



Blue economy and geopolitics: conflicting interests in resource utilization in the Indian Ocean

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Manuscript details:

Available online on <http://www.ijlsci.in>

ISSN: 2320-964X (Online)

ISSN: 2320-7817 (Print)

Cite this article as:

Verma Jitendra Kumar and Meena Mahendra Kumar (2025) Blue economy and geopolitics: conflicting interests in resource utilization in the Indian Ocean, *Int. J. of. Life Sciences*, Special Issue, A21, 109-114.

Article published in Special Issue of "International Conference on Futuristic Approach for Viksit Bharat (ICFAVB-2047) Organized by Government College, Dholpur (Raj.) Dated 23 and 24 Dec. 2024.



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ABSTRACT

The Indian Ocean Region (IOR) has emerged as a strategic and economically vital maritime space, offering significant opportunities for sustainable development through the Blue Economy. This concept envisions the responsible utilization of ocean resources to support economic growth, environmental protection, and social equity. However, the practical implementation of Blue Economy principles in the IOR is increasingly constrained by intensifying geopolitical rivalries, particularly between India and China. National initiatives such as India's SAGAR policy and China's Maritime Silk Road reflect broader strategic ambitions that often conflict with regional sustainability goals. This paper critically examines the intersection of geopolitics and the Blue Economy in the IOR, highlighting how competing interests undermine cooperative frameworks and lead to environmental degradation, infrastructure-driven debt burdens, and inequitable access to marine resources. It also explores the institutional limitations of regional bodies such as the Indian Ocean Rim Association (IORA), which lack the authority and cohesion to enforce sustainable governance. Through qualitative analysis of academic literature, policy documents, and case studies, this research reveals the structural and political challenges hindering equitable resource utilization. Smaller and less-developed states, in particular, face marginalization due to limited institutional capacity and strategic dependence on larger powers. The study concludes that realizing the full potential of the Blue Economy in the Indian Ocean requires a shift toward inclusive, multilateral governance rooted in environmental stewardship and regional cooperation. Strengthening institutional mechanisms, promoting transparency, and supporting capacity-building efforts are essential for fostering a balanced, sustainable, and geopolitically stable maritime future.

Keywords: Blue Economy, Indian Ocean, Geopolitics, Sustainability, Resource Utilization, IORA

INTRODUCTION

The Indian Ocean, covering over 70 million square kilometres, is a critical geopolitical and economic zone. It supports major sea lanes

through chokepoints like the Strait of Hormuz and Malacca, carrying nearly half of global maritime trade and a significant portion of energy supplies (Council on Foreign Relations [CFR], n.d.). Simultaneously, the region's abundant marine resources support millions of livelihoods, particularly in coastal and island states, making the ocean central to Blue Economy initiatives.

The Blue Economy emphasizes sustainable use of ocean resources for economic growth, employment, and environmental health (Roy, 2019). However, these goals increasingly clash with the geopolitical strategies of regional and global powers. China's Maritime Silk Road (part of its Belt and Road Initiative) has led to major infrastructure investments in countries like Sri Lanka and Pakistan, raising concerns about economic dependence and strategic encirclement (Singh, 2023). In response, India has promoted its SAGAR initiative and strengthened maritime cooperation through the Quad alliance (Observer Research Foundation [ORF], 2021).

Illegal, unreported, and unregulated (IUU) fishing, particularly by distant-water fleets, further complicates sustainable resource use. Many Indian Ocean nations lack the surveillance capabilities to monitor their Exclusive Economic Zones, making them vulnerable to IUU practices, which undermine both livelihoods and marine ecosystems (Roy, 2019).

Governance in the Indian Ocean remains fragmented. While the Indian Ocean Rim Association (IORA) and international frameworks like UNCLOS offer some regulatory guidance, disparities in national capacities and strategic rivalries often limit cohesive action (Roy, 2019). Moreover, deep-sea mining under the International Seabed Authority (ISA) raises concerns about environmental damage and equitable benefit-sharing (Wikipedia, 2025).

In summary, while the Blue Economy offers significant promise, its implementation in the Indian Ocean is hindered by competing geopolitical interests, unsustainable practices, and weak governance. Balancing economic growth, environmental sustainability, and strategic stability remains a central challenge.

