

Legal Pluralism, Maritime Security, and the Blue Economy: Regional-International Governance Dynamics in Africa's Great Lakes

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Abstract

Maritime security and sustainable blue economy have, over time, been acknowledged as inseparable pillars of growth, stability and development, yet their administration in inland transboundary waters is under-theorised. It is against this backdrop that this study examines how regional-international legal frameworks shape blue economy governance and maritime security outcomes in the Great Lakes region of Africa. Using comparative qualitative case studies and doctrinal legal analysis of Lakes Victoria, Albert and Tanganyika, this study examines the interaction between global regimes, such as the International Maritime Organization (IMO) conventions, the United Nations Convention on the Law of the Sea (UNCLOS), including the Sustainable Development Goal 14 and other regional institutions, for example, Africa Union, the Lake Victoria Basin Commission and the East African Community. The study finds a situation of functional legal pluralism characterised by normative diffusion, uneven domestication of legal instruments, and institutional overlap. While the available frameworks offer a robust normative architecture, fragmented regional coordination and a lack of capacity to implement, they thwart their ability to prevent illegal fishing, unlock blue economy potential and enhance maritime security. This study makes a significant scholarly contribution to maritime governance by carrying forward the debates on the governance of the blue economy, maritime security, and inland waters by giving a clear demonstration that the capacity to enforce, legal coherence and regional integration are important variables in translating law into sustainable development outcomes.

Keywords: *Maritime security, sustainable blue economy, legal frameworks, Great Lakes Region, regional, global*

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Introduction

The Great Lakes region of Africa which constitute Lakes Victoria, Albert, Tanganyika, Kivu, Edward, and Malawi, among others is one of the greatest and important inland water bodies in the globe (Shyaka, 2008). These freshwater regions border each other in one way or the other and they share a myriad of states in East and Central Africa, and are very key in ecological balance, regional economic integration and source of livelihoods (FAO, 2023). They offer support to millions of people in areas like agriculture, fisheries, hydro-electric power, water supply, tourism and transportation. At the same time, they are critical in the “blue economy,” a policy which emphasizes sustainable use of resources from the aquatic environment for economic growth and development, environmental preservation and enhanced livelihoods (World Bank, 2019).

Despite the ecological and economic importance, the Great Lakes region experiences protracted challenges that hinder its sustainability and stability. They include cross-border smuggling, Illegal, Unreported and Unregulated (IUU) fishing, environmental degradation, piracy-like incidents and climate induced stressors among others (UN, 2023). These challenges not only erode the foundations of a sustainable blue economy but also undermine maritime security (UNCTAD, 2022). At the same time, inconsistent regional ties, fragmented governance systems and feeble capacity to enforce applicable laws continue to exacerbate vulnerabilities. In this situation, there is urgent and multifaceted international and regional legal frameworks to address insecurities and enhance sustainable development. This background part locates the study by analyzing the global discussions on the sustainable blue economy and maritime security, international and regional legal frameworks that control them and the specific problems confronting the Great Lakes region in Africa. In doing this, the study highlights institutional weakness and governance gaps that persist, while at the same time underscoring the importance of harmonized stronger enforcement mechanisms and legal frameworks.

Background

Maritime Security Beyond the Oceans: Conceptual Evolutions and Gaps

The concept of maritime security has been transmogrified into a significant conceptual expansion during the past two decades. At first, it was conceptualised under the traditional military and naval spheres with the focus on piracy, territorial defence, and interstate conflict. Hitherto, maritime security has evolved and has become a multidimensional concept of governance encompassing environmental crime, illegal fishing, economic security and safety of navigation (Siebels, 2020; Bueger, 2015). This change is a reflection of a broader shift in the thinking of international security, where non-traditional threats and transnational risks progressively thwart state-centric models of control. Despite this broader conceptualisation, most of the literature on maritime security remains centred on oceans, with empirical focus on high-profile maritime theaters for example, the Horn of Africa, the Gulf of Guinea, and the Strait of Malacca (Siebels, 2020; Bueger, 2015). Inland waters, more so freshwater in large transboundary systems, have in the recent past received limited scholarly attention. Where scholarly literature on inland water bodies exists, they are always regarded as developmental or environmental spaces instead of security-relevant maritime domains. This creates a scholarly gap in understanding how the administration of maritime security operates in contexts where weak enforcement capacity, jurisdictional ambiguity, and livelihood dependence are mostly pronounced.

Most of the works in the recent past have attempted to acknowledge these shortcomings by itemising the applicability of maritime security principles to inland waters, more so in Africa, where lakes are mostly used as corridors of trade, illicit activity and mobility (Musya & Handa, 2023). At the same time, these scholarly works tend to remain case-specific or descriptive, without systematic engagement with how legal frameworks structure administration outcomes in such ecosystems. It is against such a background that this study builds on and extends this emerging scholarship by treating inland lakes as maritime administration spaces, which are subject to tumultuous legal pluralism as opposed to peripheral cases or exceptional.

The Blue Economy: From Development Paradigm to Governance Challenge

The blue economy has in the recent past become one of the key developmental paradigms in African policy and global discourse, making sustainable application of aquatic resources as a source of livelihoods, economic growth and environmental resilience (UNECA, 2020; World Bank, 2018). These assertions were articulated and agreed upon in major global forums, for example, the Rio+20. The idea gained momentum in Africa via continental strategies such as Africa's Integrated Maritime Strategy 2050 and the African Union's Agenda 2063 (AU, 2012). These statutory agreements posit aquatic resources, including freshwater and marine alike, as assets which have been underutilised and are capable of driving structural transformation.

