

THE UNITED REPUBLIC OF TANZANIA VICE PRESIDENT'S OFFICE



FOREWORD

Countries around the world are at different levels of Marine Spatial Planning (MSP) development. This diversity is influenced by resource availability and governance systems. Since there is no onesize-fits-all model, effective MSP strategies vary across regions due to diverse geopolitical, social, and environmental conditions, as well as maritime activities.

The United Republic of Tanzania (URT) has extensive experience with integrated coastal zone management, with Tanzania Mainland launching the National Integrated Coastal Management Strategy in 2003, and Zanzibar developing its Integrated Coastal Zone Management Strategy in 2009.

However, due to the increasing recognition of the value and importance of developing MSP for the utilization of Marine and Freshwater resources, the URT initiated MSP processes in 2019 and completed the scoping phase in June 2023. This phase was made possible by the collaborative efforts from the government, led by the Vice President's Office and the Ministry of Blue Economy and Fisheries in Zanzibar with technical support from The Nature Conservancy. Similar spatial interventions have been done for freshwater bodies in Lake Tanganyika Freshwater Atlas and Lake Victoria initiatives.

The use of MSP supports Tanzania's 2021 Environmental Policy, which clearly recognizes the vast marine and freshwater resources. The development of MSP guidelines for URT provides direction for the national-level Ocean Governance Policy framework, the development of which is critical in framing the development of MSP guidelines.

It is my expectation that this tool will guide the URT in the development of MSP to best utilize resources by different sectors. I urge all users of these guidelines to make effective to safeguard our environment and the well-being of the present and future generations.

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ACKNOWLEDGEMENT

This guideline for the development of Marine Spatial Planning (MSP) in the United Republic of Tanzania (URT) builds on the inputs, experiences and lessons learned through the engagement of the Government officials from respective sectors in the context of sustainable management and utilization of marine/maritime spatial planning processes in the URT. This MSP Guideline has specifically been being developed by national experts from the sector ministries, research and training institutions, public and private sectors, development partners and civil societies under the coordination of the Vice President's Office and the Ministry of Blue Economy and Fisheries in Zanzibar.

I would like to acknowledge the process of developing this guideline which involved close engagement and collaboration by senior Government officials and technical assistants from the European Union. A very special thanks to staff working in aquaculture, biotechnology, conservation, fisheries, defense, energy, insurance, law, research, tourism, transport, ports, security and rescue, public and private companies and NGOs for their constant support and diversity of contributions and inputs to this guideline. I also acknowledge the support and commitment of Development Partners for their interest in the best utilization of marine and freshwater resources in URT.

This guide would not have been possible without the impressive participatory process that has accompanied it. All activities organized by sectors were co-financed by the Vice President's Office and the Sector Ministries involved in blue economy in URT and RGZ.

I look forward to continued collaboration by all partners in the next phase of developing the MSP for URT.

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1 INTRODUCTION

1.1 Background

1.1.1 Marine and Fresh water Resources

The United Republic of Tanzania (Mainland and Zanzibar) is a coastal state located in the region of the Western Indian Ocean. Positioned in Equatorial East Africa, it is situated just south of the Equator, within the geographical coordinates of 1°00'–11°45' S latitude and 29°21'– 40°25'E longitude. Tanzania's total land area measures 945,040 km², with 881,000 km² on the mainland and 2,650 km² on the islands of Unguja and Pemba and 53 small islets.

The country boasts an abundance of water bodies, both large and small, enriching its landscape. These include major lakes, a diverse river system, numerous wetlands, and a picturesque coastline that stretches for 1,424 km from the northern border with Kenya to the southern border with Mozambique. The territorial sea covers an impressive 64,000 km², and an Exclusive Economic Zone (EEZ) spanning 200 nautical miles, encompassing a vast area of 223,000 km².

Tanzania boasts a wealth of inland water bodies, including the East African Great Lakes. Lake Victoria, the second-largest freshwater body globally, covers 68,800 km², with Tanzania owning 51% of its shores. Lake Tanganyika, the world's second deepest and longest freshwater lake, spans 32,900 km². Lake Nyasa adds to the country's aquatic beauty. This natural splendor and ecological diversity make Tanzania a captivating destination for both locals and visitors.

Marine and freshwater bodies in the country offer immense potential for sustainable development and prosperity through blue economy pathway. By tapping into the vast resources of marine and freshwater environments, Tanzania can foster various industries such as fisheries, aquaculture, tourism, maritime transportation, and renewable energy. The responsible and strategic management of these aquatic resources not only promotes economic growth but also supports ecological balance and the well-being of communities that depend on them.

However, the blue economy resources of the URT face numerous threats and challenges due to a combination of natural and human factors. These challenges include illegal, unregulated, and unreported fishing, pollution, climate change impacts, decline of commercially important species, resource-user conflicts, post-harvest losses, and dependency on capture fisheries for livelihoods.

