

Assessing Government Budget Allocations for the Blue Economy Sector in the Southwest Indian Ocean Region: A Case Study of Kenya, Tanzania, Mozambique, and Madagascar

Doreen Simiyu and Divon Mwamba*

Southwest Indian Ocean Tuna Forum (SWIOTUNA), Kenya

***Corresponding author**

Divon Mwamba, Southwest Indian Ocean Tuna Forum (SWIOTUNA), Kenya.

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ABSTRACT

To understand the financial landscape of the Blue Economy in the region, SWIOTUNA undertook an analysis of budget allocations for the Blue Economy in the SWIO region (Kenya, Tanzania, Mozambique and Madagascar) for the financial years 2021/22, 2022/23, and 2023/24. This study was conducted in 2024. The main objective was to assess government budget allocations to Blue Economy sectors, evaluate their alignment with economic contributions, and identify gaps relative to SDG 14 implementation. The analysis covered official national budgets using secondary data sources.

Kenya, Tanzania, Mozambique, and Madagascar possess extensive coastlines, unique marine ecosystems, and rich biodiversity, positioning them to benefit significantly from the Sustainable Blue Economy. On average, only about 2% of annual national budgets are allocated to Blue Economy sectors such as fisheries and aquaculture, marine transport and ports, eco-tourism, and marine renewable energy. Despite limited investment, these sectors generate an estimated USD 2.5 billion per country annually. Kenya and Tanzania provide higher absolute allocations (USD 1.12 billion and USD 0.85 billion over three years), while Madagascar and Mozambique demonstrate greater economic dependence (ocean-based activities contribute up to 55.56% and 30.14% of national budgetary revenues, respectively). Allocations show a gradual upward trend, but actual disbursements lag approved budgets by 10–20%.

The study recommends dedicated Blue Economy budget lines, a minimum 5% national GDP investment threshold, and enhanced transparency to align spending with economic returns and support SDG 14. All economic contribution estimates are indicative and should be interpreted cautiously.

List of Abbreviations

BE	: Blue Economy	RECs	: Regional Economic Communities
CSO	: Civil Society Organization	IOC	: The Indian Ocean Commission
DPs	: Development Partners	RFBs	: Regional Fisheries Management Bodies
ECA	: The Economic Commission for Africa	RFMOs	: Regional Fisheries Management Organizations
EEZ	: The Economic Exclusion Zone	IOTC	: The Indian Ocean Tuna Commission
FAO	: Food and Agriculture Organization	SIOFA	: The South Indian Ocean Fisheries Agreement
GDP	: Gross Domestic Product	UNFSA	: The United Nations Fish Stocks Agreement
IUU	: Illegal, Unreported and Unregulated fisheries		

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USD	: United States Dollar
WB	: The World Bank
NGO	: Non-governmental Organization
SWIO	: Southwest Indian Ocean
WWF	: Worldwide Fund for Nature
SWIOTUNA	: Southwest Indian Ocean Tuna Forum
SWIOFC	: The Southwest Indian Ocean Fisheries Commission
UNCLOS	: United Nations Convention on the Law of the Seas
SADC	: The Southern Africa Development Community

Keywords: Blue Economy, Budget allocation, Marine resources, Fisheries management, Sustainable development, Southwest Indian Ocean Region