Scholars have attempted to engage with the blue economy by emphasizing its major contribution to employment, food security, trade and energy (OECD, 2024). Similarly, critical studies give warning against being overly technocratic or extractive interpretations that give priority to growth over equity, sustainability and governance (Obura, 2020). Without proper systems for regulations, the initiatives for the blue economy risk precipitating the depletion of resources, generating new vulnerabilities based on security and reinforcing inequalities. One of the weaknesses of the available scholarly literature on blue economy is on the tendency to describe sustainability and security as parallel objectives instead of mutually constitutive challenges of governance. Available scholarly literature focuses on sectoral outcomes, such as port development, fisheries productivity, or growth of tourism, without sufficiently analyzing how insecurities thwart these achievements or how feeble governance enhances incentives for illicit activity (World Bank, 2019). This mismatch is problematic, more so in inland contexts such as the Great Lakes, where livelihoods solely rely on aquatic resources, and there is limited enforcement capacity. By combining maritime security proportionally into the analysis of blue economy administration, this study responds to a greater call for more holistic and politically informed approaches (Obura, 2020; UNECA, 2020).

International Legal Frameworks and Maritime Governance

International law is a critical framework in shaping international maritime governance principles and norms. The United Nations Convention on the Law of the Sea (UNCLOS) mostly described as the "constitution of the oceans," provides principles for resource management, jurisdiction, dispute resolution and environmental protection (Tanaka, 2019). While UNCLOS was formulated basically for marine ecosystems, its principles, more so those regarding to environmental stewardship, cooperation, and shared resource management, have hitherto informed governance approaches in inland waters. Available literature notes, however, that UNCLOS and other relevant instruments for example United Nations Fish Stock Agreement (UNFSA) and IMO conventions were not drafted with freshwater systems in mind, creating operational and interpretive challenges when used to rivers and lakes (Tanaka, 2019).

This has led to normative spillover which does not correspond to institutional clarity, making various states to adopt oceanic principles instead of inland realities through domestic legislation and regional agreements.

Inland transport governance specifically search rescues is influenced by IMO convention specifically in training, and safety, particularly on high-profile accidents in the great lakes (IMO, 2023a). Yet, empirical studies suggest that compliance with these principles and standards in the contexts of inland remain uneven, challenged by limited capacity of inspection, weak enforcement regimes and outdated vessels (World Bank, 2019). The available literature hence highlights a pattern which is recurring; international legal norms introduce expectations but do not offer outcomes, more so where international coordination and capacity is feeble.

Regional Legal Frameworks and Institutional Architecture in Africa

In a bid to respond to challenges in global governance, African states have adopted domestic, sub-regional and regional frameworks objectively to contextualise maritime governance. For example, Africa's Integrated Maritime Strategy 2050 is a representation of a comprehensive attempt to link economic development, maritime security and environmental protection to cover both inland waters and marine (AU, 2012). Scholars view Africa's Integrated Maritime Strategy 2050 as being overly ambitious, but operationally relies upon national implementation and regional economic communities (Siebels, 2020). Sub-regional bodies such as the Inter-Governmental Authority on Development (IGAD), the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA) have all expounded further conversation on blue economy and maritime governance strategies based on regional priorities (COMESA, 2019; IGAD, 2021). In the context of the Great Lakes, organisations such as Lake Victoria Fisheries Organisation and Lake Victoria Basin Commission are critical in coordinating transport safety, fisheries management, and environmental protection (LVFO, 2021; LVBC, 2021). These organisations represent some of the examples which are most developed with regards to freshwater governance in Africa.

Nevertheless, the available literature progressively singles out recurring challenges; uneven member-state commitment, overlapping mandates, limited power of enforcement, and resource constraints (Sayer et al., 2018). While there have been dialogues across the region by African institutions and harmonisation, there is always limited power of coercion, relying instead on the power of voluntary compliance and consensus. This institutional design embeds the condition of legal pluralism, where a plethora of frameworks coexist, without a clear mechanism for conflict resolution or embedding standards consistently all over the continent's borders.

Legal Pluralism and Governance Outcomes

Legal pluralism, which entails the availability of a plethora of legal orders in a given governance ecosystem, has become a critical concept in analysing chaotic regulatory environments (Tanaka, 2019). In maritime governance, legal pluralism emerges as a result of the presence of multiple international conventions, customary practices, regional protocols, and domestic law. According to some scholars, pluralism is capable of enhancing flexibility and local adaptation, but it is also responsible for diluting accountability and creating enforcement gaps if not properly managed. In the Great Lakes regions, for example, the manifestation of legal pluralism is through fragmented fisheries laws, overlapping security mandates, and divergent transport regulations across riparian states. Available studies in the Great Lakes

region, more so on Lake Victoria recognizes that while harmonised policies are available, there are significant differences in terms of implementation practices significantly, and this gives vent to unsafe transport practices and illegal fishing to persist (LVFO, 2021; Handa & Musya, 2023). This supports larger discourse and evidence of maritime governance literature that law is most effective when permeated within coordinated institutions and supported by evidenced mechanisms for enforcement (Bueger, 2015; UNCTAD, 2022). The available literature progressively lays emphasis that legal pluralism must be coupled with active governance through capacity building, harmonization, and integration instead of assumed to self-correct. Without such governance, pluralism risks being a structural vulnerability instead of being a source of resilience.