To address these issues effectively, Tanzania must adopt a comprehensive and adaptive approach that includes sustainable resource management, policy reforms, capacity building, and international cooperation. Emphasizing sustainable marine and freshwater planning, zoning, and environmental impact assessments can help strike a balance between economic development and environmental conservation while ensuring social well-being.

1.1.2 Marine and Freshwater Spatial Planning global context

Countries around the world have diverse levels of Marine Spatial Planning development, influenced by resource availability and governance systems. Since there's no one-size-fits-all model, effective MSP strategies vary across regions. Different geopolitical, social, and environmental conditions, as well as maritime activities, contribute to this diversity. Planning

cultures also play a role, with some countries focusing on specific zones and activities, while others prioritize principles and criteria.

1.1.3 Marine and Freshwater Spatial Planning Regional Context

In the Western Indian Ocean (WIO) region, the Nairobi Convention of which URT is a party, has been working on MSP as way of enhancing ocean governance by among others establishment of marine spatial planning technical working group, integrated into various projects. The efforts aim to enhance regional cooperation in defining marine spatial planning that suits the needs of WIO countries.

1.1.4 Marine Spatial Planning in the context of Blue Economy in United Republic of Tanzania

According to the United Republic of Tanzania (URT), Marine Spatial Planning is a participatory process that involves analyzing and allocating the spatial and temporal distribution of human activities in **marine** and **freshwater** areas to achieve ecological, economic, and social objectives. It aims to ensure sustainable and integrated management of these aquatic environments by considering various factors such as biodiversity conservation, resource utilization, climate change adaptation, and stakeholder engagement. The goal is to strike a balance between development and conservation to maximize the benefits of these valuable natural resources while minimizing negative impacts on the environment and communities. The URT will implement context-specific and flexible approaches for MSP in its case. Collaboration and knowledge exchange with other countries will facilitate tailored MSP strategies, promoting sustainable marine and freshwater resource utilization.

1.1.5 Initiatives toward development of MSP in the URT

1.1.5.1 Current Status.

The URT initiated MSP processes and has completed the scoping study, "the state of marine spatial planning in Tanzania" in June 2023 which has set a ground for full MSP development process in marine environment. Moreover, there has been development related to MSP in fresh water bodies, such as the Lake Tanganyika Freshwater Atlas and Lake Victoria initiatives. However, inclusive scoping freshwater analysis is recommended using other Area Based Management Tools existing in the country (MSP Scooping Report, 2023).

1.1.5.2 Existing Policy, Legal and Institutional Framework

The URT already has an existing policy framework in place that provides guidance on the protection of marine ecosystems as well as the development and management of specific blue economy sectors. The Revolutionary Government of Zanzibar's Blue Economy Policy, as well as the Tanzania Mainland's National Blue Economy Policy and its implementation Strategy provide a room for the development of MSP as a management tool towards sustainable blue economy.

Existence of Office responsible for Environment in the Mainland and the Ministry responsible for Blue Economy and Fisheries in the Revolutionary Government of Zanzibar facilitate coordination of pre-planning and development of the MSP within area of jurisdiction. However, for effective coordination, existence of mechanism that would serve as the central coordinating body MSP under EEZ is paramount. There is also existence of sectoral based legal provision to support development and implementation of MSP. However, there is pressing need for overarching regulatory framework focusing on MSP implementation.

1.1.6 Benefits and Significance of MSP

Marine Spatial Planning (MSP) in the United Republic of Tanzania offers numerous environmental, economic, and social benefits. By identifying ecologically important areas, it promotes conservation efforts and efficient marine pollution control. Integrating biodiversity conservation goals ensures nature preservation, while allocating spaces for conservation measures protects vital ecosystems. MSP promotes conservation of threatened and endangered species. MSP also mitigates human impacts and fosters climate resilience. Economically, it boosts investor confidence, optimizes resource utilization, and minimizes conflicts. Socially, MSP encourages community participation, transparency in decision-making, and preservation of marine cultural heritage and spiritual values.

1.2 Objectives of the Guidelines

The goal of these guidelines is to guide the development and implementation of MSP which will ensure sustainable utilization of marine and freshwater resources while safeguarding biodiversity, ecosystems, and the well-being of communities in URT.

1.3 Rationale

The recent government initiatives to accelerate economic growth through, among others, blue economy agenda is likely to stimulate unsustainable use of valuable marine and fresh water resources. This could result into adverse social, environmental and economic impacts.

To ensure sustainable use of marine and fresh water resources which supports the blue economy in the country, an integrated management approach is of paramount importance as it address pressures on resources. Marine Spatial Plans is a practical means that will assist the government of the United Republic of Tanzania to rationally organize its marine and fresh water space in order to strike a balance between development demands and conservation of ecosystems.

