

**NAVIGATING THE INTERNATIONAL
MARITIME ORGANISATION'S (IMO)
NET-ZERO DRAFT REGULATIONS:
IMPLICATIONS FOR NIGERIA'S
MARITIME INDUSTRY**

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1. Introduction

The global shipping industry, which is responsible for over 3% of global greenhouse gas emissions, has come under increasing environmental and regulatory scrutiny in the wake of intensifying efforts to combat climate change. Shipping, being the cornerstone of international trade and accounting for over 80% (by volume) of the world's goods, plays a vital role in the global economy, thereby making its decarbonization a crucial concern for both industry stakeholders and policymakers alike.¹ Due to their 1,076 million tonnes (Mt) of anthropogenic greenhouse gas emissions (in carbon dioxide equivalent [CO₂e]) in 2018, ships are responsible for 3% of global anthropogenic GHG emissions.² Without stringent strategies and policies, CO₂ emissions from the shipping industry are projected to rise to 130% of 2008 levels, and could constitute 17% of global CO₂ emissions by 2050 due to increased freight demand and decarbonisation efforts in other sectors.³

In response to this growing concern in maritime operations, the International Maritime Organization (IMO) has taken a significant step by approving a set of draft regulations aimed at steering the shipping industry toward net-zero emissions by or around 2050. These draft regulations form a key part of the IMO's revised Strategy on the Reduction of GHG Emissions from Ships, adopted in 2023, and reflect the growing consensus on the urgent need for climate action across all sectors. At the 83rd session of the Marine Environment Protection Committee (MEPC 83) held at the IMO headquarters in London, between April 7 –11, 2025, the IMO member states agreed to implement a groundbreaking global pricing mechanism for greenhouse gas (GHG) emissions, marking a pivotal step

¹ UNCTAD. (2020). *Review of maritime transport 2020*. Retrieved from <https://unctad.org/webflyer/review-maritime-transport-2020> <accessed on April 2025>

² Faber, J., Hanayama, S., Zhang, S., Pereda, P., Comer, B., Hauerhof, E., et al. (2020). Fourth IMO GHG study 2020

³ Cames, M., Graichen, J., Siemons, A., & Cook, V. (2015). Emission reduction targets for international aviation and shipping

toward decarbonising maritime transport.⁴ A global fuel standard that gradually reduces the annual greenhouse gas fuel intensity of marine fuel and a greenhouse gas pricing mechanism that makes high-emitting ships pay for their excess pollution are the two strategies introduced by the IMO framework.

Ships that exceed emissions limitations are required to purchase remedial units under the new system in order to make up for their excess pollution. Meanwhile, there will be financial incentives for ships that operate with zero or almost zero emissions, generating a market-driven movement toward cleaner maritime transportation. Aligning with this global framework presents both significant challenges and enormous opportunities for the maritime sector for nations such as Nigeria, which is a major participant in Africa's maritime economy. This article examines the key features of the IMO draft Net-Zero regulations, examining their implications for various stakeholders in the maritime value chain, as well as the opportunities and associated challenges with the maritime industry's transition to a more sustainable future.

2. Nigeria's Commitment to Maritime Environmental Standards

Nigeria is actively demonstrating a renewed commitment to improved maritime environmental standards through international treaty participation and the implementation of national regulations. This includes actively acceding to and implementing IMO conventions, and enacting national legislation to prevent pollution from ships.

The Federal Government has, over the years, ratified several key International Maritime Organization (IMO) conventions, including the Hong Kong International Convention for the Safe and Environmentally

⁴ <https://bunkermarket.com/imo-approves-landmark-net-zero-framework-for-global-shipping-industry/> <accessed June 2025?

Sound Recycling of Ships (2009).⁵ The International Convention on Standards of Training, Certification, and Watchkeeping for Fishing Vessel Personnel (STCW-F) (1995), the International Convention for the Prevention of Pollution from Ships (MARPOL), formalized its commitment through the International Convention for the Prevention of Pollution from Ships 1973 and 1978 Protocol (Ratification and Enforcement) Act 2007 and protocols related to oil pollution and passenger safety.

Nigeria's commitment to reducing carbon emissions is evident through initiatives like the Nigerian Maritime Administration and Safety Agency's (NIMASA) marine notice to ship owners and Maritime Stakeholders⁶. NIMASA enforces regulations under the NIMASA Act, which prohibits the discharge of harmful substances into Nigerian waters and mandates the removal of wrecks that pose navigation risks. Furthermore, NIMASA has adopted IMO guidelines to address biofouling, a significant environmental concern in maritime operations. This initiative aims to prevent the spread of invasive species and protect marine biodiversity. Section 336 of the Merchant Shipping Act 2007 (MSA) empowers the Minister⁷ to regulate ship-related pollution and align with the United Nations Convention on the Law of the Sea 1982 (UNCLOS) for marine environmental protection. Through these efforts, Nigeria is gradually aligning its maritime practices with global environmental standards, contributing to the sustainable development of its maritime sector, thereby positioning Nigeria to adopt and enforce the IMO's forthcoming carbon pricing measures effectively.

