THE UNITED REPUBLIC OF TANZANIA

NATIONAL ACTION PLAN FOR CONSERVATION OF RESILIENT CORAL REEFS (NAPCRCR)

2026 – 2031

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FOREWORD

Globally, coral reefs are threatened mainly by anthropogenic activities, climate change, and natural disasters. Since Tanzania does not exist in isolation, its coral reefs have been declining over time due to unsustainable fishing practices, including the use of blasts, seine and drag nets, oil spills, the release of chemical wastes, persistent plastic waste/marine debris, and sedimentation from agricultural activities, dredging and coastal development.

Currently, the coastal and marine environments are important for development due to substantial but untapped potential for blue economy investments from sectors such as coastal tourism, agriculture, mariculture/aquaculture, natural gas exploitation, fisheries, shipping, urban development, manufacturing, renewable energy, transportation, and mining. Economic opportunities emanating from these sectors may, however, affect the well-being of coral reefs and their services if not properly implemented. In this regard, sustainable utilization of coral reef resources is linked to the Government efforts/ commitment in developing blue economy sector (for instance, by developing blue economy policies for the United Republic of Tanzania in 2024 and Zanzibar in 2022) as part of its commitment to the 2030 Agenda for the 17 Sustainable Development Goals (SDGs), most importantly SDG 14 – Life below Water.

The **National Action Plan for Conservation of Resilient Coral Reefs (NAPCRCR)** is aimed at raising awareness and ensuring effective management measures are undertaken to conserve the already declining coral reefs in the United Republic of Tanzania. The NAPCRCR is a conceptual framework for applying conservation and protection approaches to contribute to the well-being and recovery of coral reefs and other critical marine habitats.

The plan consists of six key contextual chapters, outlining a general introduction and background information on coral reef ecosystems, threats/opportunities, and cost-benefit analysis of illegal practices and other practices. Also, the plan covers a comprehensive review of governance, institutional, and legal frameworks. Moreover, it contains the action plans with goals, scope, overall vision and mission, strategic objectives and outcomes. Furthermore, implementation mechanisms, monitoring and evaluation, and review of the action plan are also included.

We finally commend those who made the preparation of this National Action Plan for Conservation of Resilient Coral Reefs (NAPCRCR) possible.

Hon. Dr. Ashatu Kachwamba Kijaji (MP)
Minister for the Ministry of Livestock and Fisheries, Mainland Tanzania.

Hon. Shaaban Ali Othman (MHR)
Minister for the Ministry of Blue Economy and Fisheries, Zanzibar.

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We would particularly thank the Marine Parks and Reserves Unit (MPRU) for the supervision and for leading the process of the preparation of this Plan. Secondly, we appreciate the hard work done by the experts who are part of the National Coral Reef Hub, especially from the Tanzania Coral Reef Task Force (TzCRTF/Network) team for the preparation of the draft plan and the provision of the necessary scientific information. Also, all those who reviewed the early versions of the plan, are acknowledged.

Furthermore, we extend our gratitude to the Global Environmental Fund (GEF) 7 - Coral Reef Rescue Initiatives (CRRI) project for the financial support during the consultation processes and in the plan preparation.

Lastly, we note with satisfaction that the preparation of this National Action Plan for Conservation of Resilient Coral Reefs could not be possible without the cooperation and commitment of wider stakeholder groups who were consulted at different levels and capacities and these include; Ministries, Local Government Authorities, departments, agencies, academic and research institutions, civil society organizations, private sectors, and the coastal communities through their invaluable input and technical support.

We take this opportunity to acknowledge their valuable contributions and efforts, which made possible the preparation of this National Action Plan for Conservation of Resilient Coral Reefs for the United Republic of Tanzania.

Prof. Fiziki Silas Shemdoe
Permanent Secretary, Ministry of Livestock and Fisheries, Mainland Tanzania.

Capt. Hamad Bakar Hamad
Principal Secretary, Ministry of Blue Economy and Fisheries, Zanzibar.

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LIST OF ACRONYMS AND ABBREVIATIONS

BMU	Beach Management Unit
CFMA	Collaborative Fisheries Management Area
CITES	Convention on International Trade in Endangered Species
CMP	Conservation and Management Plan
CMS	Convention on Migratory Species
CSO	Civil Society Organization
DMC	Department of Marine Conservation
DSFA	Deep Sea Fishing Authority
IUCN	International Union for Conservation of Nature
LGA	Local Government Authority
MLF	Ministry of Livestock and Fisheries
MoBEF	Ministry of Blue Economy and Fisheries
MPRU	Marine Parks and Reserves Unit
NAPCRCR	National Action Plan for Conservation of Resilient Coral reefs
NEMC	National Environment Management Council
NGO	Non-Government Organization
NPoA	National Plan of Action
PO RALG	Regional Administration and Local Government
SFC	Shehia Fisheries Committee
SWOT	Strengths, Weaknesses, Opportunities and Threats
TAFIRI	Tanzania Fisheries Research Institute
TFS	Tanzania Forest Services Agency
TPA	Tanzania Ports Authority
USAID	United States Agency for International Development
VLC	Village Liaison Committee
VPO	The Vice President's Office
WIO	Western Indian Ocean
WIOMSA	Western Indian Ocean Marine Science Association
WWF	World Wildlife Fund
ZAFIRI	Zanzibar Fisheries and Marine Resources Research Institute
ZEMA	Zanzibar Environmental Management Authority

EXECUTIVE SUMMARY

The coral reefs are distributed throughout the Tanzanian coast and are estimated to cover about 3,580 km^2. Over 70% of coastal communities depend on coral reef resources as one of the important sources of their livelihoods. Coral reefs support diverse marine ecosystems in Tanzanian waters that include over 500 species of commercially important fish and invertebrates. Despite their importance, over the years, the Tanzania coral reefs have been degraded by anthropogenic, climate change, and natural factors. However, the majority of the reefs are still intact and functionally capable of giving all the expected ecosystem services (biological, ecological, and socio-economic). Currently, the main causes of reef framework destruction include fishing by using drag nets, blast, spear guns, ring nets in shallow waters, and coral mining for lime making. Ocean acidification and coral reef bleaching are also the major climate change related threats to coral reefs.

In order to safeguard services and benefits from coral reefs, it is very important to prevent further degradation and encourage sustainable utilization of coral reefs' resources by setting up appropriate conservation strategies (policies, laws and guidelines). However, this cannot be achieved without an appropriate and functional plan.

