oil consumption data to be collected and reported. The amendments enter into force on 1 August 2025, which is part-way through the 2025 reporting calendar year), enhanced training programs for seafarers, and the deployment of advanced monitoring systems. Furthermore, regulators are focusing on improving emergency response frameworks, ensuring that search-and-rescue operations and incident containment efforts are robust and effective. The shifting geopolitical landscape has amplified concerns over maritime security, particularly in key chokepoints such as the Strait of Hormuz, the Gulf of Guinea, and the South China Sea. Increasing incidences of piracy, territorial disputes, and sabotage have prompted international bodies to enhance coordination and enforcement mechanisms. Collaborative initiatives, such as the IMO's regional security partnerships and the deployment of multinational task forces, aim to safeguard vital shipping routes and promote maritime stability.





Red Sea Crisis: Implications for Africa's Maritime and Trade Dynamics

The escalation of attacks on commercial vessels in the Red Sea since November 2023 has had far-reaching consequences for global shipping and trade. These disruptions have forced a significant number of ships to bypass the Suez Canal, opting instead for the longer and more costly route around the Cape of Good Hope. This rerouting has not only increased congestion at South African ports but has also created economic opportunities for nations such as Madagascar, Mauritius, Namibia, and Tanzania. These countries, strategically located along maritime routes connecting Asia and Europe, are now positioned to benefit from the shift in shipping patterns. However, while some regions stand to gain, others face severe challenges.

East African nations, whose trade heavily relies on the Suez Canal, have been particularly vulnerable to the disruptions. For instance, Djibouti and Sudan depend on the canal for approximately 31% and 34% of their foreign trade volumes, respectively. The crisis has led to notable delays in cargo deliveries, resulting in shortages of perishable goods and standard containers. This has adversely affected critical supply chains for agricultural exports such as avocados, tea, and coffee—key commodities for East African economies. Prolonged delivery times have not only undermined trade revenues but also heightened food security concerns in some regions, exacerbating existing vulnerabilities.



Adding to these challenges is the ripple effect on container availability. The disruption has caused shipping carriers to prioritize routes serving high-revenue markets in Europe and the United States, leaving regions like Africa with fewer empty containers—a trend reminiscent of the inequities witnessed during the COVID-19 pandemic. As African exporters struggle with the scarcity of containers and increased shipping costs, the crisis underscores the continent's ongoing dependence on external shipping networks and highlights the urgent need for investment in resilient trade infrastructure and regional maritime capacity. The Red Sea crisis has thus amplified the stakes for Africa, revealing both the vulnerabilities and the potential opportunities inherent in its maritime and trade systems.

New Environmental Restrictions in the Red Sea and Gulf of Aden Special Areas (Effective 1 January 2025)

From 1 January 2025, new environmental restrictions will come into effect for the Red Sea and Gulf of Aden Special Areas, reflecting the increasing emphasis on preserving marine ecosystems and mitigating the impacts of maritime activities. These regulations, developed under the framework of MARPOL (the International Convention for the Prevention of Pollution from Ships), impose stringent controls on the discharge of oil, oily mixtures, and garbage. For ships of 400 gross tonnage and above, the discharge of oil or oily mixtures will be prohibited unless specific conditions are met. These include ensuring that the ship is en route, processing the effluent through compliant oil filtering equipment, and maintaining an oil content not exceeding 15 parts per million. Furthermore, discharges originating from cargo pump room bilges or containing cargo residues are strictly forbidden, while oil tankers may only discharge clean or segregated ballast water. These measures aim to reduce oil pollution in these ecologically sensitive regions and align with global efforts to enforce sustainable shipping practices.

In addition to the oil discharge restrictions, new limitations will apply to the disposal of garbage within the Red Sea Special Area, further emphasizing environmental protection. Ships may only discharge food waste while en-route and must do so at least 12 nautical miles from the nearest land. The food waste must be comminuted or ground to a size capable of passing through a screen with openings no larger than 25 millimeters, and it must not be contaminated with any other type of garbage. These requirements are consistent with Regulation 6 of MARPOL Annex V and are intended to minimize the impact of ship-generated waste on marine life and coastal ecosystems. These tighter controls reflect the recognition of the Red Sea as a critical marine biodiversity hotspot, where even small pollutants can have outsized ecological consequences.