This guideline therefore, has been developed to provide guidance on development and implementation of MSP in the country which will facilitate the government to achieve national and international objectives and commitments, as set out in Tanzania Vision 2025, Zanzibar Vision 2050, Nairobi convention for the development, protection, management of marine and coastal environment of the WIO, IOC UNESCO Steps of MSP planning, Africa Integrated Maritime Strategy 2050 and Agenda 2030 on sustainable development goals.

1.4 The scope and process of developing the guidelines

1.4.1 Geographical Scope

MSP in the URT shall encompass the marine area, from the coastline to the Exclusive Economic Zone (EEZ), which includes internal waters, the territorial sea, and the EEZ taking into consideration the jurisdictional mandates of Tanzania mainland and Zanzibar as defined by the Territorial Sea and Exclusive Economic Zone Act of 1989. The MSP will be expanded to include

the Extended Continental Shelf (ECS) if made available to Tanzania. In the side of fresh waters, the MSP shall include the water catchment area of the fresh water bodies (Lakes, Rivers and Valley/streams). Furthermore, the administrative boundaries of relevant local government authorities will be considered so as to ensure that MSP is well coordinated from the National level to the village level where most of maritime activities are conducted

1.4.2 Sectoral Scope

The future development of the marine and freshwater space involves a comprehensive framework that considers various in-scope activities. For the purpose of this guideline, the activities to be considered will be those prioritized under respective national blue economy policies and strategies as well as other emerging sectors.

1.5 Approach

The development of this guideline was participatory in nature engaging subject matter experts from government institutions, academic and research institutions and non-state actors. The development process involved a review of the national, regional and global MSP - related guidelines and studies which provided information about the development of conceptual design of the MSP guideline. A stakeholder consultation workshop was conducted for purpose of gaining more inputs from stakeholders to improve the guideline.

2 MSP DEVELOPMENT PROCESS IN TANZANIA

The development of MSP in Tanzania will follow stapes outlined in Figure 1.



Figure 1. Summary of steps.

2.1 Step 1: Initiation of MSP process

2.1.1 The Responsible Authority for Initiation of Marine Spatial Planning in the URT

The government of the United Republic of Tanzania has designated the Vice President Office of Tanzania Mainland and Ministry of Blue Economy and Fisheries of Revolutionary Government of Zanzibar as lead institutions for coordinating Marine Spatial Planning in the United Republic of Tanzania.

2.1.2 Initiation of Marine Spatial Planning

The Minister responsible for MSP in Tanzania Mainland and Zanzibar shall declare the planning area in relevance to their area of jurisdiction that will provide details of spatial boundaries (internal water, territorial water, and EEZ), description of the area to undertake MSP and the essence for selecting particular areas.

2.2 Step 2: Pre-planning

Once the area for conducting MSP has been well defined under approved Government Notes, the ministry responsible for MSP shall continue with preparation of teams which will be responsible for coordination, planning, supervision

2.2.1 Establishment of the MSP committee

The ministries responsible for MSP shall form a Steering Committee comprising of representatives from sectoral ministries, private sectors and community from Mainland and Zanzibar with direct or indirect interest with Tanzania marine and freshwater space. The committee shall meet at regular intervals, and will have the following roles and responsibilities.

- i. To oversee and guide the preparation of the MSP;
- ii. To manage the technical team responsible for the practical preparation of the MSP;
- iii. To recommend approval of the final drafts of the MSP;
- iv. Initiate the need for reviewing the MSP; and;
- v. Search for funding and support from different sources.

The office responsible for MSP shall establish Technical Committee with members from sectoral ministries, private sectors and community from Mainland and Zanzibar that will be responsible for the preparation of the MSP Document in collaboration with sub technical team working in Local Government Authority.

Technical Committee shall have the following responsibilities:

- i. Data collection, analysis and presentation;
- ii. Preparation of MSP;
- iii. Validating the plans to the stakeholder; and;
- iv. Facilitate approval of the plans.

2.2.2 Development of stakeholder Participation Mechanism

Stakeholder refers to any individual or group, or organization that are or will be affected by MSP process. Successful guideline development and implementation requires engagement of multiple stakeholder groups potentially affected by guideline. The Technical committees shall do the following's:

i. Conduct a stakeholder mapping and analysis based on interest and influence;

- ii. Identify Stakeholder and categorize in sector;
- iii. Extended interest-influence matrix;
- iv. Engage Matrix for planning activities;
- v. Prepare Matrix for categorizing stakeholder commitment;
- vi. Evaluate outcomes of stakeholder engagement activities;
- vii. Evaluate roles, rights, responsibilities and returns;

2.2.3 Stakeholder groups

MSP stakeholders will be identified through mapping and analysis and may include the following groups:

- Government decisions maker at various levels including; Ministries, state agencies; municipalities and local government;
- ii. Private Sectors;
- iii. Civil Society Organizations (CSOs);
- iv. Non-Government Organizations (NGOs)
- v. Academic and Research institutes;
- vi. Development Partners (DPs);
- vii. Community Based Organizations (CBOs)
- viii. Community.