The National Action Plan for Conservation of Resilient Coral Reefs (NAPCRCR) was prepared through the consultative processes whereby various stakeholders at all levels were consulted (Ministries, Local Government Authorities, departments, agencies, academic and research institutions, civil society organizations, private sectors, and the coastal communities). The objective of the plan is to ensure the long-term conservation and management of coral reefs in Tanzania, and to develop key issues for intervention. The plan aims to address the barriers and challenges that affect coral reef conservation and inform their management interventions.

The NAPCRCR covers the five years from 2026 - 2031. The plan will address identified issues and threats faced by coral

reefs and their ecosystem. This National Action Plan has six comprehensive chapters where **Chapter One** provides a general introduction and background information on coral reef ecosystems and a brief on the coral reefs status in the country. An analysis of the threats and opportunities and cost-benefit analysis of illegal practices and other practices on the coral reefs ecosystem is also discussed in this chapter. **Chapter Two** provides a comprehensive review of governance, institutional and legal frameworks for the conservation and management of coral reefs in Tanzania. **Chapter Three** highlights the goals, scope, overall vision and mission, strategic objectives and outcomes of the Action plan. **Chapter Four** describes the monitoring, evaluation, learning framework for the action plan. Also included are two annexes that highlights the Monitoring and Evaluation Plan and its proposed budget.

CHAPTER ONE

1. INTRODUCTION

1.1 Coral reefs and their ecosystems

Coral reefs are shallow-water ecosystems that inhabit tropical oceans and consist of reefs made of calcium carbonate, which is secreted mainly by reef-building corals and encrusting macroalgae and can only live within a narrow temperature range from around 16°C to 30°C (IUCN, 2008). They occupy less than 0.1% of the world's ocean floor yet play essential roles throughout marine life, housing high levels of biological diversity as well as providing key ecosystem goods and services such as habitats for fisheries, coastal protection, and appealing environments for tourism (Wild et. al., 2011). They have high productivity and biodiversity and are regarded as keystone ecosystems (Hunter, 1996), providing critical ecological services that extend far beyond their area of coverage.

Coral reefs have a very high level of biological diversity. The small area they occupy is home to about 30% of the marine species described to date (i.e., about 93,000 species out of 274,000 known marine species live in corals (Porter and Tougas, 2001), including 25% of marine fishes (Allsopp et al., 2009). Coral reefs are nearly 400 times richer in species diversity than other ocean areas, which is comparable per square kilometre to large rainforests (Reaka-Kudla, 1997).

1.2 Tanzania Coral Reef Status

Stemming from their ecological importance, coral reefs in Tanzania have great socio-economic importance. They are abundant with a variety of marine organisms thus supporting 70% of artisanal fish production in East Africa as well as being important for commercial fishing (Ngoile and Horrill, 1993; Jiddawi and Öhman, 2002; Wagner, 2004). Previously, a nominal list of over 273 species in 63 genera and 15 families were identified using a timed search method and species diversity could exceed 300 species with sufficient sampling (Obura, 2004). The Faviidae and Acroporidae were the most species-rich families with 66 and 60 species, respectively (Obura, 2004). However, a more recent study has indicated that coral reefs support diverse marine ecosystems that include over 500 species of commercially important fish and invertebrates (Obura et al., 2017).

There are five administrative regions situated along the mainland coast: Tanga, Pwani, Dar es Salaam, Lindi and Mtwara. These regions are further subdivided into districts. The islands of Unguja and Pemba makeup Zanzibar, the other part of the United Republic of Tanzania (URT). The five coastal regions cover about 15 percent of the country's total

land area and are home to approximately 25 percent of the country's population. Over 70% of coastal communities in Tanzania depend on coral reef resources as sources of livelihood (Wagner, 2004).

The Tanzania coral reefs are geographically classified in five main zones by the Tanzania Coral Reef Task Force (TzCRTF). The zones include Tanga (zone 1), Dar es Salaam and Pwani (zone 2), Unguja and Pemba (zone 3), Mafia-Songosongo-Rufiji and Kibiti (zone 4), and Lindi - Mtwara as zone 5 **(Figure 1).**

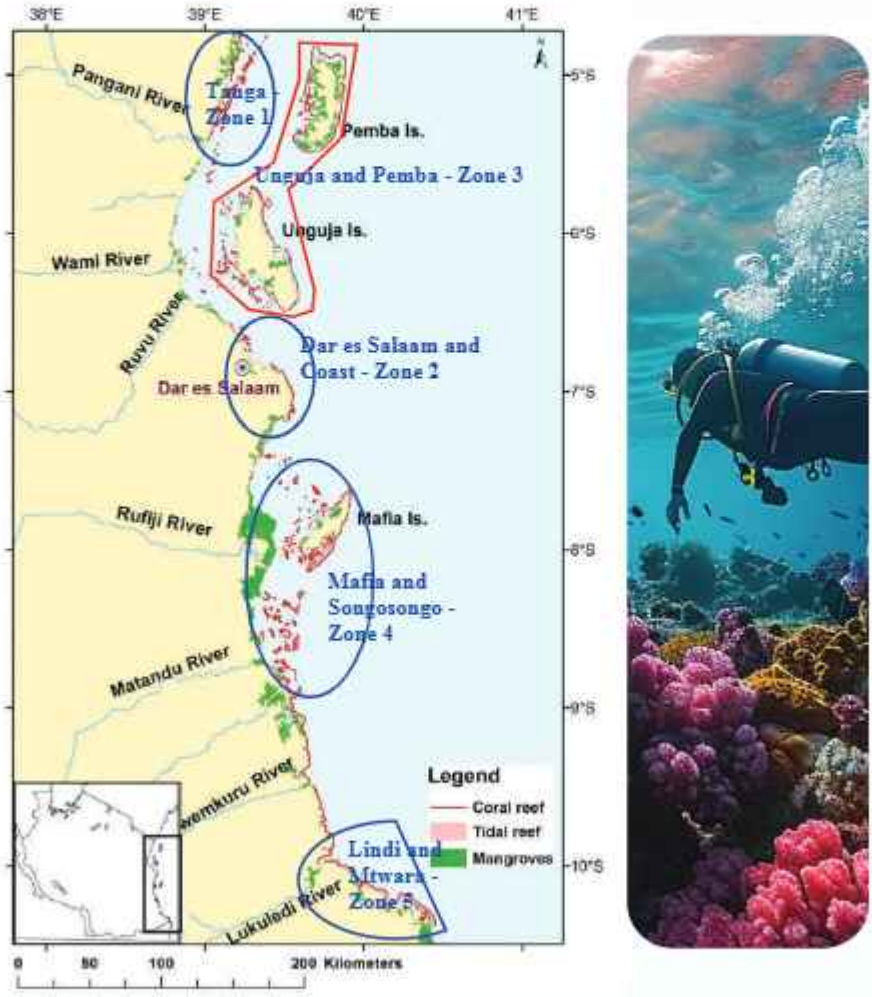

Figure 1: Distribution of Coral Reefs in Tanzania as per five classified Zones (Source: TzCRTF 2018).

