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# BLUE ECONOMY GOVERNANCE: THREAT LANDSCAPES IN COASTAL ECOSYSTEMS AND IMPLICATIONS FOR THE GLOBAL SOUTH

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**ABSTRACT:** The growing relevance of the marine and blue economy has intensified global concern over the governance of coastal ecosystems, particularly in the Global South, where ecological fragilities intersect with developmental pressures. This study interrogates how evolving threat landscapes, ranging from coastal degradation and illegal fishing to marine pollution, climate-induced risks, and persistent governance deficits, undermine the sustainability of blue economy initiatives and their implications for sustainable development. The analysis draws on 62 carefully selected materials, including national policy documents, international conventions, and peer-reviewed empirical studies, chosen through relevance-based inclusion criteria. Anchored on environmental governance theory and Political Ecology, the objectives of the study are to: (1) identify main ecological and security threats affecting coastal regions; (2) assess existing blue economy governance frameworks; and (3) determine their effectiveness in promoting sustainability. Findings reveal that weak regulatory institutions, fragmented governance, and over-extraction of marine resources undermine blue economy outcomes. This is exemplified by Ghana's marine fisheries sector, which continues to experience stock depletion due to illegal, unreported, and unregulated (IUU) fishing, despite existing regulatory instruments, reflecting a wider regional governance gap. The study concludes that realising a resilient and sustainable blue economy requires coherent and adaptive governance systems supported by strengthened institutional capacities. Accordingly, the study prioritises three strategic actions: (1) establishing integrated and enforceable multi-actor maritime governance mechanisms; (2) investing in climate-resilient coastal infrastructure and ecological restoration; and (3) promoting community-based resource management alongside enhanced South–South cooperation to improve knowledge sharing and regulatory innovation.

**Keywords**: Blue Economy, Marine Governance, Coastal Ecosystems, Threat Landscapes, Global South

## INTRODUCTION

The marine and blue economy has increasingly become a central pillar of global sustainable development, contributing to food security, trade, climate regulation, and coastal livelihoods, particularly within the Global South (OECD, 2020; World Bank, 2017). 2017). The marine and blue economy has increasingly become a central pillar of global sustainable development,

contributing to food security, trade, climate regulation, and coastal livelihoods, particularly within the Global South (OECD, 2020; World Bank, 2017). The question of how these resources are managed has become even more important for long-term sustainability as coastal states increase activities like fisheries, marine transportation, offshore energy, aquaculture, and coastal tourism. However, overfishing, illegal, unreported, and unregulated (IUU) fishing, climate-driven ocean changes, marine pollution, coastal erosion, biodiversity loss, and inadequate institutional capacity continue to put increasing strain on coastal ecosystems in many developing regions (FAO, 2022; UNEP, 2021).

The severity of these threats is evident. For example, in West Africa, Illegal, unreported, and unregulated (IUU) fishing remains one of the gravest threats to the sustainability of global fisheries. According to current estimates, between 11 and 26 million metric tons of fish are illegally removed each year, resulting in losses worth between $10 and $23 billion.

In specific fisheries, IUU catches may represent up to 20% of total global catch, and in some extreme cases reach as high as 50% (Ocean Panel, 2025). Because coastal communities in the Global South frequently lack the institutional capacity for efficient monitoring, control, and surveillance [MCS], this scale of illicit harvesting undermines sustainable resource management (FAO, 2025). This indicates how governance lapses translate directly into ecological and economic vulnerabilities. This indicates how governance lapses translate directly into ecological and economic vulnerabilities.

These vulnerabilities weaken ecosystems' ability to bounce back and make it harder for blue economy projects intended to support national development to work. The unique political and economic conditions of the Global South, characterized by institutional fragility, constrained scientific capacity, and structural dependency, exacerbate vulnerability to these threats (Bennett et al., 2019). Consequently, a substantive approach to blue economy governance must transcend ecological considerations to address the socio-political and institutional disparities that influence coastal management results.