2.2.4 Stakeholder engagement

In order to promote sustainable development in an effective manner, it is essential that all relevant stakeholders are engaged at an appropriate stage in the preparation of MSP. Stakeholder should be involved in the following stages:

- i. All activities of Pre-planning and planning;
- ii. Development and implementation of MSP plan; and;
- iii. Monitoring and Evaluation of MSP plan.

2.2.5 Stakeholder participation

Communicating with stakeholders may be vital for MSP process and could prevent running into obstacles down the road. The Steering committees shall:

- i. mobilize and sensitize stakeholders through consultative meeting(s) / workshop(s) with the view to create or raise awareness;
- ii. solicit commitment and elaborate roles, mandates and ownership of each stakeholder prior to actual implementation;
- iii. convene a meeting(s) / workshop(s) of all stakeholders in the area to be affected by the processes to seek their comments and contributions; and;
- iv. send information via emails, website or other public platforms.

2.3 Step 3: Situation Analysis

This step involves information and data collection, collation and analysis to inform the current situation. This includes: -

2.3.1 Mapping of biological, ecological, cultural, human activities and other important aspects

2.3.1.1 Ecosystem (biological and ecological) aspects

The technical committee should conduct an evaluation of the available ecosystems in a given water body to understand their ecological health, biodiversity, and vulnerabilities. This assessment encompasses the following:

- i. Data collection, collation, and analysis for the identification of critical habitats, sensitive areas, and species of conservation concern. The data collection should cover aspects such as water parameters, species richness, habitat structure, species diversity, human activities, and environmental stressors.
- ii. Input the data into a database, ensuring that all relevant information is included for a holistic understanding of the water body's environmental dynamics.
- iii. Analyze ecological health of identified ecosystems by evaluating factors such as water quality, nutrient levels, and the presence of human activities, and environmental stressors.
- iv. Conduct a detailed examination of the biodiversity within the water body by identifying and cataloging species of flora and fauna, including those that are rare, threatened, or of conservation importance.
 - a. The examination should explicitly pinpoint critical habitats, such as mangroves, seagrass meadows, and coral reefs, which play essential roles in supporting marine biodiversity and coastal protection and their connectivity.

- b. Sensitive areas within the water body, including nursery grounds for marine species and spawning grounds for commercially important fish, should also be identified to inform management and conservation strategies.
- c. The evaluation of species that are endangered, threatened, or crucial for the overall ecosystem's stability should be done to emphasize the need for their protection.

2.3.1.2 Oceanographic/limnological and other physical environmental features

Oceanographic/limnological and other physical environmental features play a crucial role in shaping marine and freshwater ecosystems and influencing various processes within a given water body. Variables may include bathymetry, currents, etc.

2.3.1.3 Ocean cultural, Resource Use and Human Activities (social and economic aspects)

The technical committee should conduct an inventory and maps of current human activities in a given area. This should include fishing, aquaculture, tourism and recreation, shipping, energy exploration, extractive industries (sand and gravel extraction, mining, oil and gas), infrastructure development (such as ports, marinas, and coastal protection structures) and other factors (population distribution) that have an impact on the marine and freshwater environment. This section should also include cultural issues as they shape people's interactions with marine and freshwater environments, their values, and perspectives on resource use and conservation. Integrating culture into MSP not only enhances the plan's social acceptability but also bolsters its resilience against future challenges.

2.3.2 Conflicts and compatibility assessment

The assessment of conflict and compatibility between human uses and nature is a complex issue that requires a comprehensive approach. The technical committee should conduct an assessment of human conflicts involving the utilization of ocean space. This assessment indicates the current and potential conflict and compatibility existing among human uses and between humans and their environment (both use-use and use-nature). After assessing and mapping the different aspects of the socio-ecological, and biological system and the human race on Marine and freshwater resources, the conflict and compatibility assessment can easily be identified by overlapping spatial data.

The effective measure of conflict and compatibility needs to set out the guiding principle, criteria, and issues to be considered as indicated below.

i. Establish a Matrix of value compatibility analysis that shows the compatibility, direction, and intensity of the relationship (synergy/conflict potential) between different maritime uses that can be classified into the category of two or three value layers with Low (L), moderate (M) or high (H) values or other methods of best practice. These Compatibility matrices have been used to examine the potential spatial conflicts and incompatibilities between maritime users, beneficiaries, marine stakeholders (military defense, offshore energy, oil and gas, community, and investors) and during MSP processes.