The average live hard corals cover in zone 1 was 52.73 ± 4.61%, and indicated a range of 20.8 % ± 3.3 to 64.9 % ± 5.13 (MPRU 2021). The average hard coral cover in zone 2 was 53.86 % ranging from 30.4% ± 8.6 to 69.9% ± 7.6. (MPRU, 2022). Zone 3 had average coral cover of 52.97% ranging from 31.25% at MIMCA to 71.27 at CHABAMCA (WCS, 2023). Zone 4 had an average coral cover of 42.19%, with a range of 18.9% ± 2.8 to 56.2% ± 5. Zone 5 had coral cover ranges from 41.3% to 66.4% (MPRU, 2022).

1.3 Rationale for having the plan

The need for the NAPCRCR for Tanzania is based on the decision by the Western Indian Ocean Coral Reef Task Force (WIO CRTF), which was established in 2002 and endorsed as per decision of the Conference of Parties (CoP 3/2) on the protection of coral reefs and associated ecosystems of the Nairobi Convention in 2004. The WIO CRFT facilitated the establishment of the Tanzania Coral Reef Task Force (TzCRTF) in 2005. The TzCRTF is linked to both the WIO-CRTF and to the International Coral Reef Initiative (ICRI), which developed a global Strategy and Plan of Action (2021-2024), "Turning the Tide for Coral Reefs".

It is from this Plan of Action, that the NAPCRCR adopted the different global and national themes for coral reef conservation and management. The NAPCRCR is an important instrument to implement the National Integrated Coastal Environmental Management Strategy (2025), National Blue Economy Policy (2024), and Marine Park and Reserve Act (1994) by promoting the conservation of the coral reef and its associated ecosystems. This is further aligned with the Kunming Global Biodiversity Framework TARGET 3: which was prepared, prioritizing coral reef management and the need to secure resources to support the conservation and management operations.

Furthermore, the plan of action provides the framework for making reforms needed to bring coral reef considerations into the mainstream and coordinated decision making and planning at all levels. It also provides opportunities for institutional collaborations and partnerships among conservation stakeholders and resource users, including government agencies, local communities, the private sector, and international partners. Lastly it ensures the long-term sustainability of the coral reef ecosystems in Tanzania to move towards sustainable coral reef management and development.

1.4 Opportunities and Threats Facing Coral Reefs

Coral reefs are declining due to a number of threats (Battaglia, 2023; Lin, 2024; Ahmad et al., 2024; Celekli, et al., 2024; Chauka and Nyangoko, 2023; Mbije, 2023). These threats are emanating from anthropogenic factors, climate change impacts, and natural factors (Aldasoro-Said, and Ortiz-Lozano 2021). Different coral species face varying effects. While some show resilience, others are facing extinction if no proper measures are taken. Therefore, a comprehensive analysis of the opportunities and threats confronting coral reefs at multiple scales help to inform a large community in the country

on the need for coordinated efforts to protect and conserve these reefs. Currently the following threats exist on the ground (MPRU 2025).

1.4.1 Threats Facing Coral Reefs

a) **Climate change:** this manifest as rising temperature, floods, sea level rise, acidification, cyclones and storms which cause coral death.

b) **Illegal Fishing:** While blast fishing has decreased, the use of spears, ring nets, poisons, and sand as sinkers are increasing, causing damaging impacts to corals.

c) **Chemicals from agriculture:** The existence of cash and subsistence crops such as cashew nuts in coastal areas coupled with storm water runoff from agricultural fields potentially affect corals.

d) **Pollution:** Domestic waste, sewage, solid plastics, and other solid wastes (for instance in Zanzibar, sewage from Mji Mkongwe is discharging directly into the ocean) affect corals.

e) **Oil spills:** Spills linked to transport and fishing vessels have been observed in Pemba at the Wesha Port and at the Dar es Salaam coast, which were associated with dying of mangroves in the nearby areas.

f) **Anthropogenic activities:** These include coral mining and poaching for lime (whitewash) and foundation building, as reported in Kilwa, Mtwara, and Dar es Salaam. Corals are also used in construction, medicine, and rituals. Construction of gas pipes in Mtwara was associated with land mass falls and seismic waves that potentially could affect corals.

g) **Unsustainable tourism practices:** The need to manage the number of tourists at a particular tourist site (carrying capacity) at any given time, as recently happened at Mnemba Island in Zanzibar.

h) **Coastal development:** Constructions along beaches and waterfronts, for hotels, factories, roads, oil and gas pipelines, and settlements pose a potential threat to corals due to siltation, turbidity, and erosion.

i) **Deforestation of mangroves and destruction of seagrasses:** Survival of corals depends on the management of mangroves and seagrasses. However, illegal mangrove harvesting in areas like Kilwa, Kibiti, and Mtwara, coupled with river diversions, have threatened the ecosystem and also increased brackish water, which has a negative impact on corals.

j) **Inadequate alternative livelihood activities:** The majority of community members in all five zones possess unsophisticated gears unsuitable for deep-sea fishing. This increases fishing in the nearshore and results in overfishing. Additionally, the community requires education to access financial support/services, i.e., loans.

k) **Inadequate awareness on coral-related laws, legislations, regulations:** stakeholders such as community members, judicial sector (offices of IGP, CJ, AG), and law enforcers. This has led to leniency in concluding illegal fishing cases. For example, in blast fishing, the court would require a certificate of evidence from the Government Chemist Laboratory or the relevant authority.

l) **The 'Muhali/nepotism' Culture:** This was identified as a significant problem. For instance, in Tanga, Kibiti, and Kilwa, communities often side with offenders and refrain from reporting or testifying against them. In some cases, elders may pressure reporters to make peace with offenders.

m) **Inadequate inclusion of local community members in coral reef conservation:** It was revealed that participation in coral reef conservation and management happens through networks, including the CFMA and BMUs.

n) **Technology in coral reef conservation:** Currently, little technology is being utilized. There is a need for innovative technology, including binoculars, boats, drones, GPS, and other sophisticated equipment to be used for monitoring and patrol.

o) **Increase in Migration:** People/communities move from one region/district areas to another for fishing and other economic activities. This can be short-term, seasonal, long-term, permanent, or invitations by family members or friendly ties.

p) **Oceanographic factors:** The East African Coastal Current (EACC) is claimed to bring invasive organisms to the Tanzanian waters that directly impact corals via winds, waves, tides and currents.