RESEARCH METHODOLOGY

Study area

The study focuses on the Indian Ocean Region (IOR), a vast maritime expanse that encompasses more than 70 million square kilometres, bounded by Eastern Africa, the Middle East, South and Southeast Asia, and the western coasts of Australia. It is the world's third-largest ocean and home to 38 littoral and adjacent states, including strategically significant countries such as India, China (as an external actor), Sri Lanka, the Maldives, Indonesia, Seychelles, and coastal nations of Eastern Africa.

This region plays a pivotal role in global trade and energy flows, with some of the busiest sea lanes and chokepoints such as the Strait of Hormuz, the Bab el-Mandeb, and the Strait of Malacca. Nearly 80% of the world's maritime oil trade passes through the Indian Ocean, making it a critical artery for international commerce and energy security.

The Indian Ocean is also endowed with abundant marine resources, including fisheries, hydrocarbons, and seabed minerals. These resources form the backbone of the Blue Economy for many coastal and island nations. However, the region faces increasing pressure from overexploitation, habitat degradation, and geopolitical competition, particularly due to major strategic investments by India and China in ports, maritime infrastructure, and naval presence.

This study specifically examines how geopolitical rivalries and asymmetries in economic and governance capacities affect the sustainable and equitable utilization of marine resources across key sub-regions of the IOR, including the South Asian coastlines, East African maritime zones, and island nations such as Seychelles, Mauritius, and the Maldives. These areas are not only biodiversity hotspots but also frontline zones of geopolitical contestation and development initiatives under the Blue Economy framework.

By focusing on these strategically and economically vital zones, the study seeks to assess the impact of competing national interests on regional cooperation, environmental governance, and inclusive economic growth in the Indian Ocean.

Research Design

This study adopts a qualitative, exploratory research design to examine the intersection of Blue Economy initiatives and geopolitical dynamics in the Indian Ocean. Given the complexity and multifaceted nature of maritime governance, regional competition, and resource utilization, a qualitative approach enables in-depth exploration of state behaviour, policy frameworks, and strategic narratives. The study aims to uncover patterns, relationships, and conflicts among regional and global actors operating within the Indian Ocean space.

Data Collection Methods

The research is based on secondary data collected from a wide range of scholarly and policy-oriented sources, including:

Peer-reviewed journal articles on maritime security, international relations, and ocean governance.

Official documents, policy briefs, and strategy papers from organizations such as the Indian Ocean Rim Association (IORA), International Seabed Authority (ISA), and national governments (e.g., India's SAGAR doctrine, China's Maritime Silk Road).

Reports and working papers from think tanks and research institutes such as the Observer Research Foundation (ORF), Council on Foreign Relations (CFR), and India Foundation.

International legal frameworks, including the United Nations Convention on the Law of the Sea (UNCLOS).

News archives and investigative reports for recent developments related to IUU fishing, port investments, and naval deployments.

RESULT

The Indian Ocean's Strategic Significance and Resource Potential

The Indian Ocean is a vital conduit for global trade, with approximately 46% of international commerce transiting through its sea lanes, including critical chokepoints like the Strait of Hormuz and the Strait of Malacca. These maritime routes are essential for the energy security and economic stability of numerous nations.

Beyond its strategic maritime importance, the Indian Ocean harbours abundant natural resources. Notably, it accounts for 40% of global offshore oil production. Additionally, the region is rich in marine biodiversity, supporting fisheries that are crucial for the livelihoods of coastal communities. The potential for deep-sea mining of minerals and rare earth elements further underscores the ocean's economic significance.

Blue Economy Initiatives: Opportunities and Challenges

The concept of the Blue Economy emphasizes sustainable use of ocean resources for economic growth, improved livelihoods, and ocean ecosystem health. In the Indian Ocean, several nations have embarked on initiatives to harness marine resources sustainably.

For instance, India has launched programs to explore the sustainable utilization of deep-sea mesopelagic resources within its Exclusive Economic Zone (EEZ). A collaborative study by the Central Marine Fisheries Research Institute (CMFRI) and the Central Institute of Fisheries Technology (CIFT) aims to assess the viability of harvesting mesopelagic species for industrial applications, thereby reducing pressure on overexploited traditional fish stocks. Similarly, the Seychelles pioneered the issuance of a sovereign Blue Bond in 2018, raising \$15 million to finance ocean conservation and sustainable development projects. The proceeds have been utilized to expand marine protected areas, improve fisheries management, and promote sustainable tourism.