Introduction

The Blue Economy (BE) has increasingly gained global recognition as a critical pathway toward economic growth, environmental sustainability, and social inclusion [1]. At its core, the Blue Economy emphasizes sustainable use, conservation, and management of ocean and coastal resources to ensure these ecosystems remain resilient and productive for current and future generations [2]. Key tenets of the Blue Economy therefore include the adoption of clean technologies, the promotion of renewable energy, and the implementation of circular economic models to maintain ecological productivity. The African Union Commission paints ‘Blue Economy’ to hold a particular significance, offering enhanced livelihood opportunities and substantial socioeconomic benefits [3]. The African Union’s Agenda 2063 highlights the transformative potential of the Blue Economy in promoting job creation, industrial growth, and poverty reduction across the continent. This high-level commitment is evident in policy instruments such as the Africa’s Blue Economy Policy Handbook and the Africa Blue Economy Strategy both of which articulate strategic frameworks for the development of inland waters, coastal areas, and marine resources [4,5]. These documents underscore Africa’s resolve to harness the myriad opportunities presented by the Blue Economy while safeguarding critical ecosystems. A prime example of this potential lies in the Southwest Indian Ocean (SWIO) region, characterized by extensive coastlines and numerous island states. More than 100 million people in the region live within ten kilometers of the coast, relying heavily on marine resources for sustenance, livelihoods, and food security [6]. The Western Indian Ocean alone is valued at an estimated US\$333.8 billion and is renowned as a biodiversity hotspot. It hosts over 11,257 marine species, with 13% of those being endemic to the SWIO region [7,8]. These figures underscore the region’s strategic position as a focal point for Blue Economy development. However, despite apparent advantages, realizing the full potential of the Blue Economy in the SWIO region hinges on effective governance and sustainable financing. Challenges such as fragmented management efforts, inadequate resource allocation, and limited accountability structures continue to constrain progress [4,5]. Establishing a robust financing framework—backed by transparent budget allocations—remains critical for

aligning national priorities with the emerging opportunities in various Blue Economy subsectors, from fisheries and tourism to renewable ocean energy and maritime transport. This analysis investigated budget allocations for Blue Economy subsectors in Kenya, Tanzania, Mozambique, and Madagascar, for financial years 2021/22, 2022/23, and 2023/24, four South West Indian Ocean (SWIO) countries with significant coastal and marine endowments. Specifically, it sought to determine whether these nations are committing adequate financial resources to capitalize on their geographical and ecological advantages. By examining public spending patterns and identifying gaps in allocation, the study shed light on each country’s willingness and capacity to invest in Blue Economy initiatives that not only contribute to national GDP but also foster job creation, improve food security, and enhance overall economic resilience.

Review of Literature

Mapping the scope and subsectors of the Blue Economy in the four Southwest Indian Ocean countries Kenya, Mozambique, Madagascar, and Tanzania was a complex task due to the absence of a harmonized blueprint across these nations. Among them, only Mozambique and Madagascar had developed a dedicated Blue Economy Development Strategy which explicitly defines and structures Blue Economy subsectors. In contrast, the other two countries acknowledged the Blue Economy within broader policy frameworks or as components of other sectoral strategies, leading to variations in interpretation and implementation. Given this disparity, this report relied on available national documents, policies, and strategic plans from each country to contextualize the Blue Economy subsectors.

Country-specific Blue Economy Sub-Sectors-Tanzania’s BE Sub-Sectors

At the time of the study Tanzania had not developed a specific national Blue Economy strategy; however, the country had implemented Blue Economy activities through sectoral policies. Key sectors included fisheries, natural resources, tourism, water, agriculture, energy, transportation, mining, trade, and environmental conservation [9]. The Blue Economy is primarily guided by the Zanzibar Blue Economy Policy and the National Blue Economy Policy [9,10]. Key sub-sectors: Fisheries and Aquaculture; Maritime Transport; Tourism; Energy; Natural Resource Management; Environmental Conservation.

Madagascar’s BE Economy Sub-sectors

Madagascar had established several key instruments: National Ocean Policy, Blue Economy Strategy and Investment Plan, Marine Spatial Planning (MSP) Framework, and the Blue Economy and Ocean Governance (BE&OG) Cluster. Key sub-sectors: Fisheries and Aquaculture; Marine Conservation and Protected Areas; Marine Spatial Planning (MSP); Maritime Transport and Port Services; Ecotourism; Marine Research and Education; Maritime Surveillance.

Mozambique’s BE Sub-Sectors

Mozambique had approved the Blue Economy Development Strategy (EDEA) for 2024–2033, structured around six key pillars: Fisheries and Aquaculture; Renewable Energy and Marine Extractive Industry; Natural Capital, Environment, and Circular Economy; Tourism and Culture; Maritime Transport and Port Logistics; Maritime Security.