1.4.2 Opportunities Emanating from Coral Reefs

a) **Biodiversity financial instruments:** To mitigate climate change, healthy corals act as a carbon sink for carbon storage. Accordingly, biodiversity credit financial instruments such as carbon credits can be used to benefit the local and national levels.

b) **Coordinated patrols:** The government and community initiatives at the grassroots, including Community Management Groups (CMG), BMUs, and CFMAs, are actively working to combat illegal fishing practices.

c) **Research:** Tanzania has well-established academic and research institutions that can conduct studies on different aspects of coral reefs.

d) **Four R principals:** Regarding pollution, the four R principles in pollution control include Reduce, Reuse, Recycle, and Recover. These can be utilized by responsible institutions and residents to control and mitigate pollution.

e) **Collaboration and coordination:** Many stakeholders are already working in harmony, including government institutions such as MPRU, parastatals, NGOs, and communities.

f) **Markets availability:** For products from alternative income-generating activities, for example, aquariums, crab fattening, seaweed farming, oyster farming, sea cucumber farming, milkfish farming, prawn farming, fish aquaculture, ornamental shells, and salt production.

g) **Restoration:** In some coastal areas, restoration of corals by communities are ongoing particularly in degraded areas.

h) **Tourism:** Ecotourism along the coast is more developed in Zanzibar, where mainland Tanzania could learn from.

i) **Political will:** Support from political leaders is very high in the conservation of ocean resources, including corals. For example, the President of Tanzania has been actively promoting tourism through various initiatives. Attractive sites and marine life, such as dolphins, coral reefs are available.

j) **Experts:** Tanzania has several experts specialized in coral reef science, who could train and disseminate knowledge to bring about behavioral and social change.

k) **Capacity building:** coral reef resources provide an opportunity for improved capacity in terms of knowledge, personnel/expert and resources.

Table 1: Opportunities and threats facing coral reefs in Tanzania

SN	THREAT	OPPORTUNITY
1	Climate change	Carbon credits
2	Illegal Fishing	Collaborative patrols CMG, BMUs, and CFMAs
3	Chemicals from agriculture	Research
4	Pollution	Use of the 4 R
5	Oil spills	Improved coordination
6	Anthropogenic activities, e.g., coral mining	Research, e.g., traditional medicines and markets
7	Mass tourism and unsustainable tourism practices,	Businesses, e.g. hotels and aquarium development, MPRU interventions
8	Coastal development	Attractions, tourism development businesses, and Government intervention
9	Deforestation of mangroves, destruction of seagrasses, and the use of destructive fishing gear	Research, restoration, and improved coordination using available institutions
10	Lack of alternative livelihood activities	Crab fattening, seaweed farming, oyster farming, sea cucumber farming, milkfish farming, octopus, fish farming, salt production, and beekeeping, businesses and markets for these products exist
11	Inadequate awareness of coral-related regulations	Work LGAs, community development department, MPRU
12	Overlapping mandates and lack of coordination in mangrove management:	MPRU intervention to improve coordination
13	Illegal, unreported, and unregulated fishing	MPRU intervention to improve coordination
14	Lack of institutional clarity in the coral reef	MPRU intervention to improve coordination
15	Conflicting regulations	MPRU intervention to improve coordination
16	Political influence	Political will exist
17	The 'Muhali' Culture	Empowerment programs and Collaborative patrols CMG, BMUs, and CFMAs

18	Inadequate inclusion of local community members in coral reef conservation.	Interventions through women's and youth policies
19	The perception that coral reefs are mere rocks	MPRU awareness intervention programs
20	Technology in coral reef conservation	High need for digital transformation at all levels and MPRU intervention
21	Increase in Migration	Research, business and welfare improvement
22	Oceanographic factors	Research, MPRU improve coordination to international levels

1.5 Cost - Benefit analysis of Illegal fishing and Unsustainable Practices on the Tanzania's Coral Reefs Ecosystems.

Tanzania's coral reefs, spanning approximately 3,500 km², are among the most biodiverse and economically vital ecosystems in the Western Indian Ocean. These reefs support over 30% of the coastal population through fisheries, tourism, and coastal protection, contributing an estimated $525 million annually to the national economy. However, rampant illegal and destructive fishing practices including blast fishing (20.8% prevalence), cyanide use (7.2%), small-mesh nets (14.6%), and coral mining have triggered a 30-50% decline in coral cover and a 40% reduction in fish biomass over the past decade (MPRU 2025).

The consequences extend far beyond ecological degradation. Unsustainable fishing methods sacrifice long-term economic resilience for short-term gains, eroding the very resources that coastal communities depend on. For example, blast fishing alone costs Tanzania an estimated $1.07 billion annually in lost fisheries productivity and habitat destruction. In comparison, reef-related tourism loses $150 million per year due to damage to the ecosystem. Without urgent intervention, these practices pose a significant threat to food security, livelihoods, and Tanzania's ability to adapt to climate change. This analysis quantifies the staggering economic losses of illegal fishing and the transformative benefits of sustainable reef management to inform policy action under Tanzania's National Adaptation Plan (NAP).

1.5.1 Economic Analysis: Losses vs Benefits of Coral Reef Management

Table 2. Annual Losses from Illegal Fishing (3,500 km² Reef Area).

Impact Category	Calculation	Annual Cost
Reef Destruction	$1.8M/km² × 3,500 km²	-$6.3 billion
Blast Fishing Losses	$306,800/km² × 3,500 km²	-$1.07 billion

Tourism Revenue Loss	Fixed estimate	-$150 million
MPA Violation Losses	Fixed estimate	-$230 million
Restoration Costs	$41,400/km² × 3,500 km²	-$144.9 million
Total Annual Losses		**- $13.99 billion**

Table 3. Annual Benefits of Sustainable Management.