- Mapping (a participatory approach) the area using spatial analysis tools in a GIS environment; if the marine and terrestrial areas are not completely mapped might be a source of conflict among users, the use of spatial analytic tools assists in the identification of conflict in marine and terrestrial environment and provide the way for conflict resolve and measure the compatibility.
- iii. Consider the Multiple Criteria Analysis (e.g., ecological, economic, and socialcultural) that ranks the intensity of the conflicts of detected activities based on specific criteria. The conflicts with higher intensity need to be assessed with priority in the framework of MSP.
- iv. Various stakeholder engagement and key stakeholder participation across the level and scale both nationally and internationally including transboundary neighbors.
- V. Identify interactions with other users and their interest; determine the key interactions of particular interest to marine spatial planning on Sea Fisheries, Aquaculture, Oil and Gas, Recreational Boating Activity, Shipping/boating, etc.
- vi. Consider conducting SEA, which describes environmental issues set out the socialculture and ecological values and propose the mitigation measure on the existing potential impacts and possible future emerging impacts that helps to resolve the conflict and measure the compatibility.
- vii. Undertake the problem analysis and draw the problem tree that measures cause of existing or potential conflicts and effects, this will help to determine the root cause of conflict, ways to resolve and future trend of marine uses among human uses and the nature
- viii. Assess how current procedures, policies and practices are addressing conflicts and disputes and make recommendations for strategies and procedures to mitigate the conflict and determine the compatibility
 - ix. Analysis of Time variation factor determining the possibility of conflict that may arise; A potential spatial conflict may not arise if two human uses occur in different time periods. For example, an important area for whale watching during the summer could be used for other uses when whales are absent.

2.3.3 Analysis of legal and Policy Framework

An institutional conducting the MSP shall consider existing policy, legal and institutional framework relevant to MSP nationally and internationally to facilitate development MSP management action addressing the identified gaps.

2.3.4 Data Management

2.3.4.1 Data requirements and data quality

Given that MSP relies on a wide range of data to inform decision-making, types of data needed for the MSP process should include the following:

- i. Spatial data, including geographic information, maps, and remote sensing data for clear representation of the marine and coastal environment, enabling better visualization and analysis.
- ii. Ecological data, including ecosystems, biodiversity, habitat types, and species distributions for understanding the ecological health and dynamics of the area under consideration.
- Socio-economic data, including information on human activities, resource use, population distribution, and livelihoods, help in understanding the human dimensions and interactions with a given environment.
- iv. Environmental data, such as water quality parameters, temperature, currents, and sediment composition, provide insights into the physical and chemical characteristics of a given environment.
- v. Information on existing laws, regulations, and policies related to MSP are necessary to ensure that MSP is aligned with existing governance frameworks.
- vi. Information about different stakeholders, including their interests, preferences, and perspectives, is vital for engaging and involving them in the MSP process.
- vii. Any other relevant information related to MSP

When confronted with data gaps and uncertainties in above, the following strategies should be employed to ensure smooth development of MSP.

- i. Identifying areas where data gaps exist: MSPs must conduct a comprehensive audit of their data sources and systems to pinpoint missing or incomplete information.
- ii. Leveraging predictive analytics: Predictive analytics can help MSPs fill data gaps by extrapolating information from existing datasets. By using sophisticated algorithms, MSPs

can make informed predictions and estimate missing values, thereby enhancing the accuracy of their insights.

- iii. Employing data interpolation techniques: MSP can employ data interpolation techniques, such as linear or spline interpolation to estimate missing values within a dataset. These methods can provide reasonably accurate approximations based on the available data points.
- iv. Collaborating with clients and partners: MSPs should actively engage with their clients and partners to obtain missing data and clarify uncertainties. Establishing clear communication channels and collaboration frameworks can significantly improve data completeness and reliability.
- v. Implementing scenario analysis: In scenarios where uncertainties cannot be entirely eliminated, MSPs can perform scenario analysis to understand potential outcomes under different conditions.

2.3.4.2 Data Quality

Collected data should: undergo validation and verification processes to ensure their accuracy; comprehensive and complete, covering all relevant aspects of a given water body and human activities as incomplete assessments can potentially flawed decisions; timely to reflect current conditions and trends; be consistent and standardized to allow proper integration and analysis across different datasets and sources; and be relevant to the specific objectives and scope of the MSP process.

Collecting only necessary data helps to avoid information overload and focuses efforts on essential aspects. Data sources and methodologies used for data collection and analysis should be transparent and well-documented, allowing stakeholders to understand and validate the information.

2.3.4.3 Data Access

The lead agency shall establish standardized data protocols and a national-level marine and fresh water spatial data clearing mechanism (centralized data system) to allow for the sharing of data between different institutions and organizations. MSP shall **promote open data policies** that facilitate data sharing and access among stakeholders, while respecting privacy and confidentiality concerns. This should involve the establishment of online platforms or data portals facilitate accessibility and availability of relevant data to all stakeholders involved in the MSP process. The

data should be stored in user-friendly formats to make it accessible to non-technical stakeholders and the public.

2.3.4.4 Data storage and security

Data should be stored in sector-based and centralized systems data bases and the responsible sectors should implement data backup procedures to prevent data loss and ensure data security.