3. The Imo Net-Zero Framework

The IMO Net-Zero Framework, approved at the Marine Environmental Protection Committee (MEPC 83), is the world's first industry-wide

⁵ Nigerian Maritime Administration and Safety Agency available at [FG APPROVES RATIFICATION OF SIX MARITIME CONVENTIONS AND PROTOCOLS | NIMASA](#) <accessed April 2025>

⁶ Nigerian Maritime Administration and Safety Agency "Marine Notice MN 09/21/SN02" (NIMASA 2021) available at <https://nimasa.gov.ng/wp-content/uploads/2021/09/MARINE-NOTICE-MN---MN-0921SN02.pdf> accessed April 2025

⁷ Section 444 of the MSA - Minister charged with the responsibility for matters relating to merchant shipping

initiative combining mandatory emissions limits with a GHG pricing mechanism. Set for formal adoption in October 2025 and enforcement from January 2027, it targets large ocean-going ships (of over 5,000 gross tonnage), which account for 85% of international shipping's CO₂ emissions.⁸ The framework aims for net-zero emissions by or around 2050, integrating a new fuel standard and a carbon pricing mechanism into Chapter 5 of MARPOL Annex VI.

4. Key Components of The Imo Net Zero Framework

a. Greenhouse Gas Fuel Intensity (GFI):

- **Global fuel standard:** Ships must reduce, over time, their annual greenhouse gas fuel intensity (GFI) – that is, how much GHG is emitted for each unit of energy used. This is calculated using a well-to-wake approach.
- **Global economic measure:** Ships emitting above GFI thresholds will have to acquire remedial units to balance their deficit emissions, while those using zero or near-zero GHG technologies will be eligible for financial rewards.

b. Carbon Pricing Mechanism (Effective 2027):

- Ships exceeding GFI thresholds pay a base fee of \$100 per ton of CO₂, with penalties up to \$380 per ton for high-intensity emissions.
- Projected to generate up to \$13 billion annually.

c. IMO Net-Zero Fund:

The collected fees will support:

- Rewards for low-emission ships.
- Innovation and infrastructure in developing nations.

⁸ International Maritime Organisation, Draft regulations will set mandatory marine fuel standard and GHG emissions pricing for shipping to address climate change, available at < [IMO approves net-zero regulations for global shipping](#) > accessed April 2025.

- Training, technology transfer, and capacity building.
- Support for Small Island Developing States and Least Developed Countries.

d. **Compliance Flexibility:**

High-emitting ships can avoid penalties by:

- Purchasing remedial units through the IMO Net-Zero Fund.
- Using banked surplus units from prior compliance.
- Transferring surplus units from lower-emitting vessels within a fleet, enabling strategic fleet-wide compliance.

e. **Global Fuel Standard:**

- Phases in cleaner fuels (e.g., Marine Gas Oil, LNG, methanol, ammonia, hydrogen, biofuels) to replace high-carbon alternatives.⁹

5. **Implications of The Imo Net-Zero Draft Regulations for Nigeria's Maritime Sector**

The IMO Net-Zero Draft Regulations, which is aimed at achieving decarbonization of the world shipping industry by 2050, present both potential opportunities and challenges for the Nigerian maritime sector. The impact of these regulations on Nigeria's shipping industry is expected to be significant, especially given the country's strategic prime geographical advantage as a major maritime hub in Africa, attributable to its vast coastline and significant involvement in international trade, thereby strategically placing it at the forefront of global shipping routes.

⁹ Maritime Decarbonisation and understanding Maritime Law Enforcement: available at: [A Landmark Decision in Maritime Decarbonization and understanding law enforcement](#); <accessed at April 2025>

Economic Impacts

- **Increased Costs:** Higher fuel costs from the carbon tax may elevate prices for imported goods, potentially affecting Nigeria's cost of living and food security.
- **Revenue Potential:** Access to the IMO Net-Zero Fund could finance port upgrades, renewable energy projects, and cleaner fuel adoption, fostering economic resilience.
- **Trade Competitiveness:** Non-compliance risks marginalizing Nigerian ports and shipping firms as global trade prioritizes low-emission operators.