The introduction of these measures signals a growing commitment to safeguarding marine environments through stricter regulation and operational oversight. Ships operating in these areas will need to implement advanced waste management systems and oil filtering technologies, alongside rigorous compliance protocols, to meet the new standards. These regulations not only advance environmental objectives but also reinforce the need for sustainable operational practices within the maritime industry. By fostering accountability and operational improvements, they aim to balance the demands of maritime commerce with the imperative to protect fragile marine ecosystems, contributing to a more sustainable and environmentally responsible global shipping framework.

Geopolitical Risks and Commodity Supply Shocks

Heightened geopolitical tensions, particularly the war in Ukraine and escalating conflicts in key maritime regions, pose significant threats to global commodity markets. Critical shipping routes such as the Suez Canal, the Red Sea, and the Black Sea are particularly vulnerable to disruptions, which could result in sudden supply shocks. For example, any disruption in the flow of oil or grain through these chokepoints could lead to spikes in global energy and food prices.

Although global food prices have moderated since their peak in March 2022, when the Food and Agriculture Organization of the United Nations (FAO) Food Price Index reached a record 172 points, they began rising again in 2024, climbing from 126 in February to 129 in June (UNCTAD, 2024a). These trends underscore the fragility of global food supply chains, which remain highly sensitive to geopolitical developments and climate-related disruptions.

Technological supply chains are similarly exposed, particularly in East Asia, a key hub for semiconductors and advanced manufacturing. Escalating tensions in the region, including disputes over Taiwan, threaten to disrupt the production and export of critical components such as chips, which are essential for numerous industries globally (WEF, 2024).

Economic Challenges Impacting Seaborne Trade

The medium-term outlook for maritime trade is shaped by a mix of downside and upside factors. On the downside, global economic uncertainties are dampening growth prospects in key markets. The International Monetary Fund (IMF) has downgraded growth projections for 2025 in response to reduced consumer spending, tight fiscal policies, and a slowing labour market in the United States. Similarly, persistent manufacturing weaknesses in Germany and policy uncertainties stemming from elections in 2024 across several countries are further eroding economic confidence. Trade tensions, protectionist policies, and high inflation—particularly in services and emerging markets—are likely to prompt central banks to maintain restrictive monetary policies, exacerbating concerns about the cost of living and potentially curtailing consumer demand (IMF, 2024).

Despite these challenges, there are significant upside factors that could drive a recovery in global seaborne trade. UNCTAD projects annual trade growth rates of 3.1% to 3.4%, supported by strong export performance in major Asian economies, particularly in technology-related sectors. Developing countries are playing an increasingly prominent role in global trade, with South-South trade growing at a faster pace than trade involving developed economies. Emerging sectors such as green energy and artificial intelligence are expanding rapidly, contributing to the diversification of global trade flows and fostering growth (UNCTAD, 2024g).



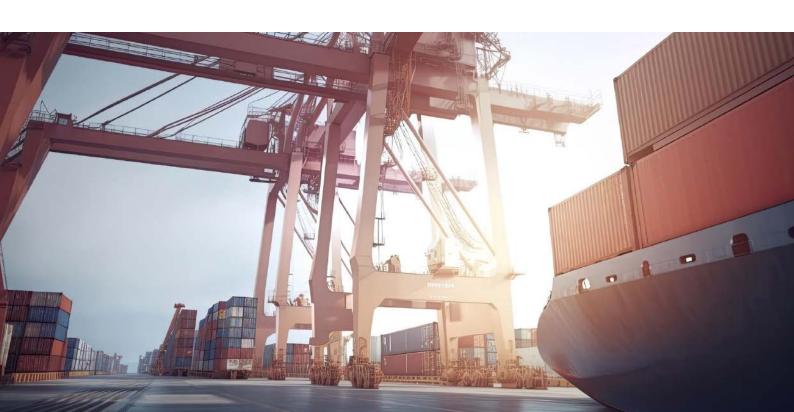
Transformations in Maritime Trade Dynamics

The landscape of international maritime trade has been significantly reshaped by recent disruptions and evolving geopolitical dynamics. In the last two years, the sector demonstrated remarkable resilience, recovering from increased vulnerabilities in global supply chains and disruptions at key maritime chokepoints. Events such as the war in Ukraine, geopolitical instability in the Red Sea, and environmental challenges affecting the Panama Canal have highlighted the critical importance of resilience-building strategies in ensuring the security and efficiency of global supply chains.

These shifts have also led to pronounced changes in trade patterns, driven by climate-related risks, energy security concerns, and evolving economic priorities. Variations across cargo segments are increasingly influenced by underlying factors such as consumer spending, inflationary pressures, and regional economic growth prospects. For instance, sectors linked to renewable energy, technology, and environmental sustainability are expected to drive future growth in maritime trade.