Benefit Category	Calculation	Annual Value
Fisheries Production	Fixed estimate	+$525 million
Sustainable Tourism	Fixed estimate	+$15 million
Ecosystem Services	$1.8M/km² × 3,500 km²	+$6.3 billion
MPA Enforcement Savings	Recovered losses	+$230 million
Total Annual Benefits		**+$8.38 billion**

Net Economic Impact:

- **Cost of Inaction: -$13.99 billion/year** (unsustainable practices)
- **Benefit of Conservation: +$8.38 billion/year** (sustainable management)
- **Opportunity Gain: $22.37 billion/year** (potential economic turnaround)

1.5.2 Key Findings

i. Illegal fishing costs Tanzania $14 billion annually, with reef destruction ($6.3B) and blast fishing ($1.07B) as primary drivers, plus $380M in tourism/MPA losses - demanding urgent policy action to protect both ecosystems and coastal livelihoods.

ii. Sustainable reef management could unlock $8.4 billion annually for Tanzania, including $6.3 billion in vital ecosystem services and $540 million in fisheries/tourism income, proving that conservation drives both economic growth and climate resilience while securing coastal livelihoods.

iii. Tanzania faces a $144.9 million/year reef restoration burden - ten times costlier than prevention - proving that investing in protection now through enforcement, education, and sustainable practices is both economically and ecologically imperative to avoid far greater expenses later.

iv. MPAs offer Tanzania a high-return investment, with effective enforcement potentially recovering $230 million annually in lost fisheries and tourism revenue while strengthening coastal resilience and food security, making their expansion a smart economic and ecological priority for sustainable development.

To strengthen Tanzania's National Adaptation Plan (NAP) for coral reef resilience, immediate actions should include a crackdown on blast fishing through naval patrols and community surveillance, potentially saving $1.07 billion annually while redirecting funds to sustainable livelihoods; fostering ecotourism partnerships by certifying reef-friendly operators to recover $150 million in tourism revenue; expanding "no-take" marine reserves to 30% of reefs to boost fish biomass by 40%; leveraging the $22.37 billion cost-benefit analysis to secure climate finance from institutions like the GCF and World Bank; and prioritizing community-led restoration of 500 km² of critical reefs to reduce rehabilitation costs by 85%, ensuring long-term ecological and economic benefits for coastal communities.

In this regard, Tanzania cannot afford illegal fishing. The $14 billion/year in losses equivalent to 5% of GDP dwarfs the short-term profits of destructive practices. By contrast, sustainable management protects $8.4 billion/year in benefits and unlocks a $22 billion economic opportunity. Integrating these insights into Tanzania's NAP will safeguard reefs as engines of climate resilience, food security, and inclusive growth (MPRU 2025).

1.6 Coral reef issues for interventions

Among the coral reef issues for interventions includes:

I. Coral reef bleaching and mortality
II. Blast fishing and other destruction of coral reef environment and all forms of pollution and unsuitable fishing.
III. Inadequate information and education programmes.
IV. Weak/inadequate enforcement of existing legal frameworks.
V. Lack of coral reef resilience/adaptation plan or strategy and inadequate research and monitoring programme.
VI. Inadequate coordination among stakeholders.
VII. Inadequate research and monitoring to address knowledge gaps and understand coral status and their associated biodiversity.
VIII. Lack of financial sustainability for coral reef monitoring and conservation programs.
IX. Insufficient programs and projects leading to alternative livelihoods for coastal communities, particularly the youth and women.

CHAPTER TWO

2. GOVERNANCE, INSTITUTIONAL AND LEGAL FRAMEWORKS

2.1 Management of Coral Reefs in Tanzania

Within the last two decades, coastal management has focused on Integrated Coastal Management (ICM) approaches. The legal frameworks from responsible departments and units from the Mainland and Zanzibar have been formulated with emphasis on community involvement in coral reef conservation. The departments and units have taken a number of measures to stop destructive fishing practices in coral reefs and have also instituted measures to minimize coral reefs damage in all areas of jurisdiction.

Both in the Mainland and Zanzibar, there were several programmes and projects implemented to conserve and manage coral reefs to compliment government efforts. For example, in 1997, the National Environment Management Council (NEMC) developed a project "the Tanzania Coastal Management Partnership (TCMP)", which formulated strategies and guidelines to manage coastal and marine resources including coral reefs.

Management of coral reef environment is to a large extent encompassed in the Fisheries Acts and Regulations and indirectly in other provisions. Thus, the Directors of Fisheries and Marine Conservation have a major responsibility for coral reef conservation. However, on the ground, much conservation attention is given to harvestable resources rather than to the resource base (e.g., coral reefs). Currently, there is no enough budget from the Fisheries Departments (MPRU and Department of Marine Conservation) or Vice President's office (NEMC and ZEMA) specifically targeting conservation of coral reefs.

2.1.1 Institutional framework: defining stakeholders

The institutional framework for coral reef management in mainland Tanzania is multifaceted, integrating governmental organizations, communities, academia and research, and private sector entities.

2.1.2 Government ministries, departments, and agencies

Vice President's Office (VPO) and First Vice President's Office (FVPO Zanzibar) assume the overall responsibility for environmental policies, including coral reef conservation and management. Under the VPO and FVPO, the National Environment Management Council (NEMC) and the Zanzibar Environmental Management Authority regulate investment development. The Ministry of Livestock and Fisheries and the Ministry of Blue Economy, where MPRU and the Department of Marine Conservation are responsible for coral reef management and conservation in the mainland and Zanzibar, respectively.

2.1.3 Local government authorities

- Regional administrations and District Councils implement coral reef policies and engage local communities in conservation practices.
- Village Councils/Shehias are the grassroots structures that empower local governance in managing and protecting coral reef resources through participatory approaches.

2.1.4 Community-based organizations

- Local NGOs engage in awareness-raising, education, and community-led restoration initiatives.
- Community-based management groups facilitate local communities' involvement in coral reef management and sustainable practices.

2.1.5 Research and academic institutions

- Conduct research on coral reef ecosystems, their biodiversity, and restoration techniques.
- Partner with the government and communities to translate research findings into action, facilitating the development and practice of monitoring and evaluation systems by creating frameworks for regular assessment of coral reef health, biodiversity, and management efficiency.

2.1.6 Private sector engagement

- Collaborate with businesses, especially in sectors such as tourism and fisheries, to promote sustainable practices related to coral reefs.
- Encourage corporate social responsibility initiatives focused on coral reef conservation.

2.1.7 International partnerships and collaborations

- Engage with international development partners, and conservation organizations for technical support, funding, and knowledge exchange on coral reef management.
- Participate in regional agreements for coastal and marine resource management.

2.1.8 National Legal and policy frameworks

The legal and policy framework governing coral reefs in Tanzania is multifaceted, encompassing various national laws, policies, and international commitments. There is no specific policy that addresses the unique needs of coral reef ecosystems.