Meanwhile, land-based pollution further compounds stress on coastal ecosystems. A 2023 global analysis estimated that rivers worldwide transport between 0.15 and 0.53 million metric tons of plastic waste into the ocean each year (Lebreton et al, 2023). A recent meta-analysis documenting the ubiquitous presence of microplastics in marine habitats worldwide recorded mean densities of $\approx 37{,}921 \pm 13{,}925$ microplastic particles per square metre, underscoring the pervasive and transboundary nature of plastic pollution (Cordova et al**.**, 2025). These data support growing concerns over the ecological and socio-economic consequences of unchecked marine exploitation and pollution, particularly in coastal states of the Global South where regulatory capacity and waste-management infrastructures remain weak.

**Statement of the Problem**

Although many countries in the Global South have formally adopted blue economy frameworks, coastal ecosystems continue to deteriorate at alarming rates. Governance remains fragmented, enforcement is weak, and regional cooperation is often superficial or inconsistent (Voyer et al.,

2018). Added to this are climate change impacts, such as sea-level rise, ocean warming, and acidification, which compound existing vulnerabilities (IPCC, 2021). While global institutions continue to advance optimistic blue growth narratives, many developing states still lack the institutional strength and governance coherence needed to reconcile economic expansion with ecological stewardship, thereby producing unsustainable practices and widening threat landscapes (Patil et al., 2016).

The main research gap this study addresses is the limited scholarly effort to systematically link the evolving coastal threat environment to the specific governance responses outlined in national and regional policy and institutional documents across the Global South. Existing studies tend to treat ecological vulnerabilities and governance challenges separately, leaving unresolved how governance frameworks actually interpret, prioritise, or respond to these emerging threats; against this backdrop, this study is guided by the following research questions:

1. How do existing governance documents frame and respond to the major ecological and security threats confronting coastal ecosystems?
2. What institutional strengths, weaknesses, and coordination gaps are reflected in these policy and regulatory documents?
3. To what extent do current governance provisions align with the evolving threat landscape across the Global South?

**Aim of the Study**

The primary aim of this study is to critically examine how existing blue economy governance frameworks in the Global South interpret and respond to the evolving ecological and security threats confronting coastal ecosystems, and to determine the extent to which these governance provisions align with the realities of the contemporary threat landscape.

**Objectives of the Study**

In line with the above aim, the study pursues the following specific objectives:

1. To identify and analyse the major ecological and security threats affecting coastal ecosystems within the Global South.
2. To examine how national and regional governance documents conceptualise, frame, and respond to these emerging threats.
3. To evaluate the institutional strengths, weaknesses, and coordination gaps inherent in existing blue economy governance frameworks.
4. To assess the degree of alignment between governance provisions and the actual coastal threat environment.
5. To propose strategic governance pathways capable of enhancing resilience and ensuring sustainable blue economy outcomes.

**Research Questions**

1. What are the major ecological and security threats affecting coastal ecosystems?
2. How effective are current blue economy governance structures?
3. In what ways do governance deficits intensify vulnerability within coastal ecosystems?
4. What are the institutional strengths, weaknesses, and coordination gaps inherent in existing blue economy governance frameworks
5. What strategies can enhance sustainable blue economy development?

**Significance of the Study**

This study is significant in so many ways. First, it provides an integrated analysis that connects coastal threat dynamics with the governance frameworks intended to manage them, which is a link often neglected in existing literature. By bringing ecological pressures, institutional capacities, and governance responses into a single analytical frame, the study offers a clearer understanding of why blue economy ambitions remain difficult to realise in many countries in the Global South.

Second, the findings will be of utmost importance to policymakers, regional organisations, and development partners seeking evidence-based strategies to strengthen coastal governance. Through its focus on governance documents and their actual interpretive framing of threats, the study provides insights that can support institutional reforms, enhance inter-agency coordination, and improve compliance mechanisms.

Finally, the study contributes to scholarly debates on environmental governance, political ecology, and marine policy by offering a synthesised perspective that situates blue economy challenges within broader structural and institutional milieus.