2.4 Step 4: Analysis of Future Conditions

This involves projections of future scenarios based on certain propositions. Analysis of future conditions should be based under the following scenarios.

i. A trend scenario illustrating how the MSP area will look if present conditions continue without new management interventions;

Conduct a multi-stakeholder workshop for a trend scenario, which portrays how the MSP area will evolve if current conditions persist without any new management interventions. It assumes that existing human activities, resource utilization, and environmental trends will continue without significant changes.

ii. Alternative spatial sea use scenarios illustrating how the management area might look when human activities are redistributed based on new goals and objectives; and

Conduct a multi-stakeholder workshop to creating alternative spatial sea use scenarios, which often requires careful consideration of various factors, including ecological, economic, social, and political aspects.

iii. A preferred scenario that provides the basis for identifying and selecting management measures in the spatial management plan

Conduct a multi-stakeholder to select a preferred scenario based on alternative spatial sea use scenarios for spatial management plans, which are typically based on a combination of ecological, social, and economic considerations. The goal is to strike a balance between conservation, sustainable use of resources, and meeting the needs of different stakeholders.

2.5 Step 5: MSP Management Plan Preparation, Adoption and Approval

The MSP management plan is supposed to adhere to the following process for preparation, adoption and acceptance.

2.5.1 Identifying management measure and action

To develop an effective MSP management plan, a comprehensive approach that accounts for both spatial and temporal aspects of management measures is essential. The aim is to achieve sustainable and efficient resource management in both marine and freshwater environments. The

MSP management plan must identify a range of tailored management measures on prioritizes and emerging sectors that will be implemented for sustainable use of marine and fresh water resources.

2.5.2 **Provision of incentives**

The MSP management plan should encourage provision of incentives to promote sustainable use of the resources that will cover but not limited to economic incentives, tradable permits, eco-certification and conservation agreement.

2.5.3 Developing criteria for Selecting Marine Spatial Management Measures

In considering both marine and freshwater management measures, the MSP management plan should establish clear and consistent criteria for selecting specific actions specified as:

- i. **Ecological conservation Criteria:** Assess the ecological sensitivity of marine and freshwater habitats, species, and ecosystems, accounting for their unique characteristics.
- ii. **Economic Criteria:** Consider the economic value and significance of marine and freshwater resources, evaluating their contributions to local livelihoods and national economies.
- iii. **Social Criteria:** Take into consideration the social acceptability of management measures in marine and freshwater areas, addressing the needs and aspirations of local communities.
- iv. **Feasibility Criteria:** Evaluate the practicality and feasibility of implementing specific measures, considering technical capacity and available resources in both marine and freshwater environments

2.5.4 Consideration of the characteristic of the good criteria

Selection of good criteria must be guided by the following feature:

- i. The implications of the management action on other interests and for the Marine Area objectives as a whole;
- ii. The capacity to mitigate any negative consequences of the management action;
- iii. The regulatory measures needed in order to implement and enforce the management action;
- iv. The financial cost of the management action and the feasibility of securing financing;
- v. The anticipated time scale of the management action;
- vi. The acceptability of the management action to stakeholders and the public;
- vii. The likely degree of success of the action; and
- viii. Compatibility with other management actions and regulatory regimes.

2.5.5 Developing a Zoning Plan

2.5.5.1 Zoning

Refer to the partitioning procedure of targeted area in portions to meet ecological, economic and social goals/ and objectives for environmental and economic sustainability.

Zoning should be done carefully based on scientific findings. The Zoning Plan should consider the following:

2.5.5.2 Scoping

Scope of zoned areas both marine and freshwater areas, recognizing their distinct characteristics and uses of each ecosystem. The following should be considered under this section.

- i. Man power mobilization: Expertise (Man brains) from (GIS, Cartographers, Oceanographers, Limnologist, fisheries, Marine scientists, archeologists, Economists, petrologists, geologists, Botanists, Environmental engineers, Ecologist, Risk assessment specialists, Seafarers, Local/ indigenous people etc.)
- ii. Materials mobilization: Oceanographic map, Geological map, Ecological map, and jurisdiction map which are all geo referenced. Research materials / documents which are supportive to the information outlined in those maps.
- iii. Spatial data: List of spatial data to be considered before zoning: Biodiversity, Fisheries, Mining, Oil and Gas including seabed mining, Shipping, Energy, Tourism and Recreational, military base, Constructions, Scientific research, Plane emergence zone Submarine installations, Maritime and Underwater cultural heritage

2.5.5.3 Zoning approach

Zoning approach should consider the following principles.