2.1.9 Fisheries Policies

There are several national policies that directly support the conservation of coral reefs. The policies call for the government to strategically participate in the management, protection, and control of fisheries resources, and the conservation of aquatic biodiversity, including coral reefs. The policies include:

- National Fisheries Policy 2015 (Mainland Tanzania)
- Zanzibar Fisheries Policy, 2022
- National Blue Economy Policy 2024 (Mainland Tanzania)
- Zanzibar Blue Economy Policy 2022

Other important policies in Mainland and Zanzibar that have a role in coral reef management include, but are not limited to, the tourism policies, energy policies, water policies, mineral policies, land use planning policies, climate change strategies, environmental policies, aquaculture policies etc.

2.1.10 National Legislations

National acts play an important role in the conservation of coral reefs. These Acts provide the legal framework for the protection and conservation of all aquatic flora and fauna, including coral reefs. Notably, among these acts are those related to fisheries, marine protected areas (MPAs), marine conservation, and environmental regulations. Fisheries Acts and protected area Acts address critical issues such as fisheries management and bycatch, helping minimize the accidental capture of coral reefs in fishing activities.

The Environmental Management Act 2004 (mainland Tanzania) and the Zanzibar Environmental Management Act No. 3 of 2015 play a significant role in the protection of coastal and marine environments. They provide comprehensive environmental protection strategies such as reinforcing measures against pollution, habitat degradation, and unsustainable practices that can adversely impact coral reef habitats and populations.

- The Fisheries Act No. 22 of 2003 (mainland Tanzania)
- Zanzibar Fisheries Act No. 7 of 2010
- National Integrated Coastal Environmental Management Strategy (NICEMS-2025)
- Deep Sea Fisheries Management and Development Act No. 5 of 2020
- The Marine Parks and Reserves Act No. 29 of 1994 (mainland Tanzania)
- Tanzania Fisheries Research Institute Act No 11 of 2016
- Marine Conservation Unit Regulation of 2014

2.1.11 Other Frameworks

Other instruments that support coral reef conservation include:

- Fisheries Master Plan 2021/22 – 2036/37 (mainland Tanzania)
- National Environmental Master Plan for Strategic Interventions 2022 – 2032
- National Biodiversity Strategy and Action Plan 2015 - 2020
- Zanzibar Fisheries Master Plan 2023 - 2038
- NPoA for implementation of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the context of food security and poverty eradication (SSF guidelines)

2.1.12 Global and Regional frameworks

Tanzania is signatory to several regional and international agreements and conventions, especially those related to natural resource management, including coral reef conservation. These frameworks serve as important guidelines and agreements that recognize the significance of protecting these vulnerable species and their habitats. By promoting awareness, implementing conservation measures, and fostering collaboration among nations, these frameworks contribute to the sustainable conservation and management of coral reef populations, ensuring their survival for future generations. These frameworks include:

- Convention on Biological Diversity (1992)
- Convention on Migratory Species of Wild Animals (CMS)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- Nairobi Convention
- Convention on the Law of the Sea (UNCLOS -1982)
- Ramsar Convention

2.2 Proposed Governance of the Action Plan

In the United Republic of Tanzania, different aspects of coral reef management falls under the jurisdiction of various governmental and non-governmental organizations, with governance frameworks and arrangements in place to ensure the sustainable management of these vital marine ecosystem. Government bodies involved include Ministry of Livestock and Fisheries (MLF), Ministry of Blue Economy and Fisheries, Ministry of Natural Resources and Tourism (MNRT), Zanzibar Fisheries Research Institute, Tanzania Fisheries Research Institute (TAFIRI), Tanzania Marine Parks and Reserves Unit (MPRU), Department of Marine Conservation, the National Environment Management Council (NEMC), Zanzibar Environmental Management Authority, Local Government Authorities (LGAs), Research and Academic Institutions, Non-Governmental Organizations (NGOs), Community-Based Organizations (CBOs) and local fishing communities. These government bodies and institutions are also proposed to be part of the Committee steering the action plan as indicated in **Table 4.**

Table 4. Proposed Structural Committee of the National Action Plan for Conservation of Coral Reef

Institution or Category	Description of Position or Expertise	Members
Chair & Co-Chair-2	Manager MPRU & DMC	2
Secretary	Nominated from MPRU and DMC	2
PO-RALG-	Director of Fisheries-TAMISEMI	1
MLF	Assistance Director – FRP & Head FRD	2
MoBEF	Head of Co-Mgt (Oversee all Managers of MCA) and 5 Managers of MCAs	6
MPRU	Head of Conservation MPRU & 4 WICs	5
DFSA	Deputy Director General	1
Research Institutions	ZAFIRI, TAFIRI & Academia	3
Environmental Authority	NEMC & ZEMA	2
MNRT	Representative	1
Other Invited Government –Institution	VPO-DoE	1
Development partners/ NGOs	NGO active on in the field on coral conservation activities	3
TASAC		1
8 LGAs-DFsO and Development committee + 4 Sheha		10
Co-opted Individual Professionals	Professionals with Expertise in Marine Protected Areas, Biodiversity Conservation, Environmental Management and Related Expertise.	6
	Total Members	**46**

Overall, coral reef management in Tanzania involves a multi-stakeholder approach, with collaboration among government agencies, NGOs, research institutions, local communities, and international partners. Effective governance arrangements aim to balance conservation objectives with the socio-economic needs of coastal communities while ensuring the long-term sustainability of coral reef ecosystems. Regular monitoring, enforcement of regulations, community participation, scientific research and provision of alternative means to livelihoods are essential components of coral reef management in Tanzania.

CHAPTER THREE

3. THE PLAN OF ACTION

3.1 Goal

The goal of the National Action Plan for the Conservation of the Resilient Coral Reefs (NAPCRCR) is to ensure the long-term conservation and management of coral reefs in Tanzania and to develop management interventions that will be used as a roadmap for action plan implementation.

3.2 The Scope

The NAPCRCR provides a guide for the long-term conservation and management of resilient coral reefs in Tanzania for the period of 2026-2031. The NAPCRCR covers the coastal and marine waters of the United Republic of Tanzania.

3.3 Overall Vision and Mission

3.3.1 Vision

A resilient and sustainably managed coral reef ecosystem that supports biodiversity, mitigates climate change, and enhances socio-economic well-being.