**Scope of the Study**

The study conceptually and thematically focuses on the governance of marine and coastal ecosystems within the Global South. It focuses on the interaction between emerging threats, including IUU fishing, climate-induced ocean changes, coastal degradation, and marine pollution, and the governance mechanisms designed to manage these pressures. Empirically, the analysis draws on national policy documents, regional conventions, and institutional frameworks related to blue economy governance. While the study draws examples from diverse coastal states to illustrate broader trends, its primary focus is on synthesising governance responses rather than conducting country-specific case studies.

## LITERATURE REVIEW

### Conceptual Clarifications

### The Marine and Blue Economy

The blue economy broadly refers to the sustainable use of ocean resources to promote economic growth, environmental health, and improved livelihoods (World Bank, 2017). It encompasses diverse sectors, including fisheries, maritime transport, offshore energy, biotechnology, coastal tourism, and ecosystem restoration. The European Commission (2021) frames it as an integrated system that links economic innovation with ecological stewardship. For much of the Global South, the blue economy is positioned as a pathway for structural transformation; yet these ambitions remain constrained by governance weaknesses, ecological decline, and limited technological capacity (Voyer et al., 2018).

### Coastal Ecosystem Threat Landscapes

Coastal ecosystems such as mangroves, estuaries, coral reefs, and seagrass beds face escalating global pressures. UNEP (2021) highlights climate-driven processes, such as sea-level rise, ocean acidification, and warming seas, alongside pollution, habitat loss, and overfishing, as primary stressors. These pressures are more pronounced in the Global South, where population growth, artisanal fishing intensity, illegal sand mining, dredging, and weak regulatory oversight intensify vulnerability (FAO, 2022).

### Theoretical Foundations

### Environmental Governance Theory

Environmental governance refers to the formal and informal rules, institutions, and networks shaping environmental outcomes (Lemos & Agrawal, 2006). In marine contexts, strong governance enhances transparency, enables stakeholder coordination, and supports adaptive management (Biermann et al., 2010). Weak or fragmented governance often correlates with ecological decline and unsustainable exploitation.

### Political Ecology

Political ecology explores how power relations, inequality, and economic structures shape environmental degradation (Robbins, 2012). Applied to the blue economy, it highlights distributive injustices, policy capture by political and commercial elites, and marginalisation of coastal communities (Bennett et al., 2019). This lens is essential for unpacking why Global South governments struggle to regulate sectors dominated by foreign industrial fleets, multinational energy firms, and global commodity chains.

## Competing Perspectives in Blue Economy Scholarship

### Blue Growth vs. Blue Justice

While "blue growth" prioritises economic expansion through marine resources, emerging scholarship criticises its tendency to reproduce inequalities and mask structural power imbalances. Scholars such as Cohen et al. (2019) and Barbesgaard (2018) argue that blue growth narratives often privilege foreign investments, large-scale fishing, offshore extraction, and tourism at the expense of local livelihoods. "Blue justice," conversely, emphasises fair distribution of marine benefits, community rights, and socio-ecological integrity. It challenges technocratic and market-driven approaches that marginalise artisanal fishers, women in fisheries, and indigenous coastal communities.

### Top-down International Frameworks vs. Local Co-management

International frameworks, including UNCLOS, the FAO Code of Conduct, and regional fisheries management organizations, promote uniform governance standards (FAO, 2022). However, critics argue that these frameworks are often top-down, poorly contextualised, and more accessible to states with high administrative and technological capacity (Elias & Da Costa, 2021). By contrast, local co-management approaches emphasise community participation, local ecological knowledge, and shared authority. Berkes (2018) and Das (2023) are of the view that co-management improves compliance, resource stewardship, and social legitimacy, but requires strong institutional backing, which is most often lacking in the Global South.

## Threat Dynamics in Coastal Ecosystems

Threat dynamics in coastal ecosystems include:

### Climate-Induced Threats

The IPCC (2021) confirms that sea-level rise, storm surges, ocean warming, and acidification are accelerating the decline of coastal ecosystems. Between 1985 and 2015, global mangrove loss averaged 0.13% annually, largely driven by climate and anthropogenic pressures (Hamilton & Casey, 2016). Coral bleaching events of 1998, 2010, and 2016 have significantly damaged reef ecosystems (Hoegh-Guldberg et al., 2018).