Political Economy, Livelihoods and Compliance

There is a growing body of literature which highlights dimensions of the political economy of the maritime governance, more so, in developing regions where livelihoods relies upon aquatic resources heavily (Obura, 2020). Compliance with safety and fisheries regulations is modelled not only by the deterrence of law but also by social norms, economic incentives, and perceptions of legitimacy. Where livelihoods are threatened by enforcement without offering alternatives, evasion and resistance become rational responses. Research on African inland fisheries gives a demonstration that cross-border trade, informal markets and broker-dominated value chains has the capability to thwart efforts with regards to regulation, more so in instances of selective or corruption in enforcement (FAO, 2023). At the same time, research on inland transport safety also demonstrate that economic pressure, such as cost of minimization and competition, is a motivation to non-compliance in instances of feeble inspection regimes (World Bank, 2019). These findings underscore the need to amalgamate considerations for livelihood into blue economy governance and maritime security, an aspect often underdeveloped in legal and policy-focused studies.

Knowledge, Data, and Evidence-Based Governance

Finally, the reviewed literature has identified a weak data system to be as critical but always overlooked challenge on maritime governance. Effective sustainability and security interventions rely upon a reliable information on resource stocks, incidents, and patterns of compliance (UNCTAD, 2022). In the contexts of inland, fragmentation of data across various countries and agencies thwarts coordinated action and reduces the ability to do policy evaluation effectively. Attempts to improve communication and reporting on Lake Victoria for example, illustrates the gains in governance when data infrastructure is strengthened (World Bank, 2019). However, systematic, region-wide data integration remains rare, reducing the analytical capacity of both states and the regional blocks. Scholars have progressively made argument that investment in data systems are equally important as legal reforms in converting norms into outcomes.

Synthesis and Scholarly Contribution

Taken together, the literature review gives a revelation on three major persistent gaps. First, there is under-theorization of inland waters within the scholarship of maritime security. Second, studies on blue economy always overlook security and governance dynamics. Third, legal analysis always looks at normative architecture minus sufficiently expounding on the implementation outcomes. By coupling maritime security, legal pluralism, and blue economy governance within a single analytical framework, this study has attempted to address these gaps

by contributing to a more comprehensive understanding of how political economy, institutions, and law interact in Africa's Great Lakes region.

Theoretical Basis

This study borrows from the concept within maritime governance called *legal pluralism*, which believes in the co-existence and interaction of domestic, regional, and international legal regimes governing shared marine spaces (Bueger, 2015; Tanaka, 2019). Instead of taking a linear relationship between governance outcomes and legal adoption, the study argues that blue economy performance and maritime security along the Great Lakes region are shaped by the quality of institutional mediation between different overlapping legal entities. By conceptualizing the blue economy and maritime security as major domains in mutually constitutive governance, this study advances an analytical view that goes beyond sectoral treatment and explains how the capacity to enforce, regional political economy and inter-agency coordination can determine whether legal frameworks can yield material security and development gains.

Analytical Framework: Legal Pluralism, Maritime Security, and Blue Economy Governance