Despite these initiatives, challenges persist. The lack of cohesive governance frameworks, limited financial resources, and varying national capacities hinder the effective implementation of Blue Economy strategies across the region.

Geopolitical Dynamics and Strategic Competition

The Indian Ocean has become a theater of strategic competition among regional and extra-regional powers. China's Belt and Road Initiative (BRI), particularly its Maritime Silk Road component, has led to significant investments in port infrastructure across the IOR, including in Sri Lanka, Pakistan, and Djibouti. While these projects are presented as economic development efforts,

they are often perceived as instruments of geopolitical influence and maritime power projection.

India, viewing China's expanding presence with concern, has sought to assert its own vision of maritime regionalism through initiatives like SAGAR (Security and Growth for All in the Region) and by strengthening ties with partners in the Quadrilateral Security Dialogue (QUAD), comprising the United States, Japan, and Australia.

This strategic rivalry has implications for the Blue Economy. Infrastructure projects driven by geopolitical interests may not align with sustainable development goals, leading to environmental degradation and social discontent. Moreover, the militarization of maritime spaces can deter collaborative efforts essential for sustainable resource management.

Illegal, Unreported, and Unregulated (IUU) Fishing: A Persistent Threat

IUU fishing poses a significant threat to marine ecosystems and the livelihoods of coastal communities in the Indian Ocean. Many littoral states lack the capacity to monitor and enforce regulations within their EEZs, making them vulnerable to illegal fishing activities.

Chinese distant-water fishing fleets have been implicated in IUU fishing across the region, exacerbating tensions and undermining regional efforts toward sustainable fisheries management. The lack of effective monitoring, control, and surveillance systems further complicates enforcement efforts.

Addressing IUU fishing requires enhanced regional cooperation, capacity-building, and the implementation of robust monitoring mechanisms. Initiatives like the Extended Regional Coordination Unit (ERCU) of the Regional Fisheries Surveillance Plan, involving eight countries in the South-West Indian Ocean, exemplify collaborative approaches to tackle this issue.

Governance Frameworks: Fragmentation and the Need for Cohesion

The governance of marine resources in the Indian Ocean is characterized by fragmentation and overlapping jurisdictions. While international frameworks like the

United Nations Convention on the Law of the Sea (UNCLOS) provide a legal basis for ocean governance, their implementation varies across states.

Regional organizations such as the Indian Ocean Rim Association (IORA) aim to promote cooperation among member states. However, geopolitical rivalries, notably between India and China, have impeded the strengthening of such institutions. For instance, India's exclusion of Pakistan from IORA membership reflects broader regional tensions that hinder cohesive governance.

To achieve sustainable Blue Economy objectives, there is a pressing need for integrated governance frameworks that transcend national interests and foster collaborative management of marine resources.

Environmental Concerns and Climate Change Impacts

Climate change poses significant risks to the Indian Ocean's marine ecosystems. Rising sea temperatures, ocean acidification, and sea-level rise threaten biodiversity and the livelihoods of coastal populations. Moreover, the pursuit of economic activities such as deep-sea mining and offshore oil extraction raises environmental concerns. The potential for habitat destruction, pollution, and disruption of marine life necessitates stringent environmental assessments and regulatory oversight.

Balancing economic development with environmental sustainability is crucial. Incorporating climate resilience into Blue Economy strategies can help mitigate adverse impacts and ensure the long-term viability of marine resources.

Recommendations for Sustainable Resource Utilization

To reconcile the objectives of the Blue Economy with geopolitical realities, the following recommendations are proposed:

Strengthen Regional Cooperation: Enhance collaboration among IOR states through platforms like IORA to develop cohesive policies and share best practices.

Capacity Building: Invest in building the technical and institutional capacities of littoral states to monitor and manage marine resources effectively.

Implement Robust Monitoring Systems: Deploy advanced technologies for real-time monitoring of fishing activities to combat IUU fishing.

Environmental Safeguards: Establish stringent environmental regulations for activities like deep-sea mining and offshore drilling to prevent ecological degradation.