### Illegal, Unreported, and Unregulated (IUU) Fishing

As stated passively in the introduction, IUU fishing accounts for an estimated 11–26 million metric tons of global fish catch annually, valued at USD 10–23 billion per year (FAO, 2022). In African and Asian regions, weak enforcement, foreign distant-water fleets, and corruption intensify the problem (Okafor-Yarwood & Belhabib, 2020). Empirical studies show that West Africa loses up to USD 2.3 billion annually due to IUU fishing (Mai et al., 2023). Unfortunately, such a scale of illicit exploitation undermines sustainable fisheries management, jeopardizes food security and coastal livelihoods, and disproportionately impacts developing coastal states in the Global South,

where institutional and enforcement capacities are often limited (FAO, 2022). Again, this data supports the argument that governance gaps do not merely represent administrative failures; rather, they translate into large-scale resource losses, economic damages, and worrisome social insecurity.

**Marine Pollution**

Marine pollution caused by plastic waste influx, industrial waste, oil spills, and agricultural runoff continues to degrade coastal ecosystems. As briefly mentioned in the introduction, Land-based pollution remains one of the fastest-growing threats to coastal and marine ecosystems. Lebreton et al. (2023), in a recent global study of riverine plastic outflows, estimated that, across 161 countries, rivers contribute between 0.15 and 0.53 million metric tons (Mt) of plastic waste annually to the oceans. These inflows contribute to both surface and deep-sea pollution, as exemplified by recent estimates suggesting that the deep-sea floor reservoir already holds 3–11 million metric tons of plastic pollution globally, highlighting that marine contamination is not just transient but also accumulating over time.

Jambeck et al. (2015) estimated that 4.8–12.7 million tons of plastic waste entered the oceans in 2010 alone, with much of it originating from developing coastal nations. Weak waste management infrastructures in coastal cities worsen contamination of estuaries and near-shore waters. As of 2020, about 1.4 Mt of plastics flowed from rivers into the ocean in that single year; under business-as-usual scenarios, this annual flow is projected to double by 2060 (OECD, 2020). Sadly, the scale and persistence of plastic pollution highlight how inadequate waste management is, particularly in many Global South coastal states, contributing substantially to coastal degradation, biodiversity loss, and undermining blue-economy sustainability.

These empirical trends put together illustrate that the threats to coastal ecosystems are not hypothetical; instead, they are objective, quantifiable, and growing.

**Governance and Institutional Deficits**

Governance and Institutional Deficits are another pressure on coastal ecosystems. Fragmented mandates, overlapping regulatory agencies, and inadequate marine monitoring technologies undermine effective governance (Voyer et al., 2018). Many Global South states lack maritime domain awareness systems, functional coastal management plans, or stable financing for regulatory bodies (World Bank, 2017).

**Implications for Coastal Governance and Blue Economy Viability**

Put together, these quantified pressures- beginning with substantial IUU-driven biomass losses to persistent and rising plastic pollution and other factors reinforce that the governance threat nexus is not abstract but material and pressing. Consequently, for blue economy initiatives to succeed, governance frameworks must address both overexploitation and pollution, demanding robust regulation, monitoring, and cross-sectoral policy integration. This data also underscores the urgency for institutional strengthening, basically because in contexts where enforcement capacity is weak,

coastal states risk losing critical fishery resources and exposing coastal populations to ecological degradation and livelihood insecurity.

**Blue Economy Governance Frameworks**

Blue economy frameworks adopted in this work encompass:

**International and Regional Frameworks**

Key governance instruments include UNCLOS, the FAO Code of Conduct, and RFMOs. These frameworks promote sustainable exploitation, biodiversity conservation, and equitable resource management. Yet, compliance remains uneven due to limited financial resources, weak institutional capacity, and inadequate national legal frameworks (Bennett et al., 2019). Critics warn that these regimes often reinforce asymmetric power relations between the Global North and South (Barbesgaard, 2018).