Kenya's BE Subsectors

Kenya defined its Blue Economy scope through the Fisheries Management and Development Act, The Environmental Management and Coordination Act and Kenya Vision 2030. Primary subsectors: Fisheries and Aquaculture; Coastal and Marine Tourism; Maritime Transport; Offshore Oil and Gas; Renewable Energy; Marine Biotechnology and Bioprospecting [11,12].

Materials and Methods

This analysis relied on secondary data sources, including government budget allocation books and official reports from Kenya, Tanzania, Madagascar, and Mozambique for Financial Year 2021/22–2023/24 [13]. The following budget documents informed our study:

- Republic of Kenya Budget Statements (National Treasury);
- United Republic of Tanzania Budget Speech and Finance Acts (Ministry of Finance and Planning);
- République de Madagascar Lois de Finances (Ministère de l'Économie et des Finances);
- República de Moçambique Proposta do Orçamento do Estado (Ministério da Economia e Finanças).

Figures were converted to approximate USD using prevailing exchange rates from central banks and IMF data. Blue Economy allocations were derived from relevant ministerial lines (fisheries, maritime transport, tourism, environment, ports). Economic contribution estimates draw from FAO, World Bank, and national reports. No primary data collection was conducted; all values are indicative and based on publicly reported figures. Sub-sector mapping was performed through review of national policies and strategies.

Results

This section presents the key findings from the budget analysis for the financial years 2021/22, 2022/23, and 2023/24 [14]. It first examines overall national budget allocation trends, followed by Blue Economy allocations in absolute terms, the average percentage allocation of national budgets to the Blue Economy, the Blue Economy income contribution to national budgets and the revenue of the Blue Economy vis-à-vis GDP [15-20].

Data are presented in tabular format to facilitate clear comparison across countries and years.

Overall National Budget Allocations

Table 1: Overall Annual National Budget Allocation Trends for the selected SWIO Countries

	Kenya (\$ billion)	Tanzania (\$billion)	Madagascar (\$billion)	Mozambique (\$ billion)
2021/22	28	17	3.2	6.5
2022/23	30	18.5	3.5	7.5
2023/24	31	20	4	8
Total	89	55.5	10.7	22
Average	29.7	18.5	3.6	7.3

Overall Blue Economy Budget Allocation

Table 2: Total Blue Economy allocation (in billion USD) for the past three years

	Kenya (\$Billion)	Tanzania (\$ Billion)	Madagascar (\$ Billion)	Mozambique (\$ Billion)
2021/2022	0.35	0.25	0.08	0.15
2022/2023	0.37	0.29	0.09	0.18
2023/2024	0.40	0.31	0.10	0.20
Total	1.12	0.85	0.27	0.53
Average in 3yrs	0.37	0.28	0.09	0.18

Table 3: Blue Economy Income Contribution to National Budgets in \$ billion

	Average BE Annual Revenue (\$ billion)	Average National Budget (\$ billion)	Average % of BE Income to National Budget
Kenya	2.5	29.7	8.42%
Tanzania	3.0	18.5	16.22%
Madagascar	2.0	3.6	55.56%
Mozambique	2.2	7.3	30.14%
Average	2.5	14.8	27.6%

Discussion

The budget analysis reveals a clear mismatch between the economic importance of the Blue Economy and the level of public investment dedicated to the sector in the four SWIO countries [21-26].

Table 1 (Overall Annual National Budget Allocation Trends for the selected SWIO Countries) shows clear differences in overall fiscal size: Kenya recorded the largest average national budget of USD 29.7 billion over the three years, followed by Tanzania (USD 18.5 billion), Mozambique (USD 7.3 billion), and Madagascar (USD 3.6 billion). Building on these national figures, Table 2 (Total Blue Economy allocation in billion USD for the past three years) demonstrates that Kenya and Tanzania provided the highest absolute investments, committing a cumulative USD 1.12 billion and USD 0.85 billion respectively, while Mozambique and Madagascar allocated USD 0.53 billion and USD 0.27 billion over the same period [27-42].