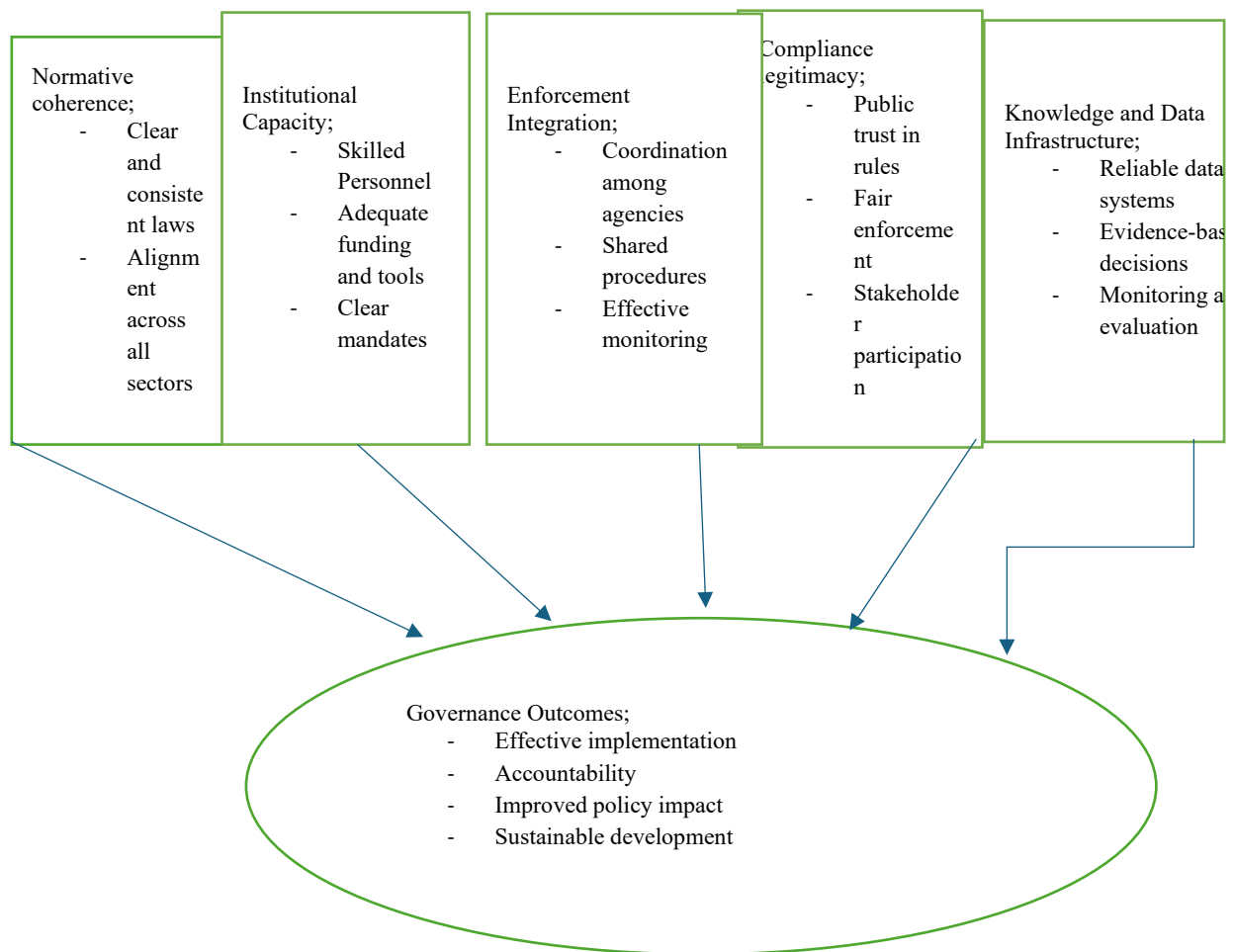
Maritime administration in the Great Lakes region of Africa revolves around *legal pluralism*, a situation where domestic statutes, regional protocols, and international conventions interact, coexist and sometimes in competition without a clear and enforceable mechanisms (Tanaka, 2019). In the context of the Great Lakes, this pluralism is heightened by the fact that several "maritime" legal frameworks were previously drafted to take care of ocean spaces, yet their institutional logistics and principles are spontaneously spread to inland waters through regional practice, policy transfer, and interpretive adaptation. The analytical framework employed in this study, treats legal administrations not as self-executing challenges, but as resources for governance whose influence depends on how they are agreed upon by various institutions, incentivized and the capacity to operate across varied scales (Bueger, 2015). The framework is crafted to give an explanation on variations in outcomes seen across case studies in this work (Lakes Tanganyika, Victoria and Albert) by tracing how legal norms move, from paper to policy to enforcement, within an economically and politically charged transboundary ecosystems.

The framework begins from a grounded proposition; blue economy and maritime security performance are mutually constitutive, not distinct domains. Maritime insecurity such as, Illegal, Unreported and Unregulated (IUU) fishing, transport related deaths, violent robbery among others undermines sustainability, erodes investments, and distorts resource governance, hence, weakening opportunities in the blue economy sector. Moreover, unstable blue economy governance, for example, unregulated fisheries value chains or uneven benefit sharing, can be a playground for incentives for evasion of rule, criminal entrepreneurship, rent seeking, thus intensifying insecurity. This interdependence is in agreement with current studies on maritime security, which conceptualizes "maritime security" as a broad field of governance instead of a narrow naval problem (Bueger, 2015). Similarly, the framework offers an evaluation of legal tools (such as, IMO conventions, UNCLOS, SDG 14, AU Maritime strategies, EAC/LVBC protocols among others) not just their formal commitments, but also, ability to shape proper governance outcomes in sustainability, security, and livelihoods.

To make this claim, the framework identifies five interacting variables that explains how legal frameworks translate into outcomes.

Figure 1

Translation of Various Legal Frameworks into Governance Outcome's framework



Source: Authors (2026)

Normative Coherence. This means the degree of alignment among national laws, regional protocols, and international obligations in defining mandates, offenses, enforcement powers and standards. In instances of high coherence, actors can collaborate via shared definitions, such as minimum requirements for safety, standards of evidences, and what constitute IUU. In instances of low coherence, differentiated mandates and rules which contradicts, creates regulatory arbitrage and weak accountability (Tanaka, 2019). Coherence therefore, can be measured using (i) clarity of institutional mandates, (ii) consistency of legal definitions across jurisdictions, and (iii) the presence of harmonized standards or model laws.

Institutional Capacity. Capacity involves instances where states and regional institutions can implement legal mandates through surveillance, inspection, compliance and adjudication and finally monitoring. Lack of vessels, trained inspectors, communication systems, prosecutorial capacity, producing a gap between “law on the books” and “law in action” by agencies can make robust legal texts to always remain just symbolic (UNCTAD, 2022). Indicators which shows institutional capacity include training standards, staffing, and availability of monitoring technologies, budget allocation, and the functioning of safety and fisheries regimes for inspection. Enforcement integration (horizontal and vertical). Horizontal integration means working together among agencies within a given state such as police, fisheries, maritime authorities, customs, and local governments among others. Vertical integration, on the other hand, involves coordination across scales such as local units of enforcement, national agencies and regional agencies. Feeble integration yields jurisdictional conflict, slow response and duplication. While, strong integration yields intelligence sharing, joint patrols, and interoperable incident response systems. From governance experience, coordinated operations, and information sharing architectures are prominent to suppressing transboundary maritime crime and enhancing safety performance (Bueger, 2015; UNCTAD, 2022).