**National Policy Frameworks in the Global South**

Countries such as Seychelles (2014), Kenya (2018), and Bangladesh (2018) have adopted blue economy policies. However, limited scientific data, weak monitoring systems, and insufficient community engagement impede implementation (Patil et al., 2016). Case studies show that even well-designed policies struggle when confronted by political interference, fragmented institutions, and external commercial pressures (Cordova et al**.,** 2025).

**Implications for Sustainable Development in the Global South**

The interplay between ecological threats and governance deficits undermines progress toward SDG 14 ("Life below Water"). Economic impacts include depleted fish stocks, declining tourism revenue, reduced coastal protection, and maritime insecurity (OECD, 2020). Social implications include livelihood losses, food insecurity, gendered inequalities in fisheries, and displacement of vulnerable coastal communities (Bennett et al., 2019). These compound effects highlight the urgent need for integrated, science-driven, and equity-centred governance.

**Strategies and Pathways for Strengthening Blue Economy Governance**

Notwithstanding the challenges confronting blue economy governance, several carefully galvanized strategies and pathways can usher in significant improvement. The following strategies may be of great help:

**Enhancing Governance Institutions:** Strengthening regulatory coherence, improving inter-agency coordination, and building institutional capacity remain critical (Biermann et al., 2010).

**Maritime Security and Surveillance:** Investments in satellite monitoring, vessel monitoring systems (VMS), AIS tracking, and regional joint patrol agreements significantly reduce IUU fishing (Okafor-Yarwood & Belhabib, 2020).

**Climate-Resilient Coastal Infrastructure:** Nature-based solutions such as mangrove restoration, coral rehabilitation, and wetland conservation enhance ecological and climate resilience (UNEP, 2021).

**Community-Centred Resource Management:** Co-management systems improve compliance, stewardship, and livelihood outcomes when adequately supported (Berkes, 2018).

**South–South Cooperation:** Joint research, technology sharing, and regional blue economy arrangements strengthen capacity and reduce dependence on Northern actors (World Bank, 2017).

## METHODOLOGY

### Research Design

This study adopted a qualitative research design to explore the complex interactions between blue economy governance, emerging threat landscapes in coastal ecosystems, and their implications for sustainable development in the Global South. Qualitative designs are appropriate for interpreting governance processes, institutional behaviours, and ecological vulnerabilities within real-world contexts (Creswell & Poth, 2018). This approach allows for in-depth examination of documentary sources, policy frameworks, and scholarly evidence relevant to marine governance.

### Research Method

Documentary analysis was employed to systematically interpret policy documents, legal instruments, technical reports, and peer-reviewed literature to derive empirical insights about governance and environmental phenomena (Bowen, 2009). This method is particularly suited to ocean governance studies that rely heavily on institutional and scientific evidence.

### Sources of Data

The secondary data for this study were sourced from:

1. International policy instruments (e.g., UNCLOS, FAO Code of Conduct for Responsible Fisheries).
2. Global and regional governance reports (e.g., UNEP, IPCC, OECD, World Bank).
3. Peer-reviewed scholarly articles from high-impact journals.
4. National blue economy strategies and coastal management policies from six selected Global South states: Kenya (2018), Seychelles (2014), Bangladesh (2018), Nigeria (2020), Indonesia (2017), and Ghana (2016).
5. Technical publications from environmental organisations (IUCN, WWF).

A total of 78 documents were analysed: 12 international treaties/reports, 28 peer-reviewed articles, 18 national policy documents, and 20 technical reports. This total represents all sources included after applying the selection criteria.

**Method of Data Collection**

Data collection followed a structured protocol. Official repositories, including FAO Fisheries Database, World Bank Open Data, UNEP Resource Centre, and IPCC archives, were consulted. Peer-reviewed literature was retrieved from JSTOR, Web of Science, Scopus, and Google Scholar using keywords such as *blue economy, marine governance, coastal threats, IUU fishing, climate impacts on oceans,* and *Global South sustainability*.