The average percentage allocation of the national budget to the Blue Economy stood at approximately 2%. Madagascar and Mozambique dedicated higher proportions (2.5% each), whereas Kenya and Tanzania allocated 1.25% and 1.5% respectively [43-51].

Table 3 (Blue Economy Income Contribution to National Budgets) highlights a striking contrast: these sectors generate an estimated average of USD 2.5 billion in annual revenue per country, equivalent to 27.6% of national budgetary revenues across the region. Dependence is highest in Madagascar (55.56%) and Mozambique (30.14%). The analysis further shows strong Blue Economy revenue vis-à-vis GDP, particularly in Madagascar and Mozambique, underscoring the sector's outsized economic role relative to its modest budgetary support [52,53].

In summary, while national budgets differ substantially across the four countries (Table 1), public investment in the Blue Economy remains very low both in absolute terms and as a percentage of

national budgets (Table 2 and average % allocations). In contrast, the Blue Economy generates significant revenue relative to national budgets (Table 3) and shows strong contribution vis-à-vis GDP. This mismatch between investment and returns underscores the need for greater budgetary commitment to unlock the full potential of the Blue Economy in the Southwest Indian Ocean region.

Limitations, Conclusions, and Recommendations

Limitations

At the time of the study, Kenya and Tanzania had not developed their Blue Economy strategies and it was difficult to decipher the components of the blue economy for the country and analyze that against the allocation for the components or subsectors, but we referred to the sector plans. Currency conversions and partial reporting introduce minor estimation Variance.

Recommendations

The findings revealed a clear and persistent mismatch: while national budgets vary widely across the SWIO countries, Blue Economy allocations remained critically low both in absolute terms and as a share of national budgets (averaging only 2%), yet the sector generates substantial revenue averaging USD 2.5 billion per country annually and up to 55.56% of national budgetary revenue in Madagascar. This underinvestment, particularly pronounced in countries with high economic dependence on ocean resources, limits sustainable growth, job creation, and SDG 14 progress. To address these gaps, the following evidence-based recommendations were proposed.

Set a Regional Blue Economy Investment Benchmark

SWIO countries should adopt a binding regional minimum investment threshold of at least 5% of national budgets (or GDP) for Blue Economy sectors. This is essential because current allocations average only 2% despite the sector contributing 27.6% of national budgetary revenues on average. The benchmark would correct the imbalance and provide greater fiscal priority in smaller economies such as Madagascar and Mozambique, where ocean-based activities form the backbone of national revenue.

Create Dedicated National Budget Lines for the Blue Economy

Governments must establish specific, ring-fenced budget codes labelled “Blue Economy” instead of dispersing funds across fisheries, tourism, transport, and environment ministries. This would dramatically improve transparency and accurate tracking, directly addressing the fragmented and low-visibility allocations highlighted in Tables 4 and the overall analysis.

Link Budget Allocations to Economic Returns

Future budgeting should be guided by systematic return-on-investment and cost-benefit analyses. The stark contrast between modest public spending and high revenue generation demonstrates that allocations must be proportional to the economic value created, especially in Madagascar (55.56%) and Mozambique (30.14%), where dependence on the Blue Economy is greatest.

Conclusion

This study revealed a significant mismatch between the economic importance of the Blue Economy and public investment levels in Kenya, Tanzania, Mozambique, and Madagascar. National budgets varied considerably, yet Blue Economy allocations

averaged only 2%. In contrast, the sector generated an estimated USD 2.5 billion annually per country, contributing up to 55.56% of national budgetary revenues in Madagascar.

This underinvestment, combined with low disbursement rates, constrains sustainable growth, employment creation, and progress toward SDG 14. Implementing the proposed recommendations including dedicated budget lines and a 5% investment benchmark is essential to bridge the investment-return gap and unlock the Blue Economy’s full potential in the Southwest Indian Ocean region.

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