3.3.2 Mission

To protect, conserve, and restore coral reef ecosystem in Tanzania through science, inclusive governance and sustainable coastal livelihood for future generations

3.4 The National Action Plan for Conservation of Resilience Coral Reefs

The NAPCRCR is the first comprehensive plan integrating coral reefs, livelihood and cross cutting issues. This plan describes implementation mechanisms and reinforces the collaborative roles of relevant sectors and resource users to identify and develop solutions to urgent coral reef challenges. The action plan details the implementation of the strategic objectives, where strategic actions, targets, output indicators, baseline information, means of verification, timeframe for implementation, and responsible institutions are outlined.

3.5 General strategic objective

To ensure the sustainable management, conservation, and restoration of coral reef ecosystems in Tanzania, enhancing their ecological integrity and socio-economic benefits.

3.5.1 Specific strategic objectives and Outcomes

(a) Strategic Objectives

The Plan of Action is based on the identified global, regional, and national issues affecting coral reefs. In order to achieve the mission of this plan, the following strategic objectives and strategic outcomes have been identified:

i) Reduce coral reefs bleaching and mortality by application of climate adaptation and mitigation measures.

ii) Elimination of blast fishing and other destructive fishing practices, and all forms of pollution in the coral reef ecosystem.

iii) Strengthening coral information sharing and education programmes, especially aiming at reducing knowledge gaps between the experts and the community.

iv) Strengthen enforcement of existing legal frameworks.

v) Strengthen research and monitoring programme to address knowledge gaps and understand the coral status and their associated ecosystems.

vi) Strengthen coordination among stakeholders.

vii) Strengthen existing policies and legislations to provide for responsible coral reef conservation.

viii) Operationalize the NAPCRCR

ix) Develop a financial sustainability strategy for coral reef monitoring and conservation programs (i.e. Coral Reef Conservation Fund).

x) Enhance alternative means of livelihood for coastal communities.

(b) Strategic Outcomes

i) Decreased coral reefs bleaching and mortality due to the implementation of the coral reef climate adaptation and mitigation measures.

ii) Improved hard coral cover through the implementation of conservation measures, habitat management plans and sustainable coastal development practices.

iii) Increased awareness, understanding, and engagement of local communities, stakeholders, and the general public regarding coral reefs conservation through comprehensive information and education programs.

iv) Enhanced enforcement and compliance with existing legal frameworks related to coral reef conservation, leading to a reduction in illegal activities such as blast fishing and other destructive fishing practices.

v) Improved understanding of coral reef population dynamics, behavior, larval movement patterns, and the impacts of threats through comprehensive research and monitoring programs. This knowledge enables evidence-based conservation strategies, adaptive management, and targeted interventions to mitigate threats and support the long-term survival of coral reef populations.

vi) Improved collaboration and communication among institutions, including enhanced data sharing.

vii) Enhanced policies and legislations that effectively support responsible coral reef conservation and management.

viii) NAPCRCR formalized and Operationalized using a dedicated road map.

ix) A sustainable financing mechanism for coral reef monitoring and conservation developed

x) Availability and access to programs and projects that provide alternative means to livelihood to coastal communities enhanced.

Therefore, a comprehensive framework for stakeholders, policymakers, and conservation practitioners to guide their efforts towards the effective conservation and management of coral reefs, their associated biodiversity, and other key ecosystems in the marine space. The plan recognizes the critical need to address the various threats and challenges faced by coral reefs and provide a strategic approach to mitigate their impacts. In Table 3, the specific management actions are presented, providing a clear roadmap for implementation. Each action is accompanied by defined objectives, strategic interventions, activities, responsible stakeholders, priorities and timelines.

Table 5: Conservation and Management Actions

• **Objective 1: Reduce Coral reef bleaching and Mortality through climate change adaptation and mitigation measures**							
Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
1.1 Upscale resilience of the coral genus	**1.1.1** Capacity building to coral practitioners in Tanzania	MPRU, DMC, LGAs, MLF, MoBEF, village councils/ CBOs, NEMC, ZEMA					
	1.1.2 Mapping and undertaking restoration to resilient coral reef genus	MLF, MPRU, DMC, Marine Police, LGAs, UDSM, VLCs/ BMUs/ SFCs/CBOs					
	1.1.3 Strengthen coral reef bleaching programmes and especially the TzCTF	MLF, MPRU, DMC, LGAs, VLCs/BMUs/ SFCs, Marine Police, NEMC					
1.2 Strengthen sea surface temperature (SST) monitoring	**1.2.1** Procure temperature loggers for SST monitoring	MPRU, NGOs, community rangers, VLCs/ BMUs/SFCs, Marine Police					
	1.2.2 Deploy temperature loggers in all coral reef monitoring sites	MPRU, DMC, LGAs, Marine Police, village councils, VLCs/BMUs/ SFCs/SUZA/ UDSM					
	1.2.3 Strengthening MCS activities	MLF, MPRU, DMC, LGAs, Marine Police, VLCs/BMUs/ SFCs					
1.3 Develop pre- and post- bleaching program to measure coral bleaching impacts	**1.3.1** Conduct coral bleaching monitoring using global methods which are standard e.g. GCRMN	MLF, MoBEF, DMC, MPRU, WCS, COR-DIO, other NGOs, LGAs, community rangers, VLCs/ BMUs/SFCs					

• Objective 2: Elimination of blast fishing and other destructive fishing practices, and all forms of pollution							
Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
2.1 Strengthen enforcement on blast fishing	**2.1.1** Conduct multi-stakeholder meetings to map blast fishers and eliminate blast fishing practice	MLF, MPRU, MoBEF, Academic/ Research Institutes, LGAs, NGOs, BMUs/ VLCs/SFCs					
	2.1.2 Engage with sectors involved in weaponry e.g. mining, to strategize control of armory and stores	MPRU, TFS, Forest Department, DMC, MLF, MoBEF, NEMC, LGAs, BMUs/VLCs/ SFCs, Miners, energy					
2.2 Strengthening enforcement and establish baseline for pull net fishing	**2.2.1** Conduct assessment on pull net status	MPRU, Forest Department, DMC, MLF, MoBEF,					
	2.2.2 Support and Promote implementation of Marine Spatial Planning	VPO, MPRU, TFS, Forest Department, DMC, MLF, MoBEF, NEMC, ZEMA, LGAs, NGOs, private sector, National Land Use Planning Commission (NLUPC).					
	2.2.3 Conduct land/sea patrols and other MCS activities to enforce laws	MLF, MoBEF, MPRU, DMC, LGAs, DSFA, Marine Police, KMKM, BMUs/ VLCs, SFCs					
	2.2.4 Conduct inspections at fish landing sites and migrant fishers' camps	MLF, MoBEF, MPRU, DMC, LGAs, BMUs/ VLCs/SFCs					
2.3 Prohibit trade and mining of coral reef products	**2.3.1** Raise awareness to the public on the importance of coral reef conservation	MPRU, DMC, DSFA, LGAs, NGOs, BMUs/ VLCs/SFCs, community					