Compliance legitimacy and Political economy incentives. The framework asserts that compliance is shaped by incentives such as rents in fisheries licensing, profits from illicit trade, and the distribution of benefits from the blue economy. In instances where communities see enforcement as exclusionary or predatory, rule evasion becomes normalized and compliance declines. Compliance only increases where there are credible sharing of benefits and the protection of livelihoods. These variables are always applicable to communities who are fisheries dependent-lakeshore, where pressure of livelihoods and incentives for market may drive illicit or informal practices (Obura, 2020). Knowledge and data infrastructure. Proper governance requires effective data on incidents, stocks, vessel registration, and safety performance. In instances where there are feeble fisheries data and reporting systems, enforcement is politicized and reactive, while legal framework evaluation is reduced to compliance to narratives instead of measurable incomes. Global maritime governance project highlights that feeble systems of data are stumbling blocks to accountability and enforcement therefore thwarts the results (UNCTAD, 2022; World Bank, 2019).

From the foregoing, the variables indicate that the framework is capable of generating testable expectations for the case studies in the Great Lakes region. The expectations include (i) regional and international legal frameworks enhances outcomes only when normative coherence is put in practice through harmonization and domestication (Tanaka, 2019). (ii) In instances of low capacity, there will be a correlation between legal frameworks and policy activity but not with minimized trafficking, improved safety, and IUU fishing (UNCTAD, 2022). (iii) In instances of strong integration and enforcement on the basis of information sharing, joint patrols, transboundary offences will decline and improve safety performance (Bueger, 2015; World Bank, 2019). And (iv), In instances of misaligned incentives from the political economy, there exist high illicit rents and reduced livelihood alternative and therefore, legal reforms will be applied selectively and enforced unevenly (Obura, 2020).

Therefore, this analytical framework is capable in this study to transit from cataloguing instruments to explaining how and why they matter. It treats law as a mechanism for governance whose effectiveness relies upon integration, coherence, capacity, incentives and data variables that collectively decide whether goals of maritime security and blue economy are achieved in the Great Lakes region of Africa.

Methodology

This study adopted a qualitative case study design which integrated legal analysis to assess the role of international and regional legal frameworks in enhancing sustainable blue economy and maritime security across the Great Lakes region. This methodology combined empirical case studies and doctrinal legal research. Doctrinal legal research involved reviewing institutional frameworks, regional protocols and treaties, for example, Lake Victoria Basin Commission Agreements, Lake Tanganyika Convention, and EAC Protocols among other international instruments for example the FAO code of conduct for Responsible Fisheries, and United Nations Convention on the Law of the Sea (UNCLOS). This will be helpful in identifying governance gaps, normative obligations and provisions.

Qualitative empirical research focused on case studies by selecting lakes, for example Lakes Victoria, Albert and Tanganyika. These lakes have been selected because of their economic significance and differing structures of governance. Additionally, secondary data was also obtained from reviewing official reports, academic literature, incident logs which were analyzed to contextualize results and discussions. Thematic analysis was employed to identify patterns across cases, while institutional mapping was done to highlight various overlap and gaps.

While the qualitative design permits for in-depth legal and institutional analysis, the study recognizes some of the challenges associated with reliance on documentary sources and secondary data. To mitigate this challenge, the study employed triangulation across policy reports, legal texts, and incident documentation from multiple jurisdictions. The selected case studies is a representation of analytically contrasting governance contexts, allowing the explanatory leverage of the findings. Future research could enhance causal inference through primary interviews with fishing communities, maritime authorities and systematic incident data analysis.

Analysis of Findings

Translating Legal Architecture into Outcomes: What the Evidence Shows

Across the Great Lakes regions, evidence is vivid and it gives an indication of consistent pattern; legal frameworks are not the binding setback to the performance of blue economy and maritime security. Instead, outcomes are shaped by how effective translation of legal norms are made into coordinated operations, enforceable rules, usable data system and legitimate compliance incentives. International instruments such as the IMO conventions, UNCLOS principles, SDG 14 and continental or regional frameworks such as EAC/LVBC arrangements, IGAD strategies, and AIMS 2050 offers an elaborate normative architecture for sustainability, safety and cooperation (AU, 2012; UN, 2023; IMO, 2023b).

Yet the findings reveal that this architecture always offer normative diffusion without proper and consistent enforcement, therefore producing uneven reductions in Illegal, Unreported, and Unregulated (IUU) fishing, continuing cross-border illicit economies that thwarts gains in sustainable blue economy, and persistent safety deficits in inland transport (World Bank, 2019; UNCTAD, 2022). This comparative evidence ranging from Lakes Victoria, Tanganyika and Albert emphasize that the decisive variables are institutional capacity, normative coherence,

enforcement integration, knowledge/data infrastructure, and political economy incentives/legitimacy (Tanaka, 2019; Bueger, 2015).