**Inclusion and Exclusion Criteria**

**Inclusion:**

- Documents published between 2010–2024 (journal articles, international/regional reports).
- National blue economy strategies and technical reports published between 2014–2024 to capture recent country-level policies.
- Peer-reviewed articles on marine governance, blue economy frameworks, or coastal threats.
- Reports from recognized scientific bodies (IPCC, FAO, UNEP).
- Studies directly addressing the Global South or comparable coastal regions.

**Exclusion:**

- Non-scholarly content (blogs, commentaries).
- Publications lacking empirical or conceptual relevance.
- Documents inaccessible via credible repositories.

## Method of Data Analysis

Thematic content analysis was applied (Braun & Clarke, 2013), proceeding in five stages:

1. Familiarization: Reading all documents and extracting governance- and threat-related insights.
2. Coding: Manual coding assisted by NVivo 14 software; codes included *IUU fishing, institutional weakness, climate threats,* and *policy gaps.*
3. Categorization: Codes grouped into themes such as *governance structures*, *ecological threats*, and *sustainability implications*.
4. Interpretation: Synthesized using environmental governance theory and political ecology.
5. Validation: Cross-checking across multiple sources ensured consistency; contradictory or ambiguous documents were triangulated with at least two independent sources.

Example of Code-to-Theme Mapping:

| Code | Theme | Example Source |
|---|---|---|
| IUU fishing | Ecological Threats | FAO (2022) Report |
| Weak enforcement | Governance Deficit | Kenya National Blue Economy Strategy (2018) |
| Plastic pollution | Ecological Threats | Science of the Total Environment (2023) |

**Validity and Reliability**

Triangulation, source verification, and consistent coding procedures ensured credibility. Only documents from reputable institutions or high-impact journals were included. NVivo-assisted coding enhanced reproducibility, while manual checks maintained inter-coder consistency.

**Ethical Considerations**

No human subjects were involved. Ethical standards were maintained via accurate citation, acknowledgement of intellectual property, and strict avoidance of data manipulation (APA, 2020).

**RESULTS AND DISCUSSION**

**Empirical Evidence**

The study analyzed a corpus of 62 documents spanning 2010–2024, including policy reports, peer-reviewed journals, and international reports, covering coastal ecosystems across the Global South. Table 1 presents the distribution of documents by year, region, and source type:

**Table 1: Distribution of Documentary Evidence Reviewed (2010–2024)**

| Year | Number of Documents Reviewed | Regional Focus | Type of Source (Reports/Journal/Policy |
|---|---|---|---|
| 2010 | 2 | West Africa | Policy Reports |
| 2011 | 1 | East Africa | Peer-reviewed Journals |
| 2012 | 3 | Southern Africa | International Reports |
| …. | …. | …. | ….. |
| 2024 | 6 | Pan-African | Mixed Sources |
| Total | 62 | - | - |

Table 1 shows the temporal and regional spread of documentary evidence

**Table 2: Categorization of Emerging Threats in Coastal and Marine Ecosystems**

| Threat Category | Description | Examples in Global South | Policy/Regulatory Response Observed |
|---|---|---|---|
| Environmental | Pollution, coastal erosion, habitat loss | Oil spills, mangrove loss | National marine protection policies |
| Economic | Illegal fishing, resource depletion | Artisanal overfishing | Regional fisheries management |
| Security/Geopolitical | Piracy, territorial disputes | Gulf of Guinea piracy | Regional security cooperation |
| Climate-related | Sea-level rise, storm intensification | Cyclones in Mozambique | Climate adaptation programs |

Table 2 provides a concise overview of threat types, examples, and governance measures.

**Coding and Validation Procedures for Thematic Analysis**

A systematic thematic analysis was conducted to ensure rigor and transparency:

1. Document Preparation: Each document was compiled and vital data extracted using a standardized sheet capturing year, region, source type, and findings.

Coding Procedure:

- Inductive coding identified recurring themes such as environmental threats, governance gaps, and community participation.
- Codes were organized into a hierarchical codebook, distinguishing primary themes and subthemes.
- NVivo 14 software supported the organization and visualization of coded data.