Inclusive Governance: Foster inclusive governance frameworks that involve all stakeholders, including local communities, in decision-making processes.

The Indian Ocean's vast marine resources offer immense potential for economic development through the Blue Economy. However, the realization of this potential is contingent upon navigating complex geopolitical dynamics, addressing environmental challenges, and fostering regional cooperation. By adopting integrated and sustainable approaches to resource utilization, the IOR can achieve economic growth while preserving its marine ecosystems for future generations.

DISCUSSION

The Indian Ocean Region (IOR) presents vast opportunities for economic development through the Blue Economy. However, these opportunities are increasingly entangled with geopolitical rivalries, especially between major powers like India and China. While Blue Economy strategies aim for sustainability, equity, and inclusivity, they are often overshadowed by strategic competition and unilateral economic interests.

China's port development under the Belt and Road Initiative (BRI) and India's SAGAR strategy reflect growing militarization and infrastructure rivalry. These projects, though framed as development-oriented, often prioritize national security and influence over ecological and regional cooperation goals (Singh, 2023; ORF, 2021).

The region's governance framework remains weak and fragmented. Institutions like the Indian Ocean Rim Association (IORA) lack the authority and cohesion to enforce sustainable marine policies. This lack of coordinated governance impedes collective action on urgent challenges such as illegal, unreported, and

unregulated (IUU) fishing, pollution, and habitat loss (Roy, 2019).

Environmental risks from offshore drilling, deep-sea mining, and overfishing threaten marine ecosystems. While some nations, like Seychelles, have initiated innovative financing tools such as Blue Bonds, many IOR countries lack the capacity to implement robust environmental safeguards (Wikipedia, 2025).

Inequality in technical and financial capacity among coastal and island nations leads to unequal access and benefit-sharing of marine resources. This asymmetry enables larger states and foreign actors to dominate resource use, marginalizing local communities.

Non-state actors such as NGOs and research institutions play important roles in marine conservation, data gathering, and policy advocacy. However, they often remain peripheral to high-level decision-making.

To align the Blue Economy with sustainable development goals, regional states must shift from competition to cooperation. Strengthening IORA's institutional role, adopting environmental standards, investing in shared research, and building capacity among smaller nations are key steps. A collective approach that balances strategic interests with ecological integrity and community welfare is essential for a sustainable and secure Indian Ocean.

CONCLUSION

The Indian Ocean is emerging as a focal point for economic, strategic, and environmental interests. The concept of the Blue Economy offers a transformative vision for sustainable development, aiming to harness the region's rich marine resources while protecting ecological systems and promoting inclusive growth. However, this vision is increasingly challenged by geopolitical rivalries, fragmented governance, environmental degradation, and uneven capacities among littoral states.

This research highlights that while countries like India and China are advancing major initiatives such as SAGAR and the Maritime Silk Road they often do so through competitive and unilateral frameworks that prioritize national interests. These developments risk undermining

regional trust, distorting economic priorities, and degrading marine ecosystems.

The study also reveals critical governance gaps. Institutions like the Indian Ocean Rim Association (IORA), while valuable for dialogue, lack the enforcement mechanisms and inclusive structures necessary to manage shared resources effectively. Without stronger cooperation and institutional reform, fragmented efforts will continue to fall short in addressing complex transboundary challenges such as illegal fishing, habitat destruction, and climate change.

Furthermore, the inequitable distribution of resources and capabilities across the region creates a power imbalance that favors larger states and foreign actors, sidelining smaller coastal and island nations. This threatens not only environmental sustainability but also social equity and regional stability.

Despite these challenges, the Indian Ocean holds great potential for cooperative progress. Innovative financial tools like Blue Bonds, multilateral environmental initiatives, and regional frameworks for sustainable fisheries management demonstrate that effective, inclusive governance is possible.

To realize the full potential of the Blue Economy, the Indian Ocean Region must prioritize collaborative governance, environmental stewardship, and inclusive economic participation. Only through sustained cooperation, capacity building, and a shared commitment to ecological and social sustainability can the region transform its marine wealth into a foundation for lasting peace and prosperity.

Conflict of Interest: None of the authors have any conflicts of interest to disclose. All the authors approved the final version of the manuscript.

Data Availability Statement: Not applicable.

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