Mandatory Amendments to the IMSBC Code and Related Maritime Regulations

The International Maritime Organization (IMO) has introduced significant updates to several key conventions and regulations, marking an essential progression in maritime safety, environmental protection, and operational efficiency. Among these, Amendment 07–23 to the International Maritime Solid Bulk Cargoes (IMSBC) Code, adopted in June 2023, will become mandatory from 1 January 2025. This amendment introduces several critical changes. Shippers are now required to declare the "bulk density" of cargo, as mandated by SOLAS Regulation XII/10. Additionally, Appendix 1, which outlines the individual schedule of solid bulk cargoes, has been extensively revised to include new entries and remove obsolete ones. Appendix 3 has also been updated to include newly classified non-cohesive cargoes. Furthermore, the list of solid bulk cargoes exempts from requiring a Fixed Gas Fire Extinguishing System has been revised. These changes aim to improve the safety and handling of solid bulk cargoes while ensuring that industry practices remain aligned with evolving operational and safety standards.





Technological Advancements in Certification and Recordkeeping

Amendments to the Standards of Training, Certification, and Watchkeeping (STCW) Convention now allow seafarers' certificates to be issued in electronic format, provided that the required minimum information is accessible to the Administration in compliance with the STCW Code. Specifically, amendments to Regulations I/1 and I/2 and Section A-1/2 of the STCW Code set the standards for the information to be included in electronic certificates and ensure consistency in their application across different formats. Similarly, the Marine Environment Protection Committee (MEPC) has amended Appendix II of the Ballast Water Management (BWM) Convention to update the Ballast Water Record Book (BWRB). The revised BWRB includes additional required entries and updated formatting, applicable to international voyages and port calls outside the jurisdiction of the ship's Administration, excluding floating platforms, FSUs, and FPSOs. Furthermore, amendments to regulations A-1 and B-2 of the BWM Convention now allow for electronic record books, promoting harmonization with MARPOL Annexes and the NOx Technical Code. Ship operators are encouraged to consult the relevant IMO guidelines (MEPC.372(80)) for the use of electronic record books under the BWM Convention to ensure compliance.

Emission Control Area (ECA) Designation for the Mediterranean Sea

In a landmark environmental development, the Mediterranean Sea has been designated as an Emission Control Area (ECA) for sulphur oxides (SOx) and particulate matter (PM). This designation, effective as of 1 May 2024, is pursuant to amendments to MARPOL Annex VI, Regulation 14, and Appendix VII. However, the emission control requirements will become mandatory starting from 1 May 2025. From this date, ships operating within the Mediterranean ECA must either use fuel oil with a sulphur content of no more than 0.10% m/m or install and operate an approved exhaust gas cleaning system (EGCS). This initiative aims to significantly reduce air pollution and its adverse environmental and health impacts in one of the world's most heavily trafficked maritime regions, aligning with global efforts to mitigate climate change and improve air quality in coastal and marine environments.







Nigeria's maritime sector stands at a pivotal juncture in 2025, with opportunities for transformative progress through strategic reforms, targeted investments, and robust enforcement measures. As a critical component of the national economy and a gateway for international trade, the industry must address systemic challenges while leveraging emerging opportunities.

Reevaluating Port Concessions: The Imperative for Transparent Renewals

The expiration of several port concession agreements has introduced uncertainties that hinder private-sector investment and stall critical infrastructure upgrades. These concessions, originally intended to improve efficiency and encourage public-private collaboration, now require renewal under transparent terms to restore investor confidence. A proactive and accountable approach to renegotiating these agreements could unlock much-needed capital for port development and enhance the competitiveness of Nigeria's maritime gateways.

Prioritizing Safety: Addressing Inland Waterway Vulnerabilities

Safety remains a fundamental pillar of sustainable maritime operations. The tragic loss of 231 lives on Nigeria's inland waterways in 2024 underscores the urgency of addressing systemic safety gaps. A comprehensive overhaul of safety standards, combined with rigorous enforcement, capacity-building programs for operators, and the establishment of adequately equipped rescue stations, is essential. Enhanced safety measures would not only mitigate risks but also restore public confidence in the use of inland waterways as a viable mode of transportation.