Environmental Benefits

- **Climate Alignment:** The IMO framework supports Nigeria's 2021 Climate Change Act, which targets net-zero emissions by 2060, and its Nationally Determined Contribution (NDC)¹⁰ to cut emissions by 20% (or 45% with international support) by 2030.
- **Marine and Public Health:** Reduced GHG emissions will curb ocean warming and acidification, thereby protecting Nigeria's coastal ecosystems and fisheries, particularly in the Niger Delta.
- **Environmental Protection and Biodiversity:** The regulations could contribute to the preservation of Nigeria's marine environment, reducing air pollution and limiting the negative impacts of shipping on biodiversity, particularly in sensitive coastal ecosystems. Nigeria's marine resources could benefit from cleaner, more sustainable shipping practices, enhancing the protection of its waters from pollution.

¹⁰ The NDC outlines Nigeria's voluntary pledges to reduce greenhouse gas (GHG) emissions and adapt to climate change impacts, reflecting its contributions to the global goal of limiting temperature rise to well below 2°C, ideally to 1.5°C, above pre-industrial levels.

Challenges

- **Increased Compliance and Regulatory Oversight:** The Nigerian Maritime Administration and Safety Agency (NIMASA), as the primary regulator of Nigeria's maritime sector, will play a crucial role in ensuring compliance with the IMO's environmental regulations. This may necessitate the introduction of stricter national laws and regulations on pollution control, fuel efficiency, and emissions, as well as enhanced compliance and reporting systems to ensure that Nigeria meets the increased international scrutiny that may follow with the adoption of the Net-Zero Regulation for global shipping trade.

Proposed Solutions: A Strategic Pathway for Nigeria's Maritime Sector

To effectively mitigate the potential impacts of the IMO Net-Zero Draft Regulations, Nigeria must adopt a proactive, multi-pronged strategy and approach that leverages both targeted domestic policy initiatives and international support mechanisms. The following strategies offer a pragmatic roadmap:

- **Leveraging IMO Net-Zero Fund Revenues:** Access to the proposed \$13 billion annual fund¹¹ which is earmarked to support developing countries in meeting decarbonization goals, should be prioritized and actively pursued by Nigeria in order to support the modernization of critical port infrastructures, particularly its high traffic ports such as Lagos and Port Harcourt, including the Lekki Deep seaport, support its capacity building programs on green fuel technologies, safety and operations.. Additionally, the redistribution of 20-50% of these funds for broader socio-economic adaptation initiatives, such as climate resilient agriculture to cushion potential

¹¹ The \$13 Billion Annual Fund is the projected fee to be generated from ships exceeding Greenhouse Fuel Intensity (GFI) Standard, which will accordingly be used to fund rewards for low-emission ships.

domestic effects such as food price volatility caused by shifts in global freight costs, should also be encouraged and implemented..¹²

- **Fleet Modernisation and Fuel Transition:** In order to maintain competitiveness and reduce long-term compliance costs, Nigeria must incentivize the adoption of low-and zero-emission fuels, such as biofuels, ammonia and green hydrogen. Key policy actions that could be considered for adoption in this regard include: offering tax incentives or subsidies for retrofitting and upgrading vessels, negotiating exemptions or grace periods for high-volume African trade routes to buffer against potential sudden freight cost increase and establishing NIMASA-led regulatory frameworks to encourage early compliance. Exemptions for high-volume African routes could limit initial freight hikes, while investing in green hydrogen production could create export opportunities and jobs.
- **Facilitation of Trade Diversification and Regional Integration:** The reduction of over dependence on long-distance global trade routes will be essential under a carbon-priced regime, as such, Nigeria could mitigate its exposure to international shipping cost fluctuations by deepening regional trade under the African Continental Free Trade Area (AfCFTA) which offers a pathway to shorter, intra-African shipping routes with lower carbon intensity and by implementing digital tracking solutions for emissions monitoring and reporting to streamline compliance with IMO requirements and reduce administrative burdens on shippers.

¹² Navigating climate action: Assessing the economic impacts and trade-offs of a shipping carbon tax for African states <available at> <https://afripoli.org/navigating-climate-action-assessing-the-economic-impacts-and-trade-offs-of-a-shipping-carbon-tax-for-african-states> <Accessed at August 2025>

6. Conclusion

The IMO's Net-Zero Framework and carbon emission tax mark a pivotal and transformative shift in global shipping, with significant implications for Nigeria. Although the transition to greener shipping will require significant investment and structural adaptation, it also offers a strategic opportunity for Nigeria to lead Africa's green maritime transition. By embracing and aligning with these regulations, Nigeria can strengthen its maritime potential, promote environmental sustainability and drive economic diversification in the region.



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