Normative Coherence: Fragmented Domestication and Overlapping Mandates

First finding of this study reveals that normative coherence remains partial. At the level of commitment and texts, many states in the region refers to international protocols, more so around environmental protection, fisheries governance, and vessel safety. However, across the Great Lakes region, the adoption of the obligations and converting them to enforceable inland-water regimes remains institutionally fragmented and inconsistent. This is partly structural; much of the global maritime order is ocean-oriented, and there is limited comprehensive regime with well-defined jurisdictional principles, mechanisms for dispute resolution framed to shared lakes, and operational standards (Tanaka, 2019).

Consequently, inland governance is administered via a patchwork of regional principles, national statutes, and lake commissions which do not always commit to sanctions, definitions, and enforcement powers (Lake Victoria Basin Commission, 2021; Lake Victoria Fisheries Organization, 2021). In reality, a lot of loopholes to compliance are created as a result of this fragmentation. The parties can maximize the differences in licensing regimes, patrol expectations, gear standards, or threshold of prosecution all over the borders. In instances where there are overlap based on mandates, normative incoherence is always seen. Maritime authorities, fisheries agencies, local government structures, police units, and environmental regulators always hold partial authority minus chains of combined enforcement, yielding unclear leadership in day-to-day operations and crisis response. While organizations at the regional level such as Lake Victoria Fisheries Organizations and Lake Victoria Basin Commission, offer harmonized platforms, their success relies on state level and resourcing, which changes from one country to another and even from one subnational jurisdiction to another (LVBC, 2021; LVFO, 2021). The aim is to ensure that there is circulation of legal norms as policy language, but they do not converge consistently into combined standards that can be enforced and monitored across borders.

Institutional Capacity: The Enforcement Gap as the Main Bottleneck

The second findings identify gaps in the institutional capacity, not absence of the law, but mostly on the persistence under-realization of the available potential in the blue economy and insecurity. Even in the existence of legal standards, failure in the enforcement is always realized due to inadequate assets for patrol, inadequate training, weak systems of inspections, and challenges in the judicial flow-through. This always occur simultaneously with the larger maritime governance research which show that security governance relies solely on inter-agency functionality, and operational capability instead of a mere legal density (Bueger, 2015; UNCTAD, 2022). Challenges relating to capacity are always acute on the Great Lakes region because initiatives for enforcement must cover expansive lakes surfaces, highly mobile actors operating in informal markets and dispersed landing sites.

Inland maritime safety offers a good illustration for this. Despite the availability of principles of international safety and commitments at the regional levels, inland transport has faced tumultuous accidents that indicates recurring gaps in seamanship standards, vessel inspection, and emergency response readiness. A good example is the MV Nyerere catastrophe on Lake Victoria which laid bare systemic challenges in compliance with fundamentals for safety, such as vessel seaworthiness inspections, overcrowding controls, and proper search-and-rescue

readiness (IMO, 2023a; World Bank, 2019). The findings do not just explain that safety rules are present but not adhered to, rather, safety rules are not always operationalized into day-to-day cycles of inspections, credible deterrence and enforceable sanctions. Similarly, fisheries governance faces challenges of limited capacity of monitoring such as gear checks, patrol frequency, landing-site enforcement, and management of evidence for prosecution remain unequally applied, allowing Illegal, Unreported, and Unregulated (IUU) fishing to recur even though there are harmonized attempts (Food and Agricultural Organization (FAO), 2023; LVFO, 2021).

Enforcement Integration: Where Coordination Exists, Outcomes Improve

The third finding explains that enforcement integration, both vertical (across borders and levels) and horizontal (within states), is the most trusted indicator of improved outcomes. In instances of available integration through combined patrols, cross border inspection, shared licensing protocols, and information sharing mechanisms, Illegal, Unregulated, and Unreported (IUU) fishing and related unauthorized practices become difficult to sustain. Conversely, in the instances where agencies operate in silos, parties maximize institutional rivalries and jurisdictional boundaries.

Available evidence from Lake Victoria shows that mechanisms for regional coordination can yield improvements in terms of measurable governance, despite limitation of capacity. The Lake Victoria Fisheries Organization's harmonized fisheries management planning and the organization of coordinated efforts against illegal fishing indicates practical values of collaborative action and shared standards (LVFO, 2021). Likewise, regional focus to inland transport safety, which is supported through emergency response initiatives and communication infrastructure, indicates how collaboration can transform risk ecosystems by allowing swifter distress reporting and more organized rescue response (World Bank, 2019). However, there still exist unequal integration, and its effectiveness relies on sustained financing, political commitment and interoperable communications.

These lessons are manifested in inland waters and coastal frameworks. For example, the Djibouti Code of Conduct emphasizes on the awareness of maritime domain as well as sharing of information highlighting on how networked governance architecture can improve enforcement. This is an insight which offers proper applicability to transboundary lakes characterized by mobile fishing fleets and smuggling routes (IMO, 2023b). Nonetheless, inland adaptation demands more than concepts for borrowing; it demands institutional embedding in the commissions of the lake, fisheries enforcement units, customs authorities, and local structures of governance. Where those linkages are feeble, coordination remains episodic rather than systematic.