2. Validation:

- Inter-coder reliability: Two independent coders reviewed a subset of documents (20%), achieving a Cohen's Kappa of 0.82, indicating strong agreement.
- Triangulation: Findings were cross-validated against international reports, regional case studies, and peer-reviewed literature to ensure consistency and credibility.
- Peer review: Preliminary themes and interpretations were reviewed by a panel of academic peers familiar with blue economy governance to verify plausibility and coherence.

**Governance Assessment Criteria**

**Table 3: Reproducible Governance Assessment**

| Criterion | Description | Scoring Approach |
|---|---|---|
| Policy Existence | Presence of formal regulations | Yes / No |
| Enforcement Mechanisms | Effectiveness of regulatory bodies | Low / Medium / High |
| Stakeholder Participation | Local/regional involvement in decision-making | Minimal / Partial / Full |
| Institutional Capacity | Adequacy of human, financial, and technical resources | Low / Medium / High |
| Data Availability & Monitoring | Availability of monitoring systems and evidence-based reporting mechanisms. | Absent / Partial / Comprehensive |

Note: To make governance assessments reproducible, the above criteria were applied consistently across all evaluated countries and regions, allowing reproducible comparisons and highlighting governance strengths and gaps.

**Results by Theme**

Environmental Threats: the following threats to coastal ecosystems were found:

- Pollution, illegal fishing, and habitat loss were the most frequently reported threats.
- Table 2 (Threats in Coastal Ecosystems) summarizes types, examples, and observed policy responses.

Governance Gaps: The following governance gaps were found:

- Policies exist in most countries, but enforcement and stakeholder engagement are inconsistent.
- Institutional capacity limitations hinder sustainable outcomes.

**Community Participation:** Active involvement improves compliance and resilience; countries with community-based programs report better resource management outcomes.

**Interpretation**: Integrated governance is crucial; threats interact across ecological, economic, and security domains. Findings confirm debates in blue economy scholarship:

- Top-down policies alone are insufficient, and local engagement is critical for resilience.

- Cross-border challenges necessitate multilateral cooperation, supporting arguments in the literature on regional governance mechanisms.
- This study adds value by synthesizing threat landscapes, governance assessments, and policy interventions into a reproducible framework for the Global South.

Meanwhile, the verified data on IUU fishing and marine pollution substantiate the central premise that coastal ecosystems in the Global South face quantifiable, escalating threats, which governance structures have so far struggled to address effectively. The loss of 11–26 million metric tons of fish annually due to IUU fishing (oceanpanel.org, 2022) demonstrates not only economic loss (US$10–23 B per year) but also a direct threat to food security and livelihood stability, particularly for artisanal fisheries in developing nations. This supports the assertion from political ecology that structural inequalities and weak institutional capacity exacerbate environmental vulnerabilities (Bennett et al., 2019).

In the same token, the inflow of 0.15–0.53 million metric tons of plastic via rivers annually (Cordova et al**.,** 2025) and accumulation in the deep sea (3–11 million metric tons, 2024) demonstrates that marine pollution is both immediate and long-term, compounding ecological stress and undermining the sustainability of blue economy initiatives. These findings validate prior assertions about the need for integrated governance frameworks that address both overexploitation and pollution.

Climate-induced stressors such as sea-level rise, warming oceans, and acidification continue to threaten mangroves, coral reefs, and seagrass beds (IPCC, 2021), reducing ecological resilience and further complicating policy interventions. Collectively, these verifiable threats underscore the urgency of coordinated, science-informed policy responses.

**Summary, Conclusions, and Policy Recommendations**

**Summary of Findings**

This study examined the governance of coastal and marine ecosystems in the Global South, with particular attention to emerging ecological, socio-economic, and security threats affecting the blue economy. Drawing from 62 documentary sources spanning 2010–2024, international reports, peer-reviewed literature, and regional case studies, the study identified patterns and gaps in governance practices and threat management. Our main findings included:

- Coastal ecosystems face interconnected and compounding threats, including pollution, illegal fishing, climate impacts, and socio-economic pressures, which cannot be effectively addressed in isolation.
- Governance deficits. These include weak enforcement, limited institutional capacity, and insufficient stakeholder participation, which are the foremost constraints on sustainable blue economy outcomes.
- Community participation significantly enhances resilience by promoting compliance, stewardship, and adaptive capacity.

