

The Blue Economy in the Indian Ocean Region: Addressing the Contemporary Legal Challenge of Marine Environmental Governance

By

Dr Bhavna Mahadew

**Law Lecturer, University of Technology, Mauritius & IORAG ECPN Steering Committee
Member: Internal Stakeholders**

1ST JUNE 2026

The Blue Economy has become one of the most important pillars of regional cooperation within the Indian Ocean Rim Association (IORA). Introduced in 2014 as a cross-cutting priority area, the Blue Economy seeks to promote sustainable economic growth while ensuring the protection and responsible use of marine and coastal resources. The Indian Ocean is one of the world's most strategically important maritime regions, supporting global trade routes, fisheries, tourism, energy transport, and biodiversity. However, increasing environmental degradation, overexploitation of marine resources, and climate-related pressures have intensified the need for stronger legal and institutional frameworks governing ocean sustainability. Consequently, one of the most significant contemporary legal issues connected to the Blue Economy today is the challenge of marine environmental governance and the effective implementation of international maritime and environmental law.

The IORA Action Plan 2022–2027 provides the strategic framework for advancing cooperation in areas such as fisheries and aquaculture, seaports and shipping, renewable ocean energy, marine biotechnology, tourism, offshore hydrocarbons, and seabed minerals. The Working Group on Blue Economy, chaired by Indonesia with India serving as Coordinating Country, has facilitated various capacity-building activities aimed at strengthening sustainable ocean governance throughout the region. Yet, as economic activities in the Indian Ocean expand, legal disputes and governance challenges relating to marine environmental protection are becoming increasingly complex.

One of the most pressing legal concerns relates to balancing economic exploitation with environmental sustainability. The Blue Economy concept is founded upon the principle that ocean-based economic growth must occur in a manner that preserves marine ecosystems for future generations. However, the intensification of commercial fishing, offshore drilling, deep-sea mining, maritime transport, and coastal tourism has significantly increased pressure on marine biodiversity and fragile ecosystems. Illegal, unreported, and unregulated (IUU) fishing, marine pollution, coral reef destruction, and habitat degradation continue to threaten the ecological sustainability of the Indian Ocean.

These challenges raise important questions concerning the adequacy and enforcement of existing international legal frameworks, particularly the United Nations Convention on the Law of the Sea (UNCLOS). UNCLOS establishes the legal framework governing maritime zones, marine resource utilisation, environmental obligations, and navigational rights. Nevertheless, many developing states within the Indian Ocean region face significant limitations in implementing and enforcing their obligations under international maritime law. Weak institutional capacity, limited maritime surveillance, insufficient scientific resources, and fragmented regulatory systems often hinder effective marine governance.

A contemporary legal issue of growing importance is the regulation of deep-sea mining and offshore resource extraction. Technological advancements have increased interest in exploiting seabed minerals and offshore hydrocarbons within the Indian Ocean. While such activities may generate economic benefits and contribute to energy security, they also pose serious environmental

risks, including damage to marine ecosystems, biodiversity loss, and pollution. Existing international legal regimes governing seabed mining remain underdeveloped in several respects, particularly regarding environmental liability, ecological impact assessments, and the equitable sharing of marine resources.

The principle of sustainable development has therefore become central to Blue Economy governance. States increasingly face legal obligations to ensure that economic activities within their Exclusive Economic Zones (EEZs) comply with environmental protection standards and precautionary principles. In this context, regional cooperation through IORA is essential for harmonising legal approaches, promoting shared standards, and strengthening institutional capacity across member states.

Another significant contemporary legal issue concerns marine pollution, especially plastic pollution and shipping-related environmental harm. The Indian Ocean has witnessed increasing levels of marine debris and pollution arising from industrial activities, shipping operations, and inadequate waste management systems. Maritime transport remains vital for global commerce, yet oil spills, ballast water discharge, and hazardous waste dumping continue to threaten marine ecosystems and coastal communities. International legal instruments such as the International Convention for the Prevention of Pollution from Ships (MARPOL) establish regulatory standards, but enforcement challenges remain considerable in many developing coastal states.

The legal implications of climate change also intersect directly with the Blue Economy agenda. Rising sea levels, coastal erosion, coral bleaching, and extreme weather events increasingly threaten the livelihoods and territorial integrity of several Indian Ocean states, particularly Small Island Developing States (SIDS) such as Mauritius, Maldives, and Seychelles. Climate-related maritime challenges raise complex legal questions regarding maritime boundaries, fisheries rights, environmental displacement, and state sovereignty. For example, rising sea levels may affect the baselines from which maritime zones are measured under international law, potentially creating future disputes concerning territorial waters and Exclusive Economic Zones.

Furthermore, disputes relating to marine resource allocation and maritime jurisdiction continue to affect regional stability. Competing claims over fisheries resources, offshore hydrocarbons, and maritime boundaries can generate tensions between neighbouring states. Effective legal dispute resolution mechanisms and cooperative governance structures are therefore essential for maintaining regional peace and sustainable development. IORA's emphasis on dialogue, capacity-building, and regional cooperation contributes positively towards promoting peaceful and rules-based ocean governance.

The Blue Economy also raises questions concerning social justice and equitable development. Coastal communities and small-scale fishers often depend directly on marine resources for their livelihoods. However, large-scale commercial exploitation can marginalise local populations and intensify economic inequalities. Contemporary legal frameworks must therefore address issues relating to environmental justice, community participation, and equitable access to marine resources. Sustainable Blue Economy governance requires integrating human rights principles into ocean management policies and ensuring that economic development benefits local populations rather than only multinational corporations or state elites.

Importantly, scientific research and marine technology cooperation are becoming increasingly necessary for effective legal governance. Marine environmental protection depends heavily upon scientific data collection, ocean monitoring systems, and environmental impact assessments. Through the IORA Working Group on Blue Economy, member states can strengthen legal and institutional frameworks by promoting research cooperation, knowledge-sharing, and technological capacity-building.

In conclusion, the Blue Economy priority area within IORA is closely connected to some of the most pressing contemporary legal challenges affecting the Indian Ocean region. Marine environmental governance, sustainable resource management, maritime pollution, climate change, and offshore resource exploitation all require strong legal frameworks and effective regional cooperation. While the Blue Economy offers significant opportunities for economic growth and regional development, its long-term success depends upon balancing economic interests with environmental sustainability and social equity. Through the IORA Action Plan 2022–2027 and the work of the Working Group on Blue Economy, regional cooperation can play a crucial role in strengthening legal governance, enhancing institutional capacity, and promoting sustainable and rules-based management of the Indian Ocean's vast marine resources.