Political Economy Incentives and Compliance Legitimacy: Why Rules are Evaded

According to the fourth finding, maritime insecurity along the Great Lakes is connected to political economy incentives and the perceived legitimacy of enforcement. The blue economy is not merely technical agenda for development; it is a distributive area governed by rents, livelihoods, and authority and market structures. In instances where there are arbitrary enforcement, exclusionary or corrupt practices, compliance becomes an avenue for social contestation and normalization of rules evasion becomes the order of the day. This finding is in accordance with broader argument that governance outcomes rely solely on the interaction

between rules, local incentives and legitimacy, more so in instances where livelihoods are precarious and the presence of the state is uneven (Obura, 2020).

In fisheries, unlicensed harvesting, cross-border sales and the profitability of illegal gear can outweigh the perceived risks of detection when patrols are done frequently or sanction appears inconsistent. Moreover, in instances where brokers and informal systems dominate value chains, there are instances of uneven application of enforcement mechanisms, yielding perception of unequal treatment. Under such circumstances, it is possible for legal frameworks to fail simply not because parties are “non-compliant” but because, the incentive ecosystem make compliance very expensive, while institutions for governance cannot guarantee credible and fair enforcement and equitable sharing of benefits. This is a major challenge more so to the Great Lakes region of Africa which encompasses blue economy. The initiatives for sustainability demand not only rules but also transition which is compatible to livelihoods such as support for the alternatives streams of incomes, systems for community co-management, and credible protection from enforcement predatory mechanisms (Obura, 2020, FAO, 2023).

Importantly, dynamics of political economy also shapes transport safety. Overloading of vessels, bypassing safety requirements and informal docking can be motivated by market pressure (cost maximization, passenger demand, and competition) together with feeble inspection. Without fair and credible predictable enforcement, safety rules can be regarded as optional cost instead of obligatory standards. This fourth finding therefore ascertain that enforcement must go hand in hand with incentive restricting; which includes factors such as compliance which must be made both economically viable and enforceable, and supported by not only the capacity of inspection and sanctions, but also realistic operational alternatives for transport operators and shoreline communities (World Bank, 2019; IMO, 2023s).

Knowledge and Data Infrastructure: The Invisible Constraint

In this fifth finding, weak data infrastructure and knowledge silently challenge governance, even in instances where institutional reforms and legal framework exist. Effective blue economy governance and maritime security require reliable data on dhow registration, incidents of enforcement, patterns of accidents, hotspots of illegal activities and fish stocks. Yet, inland ecosystems always lack day-to-day systems of reporting, shared incident taxonomies across borders and an interoperable database. These thwarts evidenced based patrol planning, performance evaluation and resource allocation. It also encourages politicised narratives, for example, claims of enforcement success or failure that is not easy to verify, thereby challenging accountability.

In this scenario, monitoring, legal frameworks that require reporting and standardised inspection regimes cannot yield results when systems of data are not available or fragmented. United Nations Conference on Trade and Development (UNCTAD), in its analysis of maritime governance, emphasises that the implementation and safety outcomes are challenged where states cannot assess risks systematically and monitor compliance (UNCTAD, 2022). For example, for Lake Victoria, investing in safety infrastructure and communication indicates the value of strengthening systems of reporting ecosystems, such as emergency coordination, radio systems, and improved incident response networks (World Bank, 2019). Yet, the evidence indicates that improvements in data are not institutionalised uniformly across the Great Lakes region. Fisheries enforcement data, for example, always remain scattered across agencies, and this undermines the ability to build credible regional pictures of Illegal, Unregulated, and Unreported (IUU) fishing networks, shifting hotspots and repeat offenders.

Cross-Case Interpretation: Why Similar Laws Produce Different Outcomes

From the foregoing, the evidence adduced shows that legal density does not play an equal standing to governance effectiveness. Where there is higher normative adherence and stronger enforcement integration, always through regional bodies and harmonized protocols, states are more likely to thwart Illegal, Unregulated, and Unregistered (IUU) fishing and improve safety practices (LVBC, 2021; LVFO, 2021). In instances where the capacity of the institution remains limited and data system feeble, legal commitment are expressed in strategies and plans but at the end fail to shift behavior (UNCTAD, 2022). The Great Lakes therefore, is a reflection of common governance patterns with regards to maritime security. Major variables are not as to whether there exist legal instruments, but whether they are enshrouded in coherent institutions capable of coordinating legitimacy-building, enforcement, and evidence-based adaptations (Tanaka, 2019; Bueger, 2015).

This framework-driven interpretation gives a clarification on the nexus between blue economy and maritime security. Challenges of security, for example Illegal, Unregistered, and Unregulated (IUU) fishing thwart benefits of blue economy by challenging investments, eroding sustainability, and increasing vulnerabilities of livelihoods. Simultaneously, strategies for blue economy that gives priority to growth without governance, extending exploitation and transport volumes without strong safety and enforcement systems, can inadvertently intensify security. Sustainable Development Goals (SDG-14) provides for important normative reference point which balances, livelihoods, conversations and sustainability goals, but as a soft-law instrument. The impact of this relies solely on the capacity for domestic implementation and measurable indicators (United Nations, 2023; Organization for Economic Co-operation and Development (OECD), 2024). This implies that policy and law must be shaped as governance chains, not isolated commitments. That is, from harmonized norms to empowered institutions, to legitimacy and incentive alignment, to integrated operations, to data-driven learning.