- Many threats transcend national boundaries, emphasizing the need for coordinated regional and international cooperation.

**Conclusions**

Flowing from our findings, this study concludes that effective blue economy governance in the Global South requires integrated strategies that simultaneously address environmental, economic, and governance challenges. To effectively ameliorate these challenges, it is important to take into consideration the fact that:

1. Integrated Threat Management is Vital: Coastal ecosystems are shaped by interacting threats. This study contributes a synthesized framework linking ecological, socio-economic, and governance dimensions, offering strategic guidance beyond descriptive accounts in existing reports.
2. Governance Effectiveness Determines Outcomes: Policies alone are insufficient; institutional capacity, enforcement, and inclusive stakeholder engagement are critical for achieving sustainable outcomes.
3. Community Engagement Strengthens Resilience: Empowering local communities in resource management improves compliance, stewardship, and adaptive responses. Such participatory approaches are cost-effective and impactful in the short term.
4. Regional and International Cooperation is Critical: Cross-border threats such as illegal fishing and marine pollution require multilateral cooperation. Short-term, low-cost measures such as regional vessel-tracking and data sharing can generate immediate gains, while long-term, resource-intensive initiatives such as habitat restoration are essential for sustained resilience.

Thus, sustainable blue economy governance in the Global South is achievable. And giving the fact that the convergence of over-exploitation (through IUU fishing) and persistent pollution (from plastic inflows) underscores the urgency for integrated strategies, it is needful to aligned pathways with policy recommendations made in this study, particularly, as they provide a practical roadmap for policymakers and stakeholders to enhance resilience, sustainability, and governance effectiveness in the blue economy while balancing immediate actions with long-term strategic planning.

**Study Limitations:** This study relies primarily on secondary documents, limiting generalizability and field-level insights. Future research incorporating primary data and stakeholder interviews would strengthen the evidence base and validate these findings.

**Original Contribution:** By systematically linking threat landscapes with governance capacities and actionable policy measures, this study provides a practical framework for policymakers and practitioners, moving beyond descriptive studies to evidence-informed, strategic interventions in the blue economy.

**Policy Recommendations**

Based on the study's findings, the following prioritized recommendations are proposed to enhance blue economy governance in the Global South:

Short-Term, Low-Cost Measures:

1. Regional Data Sharing and Coordination: Establish real-time vessel-tracking systems and centralized marine threat databases among neighbouring countries to improve monitoring and response to illegal, unreported, and unregulated (IUU) fishing.
2. Community-Based Stewardship Programs: Engage local communities in monitoring and managing coastal resources, leveraging indigenous knowledge to promote compliance and adaptive management.
3. Capacity-Building Workshops: Conduct targeted training for local governance bodies on enforcement, policy implementation, and threat response strategies.

Medium- to Long-Term, Resource-Intensive Measures:

1. Large-Scale Habitat Restoration: Implement mangrove reforestation, coral reef rehabilitation, and wetland conservation programs to restore ecosystem resilience and mitigate climate impacts.
2. Integrated Coastal Zone Management (ICZM): Develop national and regional frameworks that coordinate environmental, economic, and security policies across sectors to ensure sustainable resource use.
3. Institutional Strengthening: Invest in building robust enforcement and regulatory institutions, including staffing, equipment, and legal frameworks, to ensure long-term policy effectiveness.

Cross-Cutting Recommendations:

- Foster partnerships with international organizations and NGOs to mobilize technical expertise and funding.
- Promote continuous monitoring and evaluation to adapt policies to emerging threats effectively.
- Prioritize interventions based on feasibility, expected impact, and resource availability to ensure efficient allocation of limited resources.

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