- i. Stakeholder Engagement: Ensure active involvement and input from all relevant stakeholders, including representatives from marine and freshwater communities, in the process of identifying suitable zones for various uses.
- ii. Ecosystem-Based Approach: Prioritize an ecosystem-based approach to delineate and safeguard critical habitats, encompassing marine, estuarine, and freshwater ecosystems, with the aim of promoting their conservation and sustainable use.
- iii. Multi-Use Zones: Consider opportunities for multi-use zones in both marine and freshwater environments, allowing compatible activities to coexist and supporting integrated management.
- iv. Flexible Zoning: Incorporate adaptive management strategies, allowing adjustments to the zoning plan based on new information and changing circumstances in both marine and freshwater areas.
- v. Implement adaptive management approach involving regular monitoring, evaluation and adjustment of the MSP on new information based on the changing circumstances.
- vi. Establish timelines for periodic reviews and updates of the MSP to account for the evolving priorities and knowledge.
- vii. Objective zoning: Should consider division such as development, conservation, and multiuse, to determine the highest best use which could include conservation or human use.

2.5.6 Institutional Implementation Arrangements

For effective implementation of the MSP management plan in both marine and freshwater environments should be involved:

- i. Clear Governance Structure: Establish a clear governance structure (responsible authority) that defines the roles and responsibilities of relevant government agencies, local authorities, and stakeholders involved in the implementation process for both marine and freshwater areas.
- ii. Coordination Mechanisms: Ensure effective coordination and collaboration among different stakeholders to foster a unified approach to MSP implementation, addressing both marine and freshwater concerns.
- iii. Technical team: Responsible authority should formulate a technical team from within or outsourcing from different sector including Researching institutes (UDSM-IMS, SUA, TAFIRI), NGOs WWF, IUCN, NC, TPDC, government agencies, sectors, and others of significant importance.
- iv. Capacity Building: Provide necessary training and capacity-building initiatives to enhance the skills and knowledge of individuals and institutions responsible for implementing the MSP in both marine and freshwater environments.
- v. Raise public awareness about MSP, its objectives and the importance of sustainable marine management.
- vi. Consider cross-border implications and collaborate with neighboring countries especially where there are transboundary related issues.
- vii. Resource Allocation: Allocate sufficient financial and human resources at different stages of MSP planning/ implementation stages and to all implementing entities.

2.5.7 Strategic Environmental Assessment (SEA)

This should involve conducting a Strategic Environmental Assessment (SEA) to assess the potential environmental impacts of the proposed management measures and the MSP as a whole. SEA should aim:

- i. To identify and evaluate potential positive and negative environmental effects of the plan.
- ii. To develop mitigation measures to address adverse impacts and enhance positive outcomes.
- iii. To involve stakeholders in the SEA process to incorporate their concerns and expertise.
- iv. Use the findings of the SEA to inform decision-making and improve the overall MSP management plan.
- v. SEA should be conducted as directed in the Environmental Management Act cap 191.

2.5.8 Stakeholder Validation

Under this section the following activities should be done.

- i. Seek feedback and recommendations from stakeholders to incorporate diverse perspectives into the MSP Management Plan.
- i. Thoroughly review the draft MSP Management Plan with the working group and marine and limnologist experts.
- ii. Consider inputs from stakeholder consultations and technical reviews during the revision process.

- iii. Address any conflicts, discrepancies, or gaps in the plan to enhance its coherence and effectiveness.
- iv. Ensure the plan aligns with existing national policies, strategies, and legal frameworks, making adjustments if necessary for coherence and compliance.

2.5.9 MSP Management Plan Approval

The following should be done under this section.

- i. Finalize the draft MSP Management Plan and submit it for approval to relevant government authorities.
- ii. Seek approval from responsible governing bodies

2.5.10 MSP Management Plan Gazettement

The Gazettement of MSP management plan is supposed to adhere to the following process.

2.5.10.1 Expert Review and Recommendations

The following should be done.

- i. Report should undergo a comprehensive technical review by a panel of experts in risk assessment, marine science, environmental impact assessment and climate change, and spatial planning and economist.
- ii. Experts required to evaluate the plan's scientific rigor, feasibility, and environmental soundness.
- iii. Document should be refined to ensure it aligns with the best available scientific knowledge and meets international standards.

2.5.10.2 Approval by Responsible High-level Authorities

MSP management plan reviewed by expert should be submitted to high-level authorities for approval.

The involvement of high-level authorities is crucial for endorsing the plan and providing the necessary political support for its successful implementation.

2.5.10.3 Gazettement

Once approved, the MSP Management Plan Should be officially gazette. This step gives the MSP Management Plan legal recognition and authority. Gazettement ensures that the provisions of the plan become legally binding and enforceable, making it a critical step in the implementation process.

2.6 Step 6: MSP Management Plan Implementation and Enforcement

2.6.1 Implementation and Enforcement

This will be carried out subsequent to the approval of Spatial Management Plan "Blue Print". Implementation is the most important step of the MSP process as it is the action phase and normally continues throughout the existence of MSP programs. For effective and sustainability of the plan the inter-ministerial Council/Committee/Group will coordinate/lead the implementation of the

MSP plan. However, the responsible ministries and agencies will retain their mandate in terms of regulatory power taking into consideration the relevant MSP. Furthermore, in case of the transboundary MSP communication between governing bodies among neighboring countries must be structured in compliance with relevant conventions and agreement to facilitate sharing of knowledge, experience and data on MSP.