From the study, the conclusion can be deduced from the available evidence. First, the Great Lakes region is administered through functional legal pluralism in which a plethora of legal regimes coexist, but limited domestication and mandate overlap reducing normative coherence (Tanaka, 2019). Second, challenges of capacity, such as inspection regimes, patrol assets, adjudication, and training, are the most immediate stumbling blocks to translating legal frameworks into reduced insecurity (UNCTAD, 2022). Third, enforcement integration is the most efficient pathway to improved outcomes; where collaborative operations and sharing of information exist, there is improved governance (Bueger, 2015; LVFO, 2021). Fourth, there is persistence maritime insecurity partly because of political economy incentives reward evasion and thwarts compliance legitimacy, more so, where livelihoods are precarious and enforcement is seen as uneven (Obura, 2020). Fifth, weak data environment limit risk targeting, adaptive governance and accountability, turning legal commitments into aspirations which are difficult to evaluate (World Bank, 2019).

Conclusion

This study has demonstrated that the Great Lakes region of Africa is a clear example of a paradox of robust legal framework coexisting with recurring maritime insecurity and dismal performance of blue economy outcomes. Although regional and international legal frameworks

offer a comprehensive normative guidance, their effectiveness is contingent upon the capacity of the domestic enforcement, sustained regional cooperation and institutional coherence. The findings underscore that legal pluralism, when not properly managed, can water down accountability and thwarts compliance instead of enhancing governance. By expounding on the sustainable blue economy and maritime security analysis to inland transboundary waters, this study has made contributions to broader discourse on global maritime governance and sustainable development. It exemplifies that inland aquatic ecosystem demand tailored legal instruments and proper models of enforcement instead of wholesale transportation of ocean-centric regimes.

The study has also clearly demonstrated how the Great Lakes in African regions play critical role as both avenue for strategic resource and zone of vulnerability. They are source of transport, livelihoods, energy, food security, and ecological services to millions of people living in East and Central Africa. At the same time, the experience unsurmountable pressure from Illegal, Unreported, and Unregulated (IUU) fishing, piracy-like incidents, pollution, cross-border smuggling, and other effects of climate change. These setbacks thwart both sustainable blue economy and maritime security.

International and regional legal frameworks are made available to counter some of these threats. Regional and international instruments for example the East African Community (EAC) fisheries and transport protocols, the Lake Tanganyika Convention, the Lake Victoria Basin Commission (LVBC) agreements, and broader African Union strategies offer a foundation for collaboration. Similarly, international bodies for example, the United Nations Convention on the Law of the Sea (UNCLOS), the biodiversity treaties, and the FAO code of conduct for responsible fisheries offer principles for governance. Yet, the findings of this study is clear that, these frameworks are weakly enforced, fragmented, and inconsistently integrated into local and national law practices. Other setbacks which further constrains the effectiveness of such principles include inadequate surveillance, overlapping institutional mandates, and the capacity of monitoring and limited cross-border information sharing.

At the same time, the full potential of the Great Lakes region in Africa has not been fully realized. Without proper and robust coherent governance and maritime security, chances for sustainable development in eco-tourism, fisheries, renewable energy, and regional trade, risk being challenged by among other factors conflict, depletion of resources and insecurity. This underscores the urgency for a harmonized legal institutions and instruments, linking maritime security with larger sustainable development goals.

Recommendations

This study highlights several critical measures necessary for achieving a sustainable blue economy and enhancing maritime security across the Great Lakes region. First and foremost, it is essential to harmonize transport, fisheries, and security laws across the region. This alignment will ensure consistency in legal systems and promote the effective domestication of international instruments, such as the FAO Code of Conduct for Responsible Fisheries, to facilitate their practical application to inland water bodies. Furthermore, creating a robust regional legal framework tailored to the unique context of inland lakes drawing from existing oceanic regimes but adapted to local needs is vital for governing these resources effectively.

There is a pressing need for stakeholders to invest in joint patrols and shared surveillance technologies, including low-cost community-based mobile reporting platforms. It is imperative to clarify the roles and mandates of national ministries, lake commissions, and security agencies to minimize duplication and conflicts of jurisdiction. Additionally, expanding training programs for coast guard units, fisheries inspectors, and judicial officers will enhance enforcement capabilities and support effective dispute resolution. Establishing a regional incident data-sharing platform will also allow stakeholders to monitor illegal, unreported, and unregulated (IUU) fishing, security incidents, and smuggling, fostering a more coordinated response among affected parties.

To alleviate the pressure on already exploited fisheries, alternative livelihoods such as sustainable agriculture, aquaculture, and eco-tourism should be promoted. Equitable benefit-sharing mechanisms must be put in place to ensure that shoreline communities and small-scale fishers are not marginalized by large-scale blue economy projects. Integrating climate-smart measures, such as pollution control, ecosystem restoration, and invasive species management into all blue economy activities is also crucial for maintaining the health of these vital resources.

Leveraging regional and international partnerships will be key to enhancing governance in the Great Lakes region. Collaborations with organizations like the United Nations Development Program (UNDP), United Nations Environment Program (UNEP), Food and Agriculture Organization (FAO), and the World Bank (WB) can provide essential financial and technical support. Engaging private sectors and civil society in co-management of fisheries, environmental protection, and transport safety will further strengthen efforts toward a sustainable blue economy. Ultimately, the strategic implication is clear: reframing inland waters as integral components of national security strategies will elevate freshwater marine security and embed sustainable blue economy objectives within the broader agenda for regional integration.

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