Empowering Indigenous Shipowners: Resolving Financing Bottlenecks

The financial struggles of indigenous shipowners continue to impede their active participation in the maritime industry. Despite the establishment of the Cabotage Vessel Financing Fund (CVFF) under the Cabotage Act, disbursement inefficiencies and policy ambiguities have stymied its intended impact. Transparent allocation of the CVFF, alongside fiscal incentives such as tax breaks and low-interest loans, is critical for levelling the playing field. Strengthening indigenous operators would stimulate local capacity, enhance employment, and foster sustainable growth in cabotage trade.



Reimagining Port Infrastructure: Strategic Modernization for Efficiency

Nigeria's port infrastructure, particularly at key hubs such as Tin Can Island, Apapa, and Onne, faces significant operational inefficiencies due to aging facilities and inadequate access roads. Modernization efforts must prioritize the rehabilitation of quay aprons, the expansion of cargo-handling capacities, and the development of seamless multimodal transport networks. Strategic investments in these areas are critical to reducing congestion, minimizing turnaround times, and supporting Nigeria's ambitions of becoming a maritime logistics hub for West Africa.

Harnessing Marine and Blue Economy Potential: A Policy Roadmap for Sustainability

The anticipated Marine and Blue Economy Policy represents a landmark opportunity for the sustainable development of Nigeria's maritime resources. Anchored in principles of environmental stewardship, economic diversification, and community engagement, the policy could catalyse investment in marine tourism, aquaculture, renewable energy, and ecosystem conservation. Its timely release and meticulous implementation would provide a cohesive framework for harnessing the full potential of Nigeria's vast maritime domain.

Combating Oil Theft: A National Security and Economic Priority

Oil theft remains a persistent challenge undermining Nigeria's economic stability and maritime security. The government's intensified crackdown, encapsulated in Operation Delta Sanity (OPDS), seeks to restore order in the Niger Delta through the deployment of advanced military resources, including armed drones and attack helicopters. By securing critical oil infrastructure and addressing illicit activities, Nigeria aims to achieve an ambitious production target of 3 million barrels per day by 2025. Success in this endeavour would not only bolster national revenue but also enhance investor confidence in the oil and gas sector.





CONCLUSION

The maritime industry in 2025 will be shaped by a confluence of regulatory advancements, geopolitical shifts, technological innovations, and environmental imperatives. On the regulatory front, stricter measures under MARPOL, the IMSBC Code, and the Ballast Water Management Convention reflect a global commitment to sustainability, safety, and operational efficiency. These developments demand substantial adaptation by stakeholders, necessitating investments in cleaner technologies, advanced waste management systems, and digital transformation, including the adoption of electronic certificates and record books.

Geopolitical dynamics and environmental disruptions will continue to pose challenges, as seen in the Red Sea crisis and the reconfiguration of trade routes. These events highlight vulnerabilities in global supply chains and underscore the need for resilience-building strategies. Meanwhile, regional disparities in container availability and trade infrastructure reveal structural issues that require urgent attention to ensure equitable participation in global trade.

Despite these challenges, the outlook for the maritime industry remains cautiously optimistic. Projected growth in maritime trade, driven by increasing demand for bulk goods, containerized trade, and emerging sectors such as green energy, signals resilience and opportunity. However, achieving sustainable growth will depend on proactive adaptation to regulatory changes, investments in infrastructure modernization, and enhanced international collaboration to address shared challenges.

On the Nigerian scene, Nigeria must proactively align its maritime policies and practices with evolving global standards and trends to remain competitive in the international arena. The rapid transformation of the maritime industry, driven by stricter environmental regulations, advancements in technology, and shifting trade patterns, necessitates a forward-looking approach. As international regulations such as MARPOL amendments and the Ballast Water Management Convention come into force, Nigeria's maritime sector must strengthen its compliance framework to ensure seamless integration into the global maritime system.

Equally critical is addressing the key domestic factors shaping Nigeria's maritime outlook. These include infrastructure modernization, transparent policy reforms, and enhanced support for indigenous stakeholders, such as shipowners and port operators. Ensuring robust enforcement of safety standards and facilitating access to financing, particularly through instruments like the Cabotage Vessel Financing Fund (CVFF), will bolster the sector's capacity to adapt to international developments. By prioritizing these areas, Nigeria can mitigate the risks of regional disparities and maximize its potential as a strategic maritime hub in West Africa.

To achieve this, Nigeria must also invest in fostering resilience and innovation within the industry. Embracing digitalization, promoting green shipping technologies, and addressing systemic challenges like oil theft and inland waterway safety are essential. By adopting a holistic strategy that balances global adaptation with domestic priorities, Nigeria can not only maintain its relevance in the global maritime landscape but also position itself as a leader in sustainable and technologically advanced maritime practices.

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