Depending on the nature of the management actions set out in the MSP plan the approach/modalities that will be required to implement and ensure compliance with spatial management plan are:

- i. Establish MSP regulations based on relevant laws that will guide implementation of the MSP plan.
- ii. Establish governing bodies that will oversee the MSP coordination in areas where Mainland Tanzania and Zanzibar have adjacent jurisdiction.
- iii. Establish of common governing body or strengthen existing body that deals with management of EEZ.
- iv. Responsible governing body should develop annual action plan to implement MSP plan.
- v. Communicate the provisions of the MSP plan across government and to stakeholders, including permissions and restrictions introduced by spatial allocations, and the precise coordinates of those allocations.
- vi. Build capacity of the competent authorities and maritime sectors at all levels is necessary.
- vii. Mobilize resources for the implementation of the plan.
- viii. Develop mechanism for provision of incentives in development opportunities identified in the MSP plan.
- ix. Carrying out surveillance and inspections to determine compliance and taking necessary enforcement action against violation of the law.
- x. Carrying out the Environment Impact Assessment (EIA) for the development projects to identify possible environmental and social impacts.

2.6.2 Monitoring and evaluation

To assess the extent to which the Marine Spatial Plan (MSP) is successful in meeting its objectives, desired results, and being adapted for the next planning cycle, it needs to be monitored and periodically evaluated.

Monitoring and evaluation should take following consideration

2.6.2.1 Developing a monitoring and evaluation system

This section provides guidance on monitoring and evaluation system for the management and enforcement of MSP such as the Monitoring Plan, Planned Reviews, Evaluation Plan, Performance review meetings, Planned Milestone Reviews, Performance Evaluation Plan, Performance Reporting Plan, Internal Reporting Plan, and External Reporting Plan Furthermore, this section will provide information on periodic reviews, assessments and evaluations of the effectiveness, efficiency, impact and sustainability.

2.6.2.2 Revision and adapting of MSP

MSP should be revised regularly to allow for new knowledge and data about marine and fresh water areas and to take account of changing priorities for the protection and use of the resources. The governing body for the development and management of MSP will carry out any necessary analysis to support the proposed amendments and propose suitable changes to the plan.

3 RESOURCE MOBILIZATION AND CAPACITY DEVELOPMENT

3.1 Resource mobilization

Financing for developing and implementing MSP will involve resource mobilization and funds raising from internal and external sources. The major internal source is Government's General Budget while external sources include the Private Sector, International Finance Institutions, Bilateral Funds and Global Funds.

3.1.1 Internal Sources

Under this section the following can be considered.

- i. MSP requires the participation of various stakeholders representing the multiple sectors operating in any given planning area.
- ii. At a theoretical level, early and effective stakeholder participation is a fundamental aspect of MSP.
- iii. The Government has to put in place mechanisms for ensuring sustainable resources for the implementation of the MSP.
- iv. The MSP will be implemented by Sectors with funding from Government through internal and external revenues
- v. The sources of funds should also include marine-specific revenues such as polluter pays principle.

3.1.2 External Sources

External sources of funds on the implementation of MSP will include:

- i. Loans and aids from development partners.
- ii. Joint ventures between the Government and the Private Sector (PPP).
- iii. The private sector through foreign direct investment, investment for profit, company capital and profits from investment in business.
- iv. International Finance Institutions, Bilateral Funds and Global Fund

3.2 Capacity development

Capacity development is the process whereby people, organizations and society as a whole release, strengthen, create, adapt and maintain capacity over time in order to achieve development results.

In MSP, capacity need for implementation can be grouped in three levels: individual, organizational and enabling environment, which altogether are interdependent and mutually reinforcing.

3.2.1 Individual

- i. The government shall analyze the existing human capital capacity to identify gaps
- ii. The Government will enhance skills among individual workers and government officials through training and experiences,
- iii. The government will also improve motivation and incentives for its staff.

3.2.2 Sectors/Organizations

- i. The government will improve the organizational performance through effective strategies, plans, rules and regulations, partnerships, leadership, organizational politics and power structures.
- ii. It will also strengthen organizational systems, processes, roles and responsibilities.
- iii. MSP implementation related Sectors/organizations will be capacitated to solicit the funds from external sources so as to have sustainable source of funds for MSP implementation in the country

3.2.3 Enabling environment

- i. The Government will improve policy and legal frameworks so as to enhance MSP governance and operationalization. This will also include developing or reviewing such policy and legal frameworks to consider resource mobilization approaches for MSP.
- ii. The government shall provide material resources and capacity to enable MSP and its implementation.