	2.3.2 Enforce laws on trade	MPRU, DMC, LGAs, Marine Police, village councils					
	2.3.3 Conduct beach patrols and other MCS activities	MLF, MoBEF, MPRU, DMC, LGAs, Marine Police, BMUs/ VLCs/SFCs					
	2.3.4 Conduct inspections at beaches, fish landing sites, and migrant fisher camps	MLF, MPRU, LGAs, BMUs/ VLCs/SFCs					
2.4. Reduce all forms of pollution at sea	**2.4.1** Enforce laws on polluting industries and agricultural discharges etc.	NEMC, ZEMA, TPA, ZPC, ZMA, TASAC, MPRU, DMC, LGAs					
	2.4.2 Monitor intentional discharge of wastes such as ballast water, oil spills, chemicals, domestic sewage, solid wastes at sea, etc.	NEMC, ZEMA, TPA, ZPC, ZEMA, TASAC, MPRU, DMC, LGAs					
	2.4.3 Collaborate with relevant agencies to raise awareness to the public on the importance of waste management practices	MPRU, DMC, LGAs, NEMC, ZEMA, NGOs, fishing companies, Community					
	2.4.4 Regulate the disposal of unused fishing gears	MLF, MoBEF, MPRU, DMC, NEMC, LGAs, VLCs/BMUs/ SFCs					
	2.4.5 Conduct regular beach clean-up activities	NGOs, LGAs, BMUs,NEMC BMUs/VLCs/ SFCs, Community, private sector					
	2.4.6 Strengthen district waste management plans	LGAs, districts, private sector, ward and village councils					
	2.4.7 Collaborate with private sector to implement and support waste management plans	Private sector, NEMC, ZEMA, LGAs, districts, ward and village councils					

2.5 Implement measures to protect and restore critical habitats; seagrass meadows, coral reefs and mangroves	**2.5.1** Raise awareness in coastal communities on the importance of sustainable resource use	MPRU, DMC, LGAs, NGOs, Community					
	2.5.2 Enforce laws prohibiting the use of destructive fishing gear e.g., beach seines	MLF, MoBEF, MPRU, TFS, Forest Department, DMC, Marine Police, LGAs, BMUs/ VLCs/SFCs, village councils					
	2.5.3 Enforce laws to protect and conserve critical habitats.	NEMC, TPA, ZPC, ZMA, TASAC, LGAs					
	2.5.4 Conduct restoration and monitoring programmes for seagrass, mangrove and coral reef ecosystems	Academic/ research institutions, TFS, Forest Department, NGOs, Community, schools, private sector					

• Objective 3: Promote information and education programmes

Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
3.1 Develop educational materials for training	**3.1.1** Conduct situation analysis to get an inventory of existing coral reef education and awareness materials available in Tanzania and the wider WIO region	MPRU, DMC, MLF, MoBEF, LGAs, Research and Academic Institutions, NGOs, NEMC					
	3.2.1 Adapt lesson lent on coral reef education and awareness from other regions.	MPRU, DMC, MLF, MoBEF, LGAs, Research and Academic Institutions, NGOs, NEMC					

3.2 Develop programmes and conduct education and awareness campaigns	**3.2.1** Organize workshops, seminars, education and awareness sessions to (innovative and creative tools) to targeted stakeholders e.g., policy-makers, law enforcers, schools, colleagues, higher learning institutions, coastal communities	MPRU, DMC, MLF, MoBEF, NGOs, LGAs					
	3.2.2 Advocate for the inclusion of coral reef biology and marine conservation issues into school curricula	MPRU, DMC, MLF, MoBEF, Ministry of Education and Vocational Training,					
	3.2.3 Evaluate the effectiveness of education and awareness programmes	MPRU, DMC, MLF, MoBEF, NGOs, LGAs					
	3.2.4 Organize annual celebrations on Ocean day annually	MPRU, DMC, MLF, MoBEF, NGOs, Private sector					

• Objective 4: Strengthen enforcement of existing legal frameworks

Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
4.1 Enhance enforcement capacity and training programs for law enforcement agencies	**4.1.1** Conduct workshops and seminars for law enforcers and judicial sector on coral reef conservation laws and regulations	MLF, MoBEF, MPRU, DMC, LGAs, NGOs, NEMC					
	4.1.2 Conduct capacity building programs to VLCs, BMUs, Village Environmental Committees, SFCs on coral reef conservation laws and regulations	MLF, MoBEF, MPRU, DMC, LGAs, NGOs					
	4.1.3 Strengthen community-based monitoring network (CFMAs MBUs, VLCs,)	MLF, MoBEF, MPRU, DMC, LGAs, NGOs					
	4.1.4 Enhance the technological and expertise capacity of public enforcement agencies	MLF, MoBEF, MPRU, DMC, LGAs,					

• Objective 5: Strengthen research and monitoring to address knowledge gaps and understand the impacts of threats on coral reef population structure and their associated ecosystems							
Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
5.1 Develop coral and associated biodiversity monitoring programmes	**5.1.1** Implement coral reef and associated biodiversity monitoring programmes	**1.** Academic/ research Institutions, NGOs					
	5.1.2 Conduct population structure assessments and ecosystem connectivity and determine reproductive potential	**2.** NGOs, MPRU, DMC, LGAs, BMUs/ VLCs, SFCs, ZAFIR, TAFIRI					
5.2 Improve understanding of in water life cycle and ecosystem connectivity	**5.2.1** Conduct study to investigate life cycle for both larval source and sink	**1.** Academic/ research institutes, MPRU, DMC, NGOs					
5.3 Promote Research programme with specific thematic areas on coral reefs	**5.3.1** Developing fundable coral reef research proposals	**1.** Academic/ research institutes, MPRU, DMC, NGOs					
	5.3.2 Recruit masters and PhD students to conduct research on coral reefs	**2.** Academic/ research institutes, MPRU, DMC, NGOs					
	5.3.3 Conduct research on coral reef hotspot areas	**3.** Academic/ research institutes, MPRU, DMC, NGOs					
5.4 Investigate socio-cultural values associated with coral reefs	**5.4.1** Conduct socio-economic surveys to capture knowledge, attitude and practice within coastal communities	**1.** Academic/ research institutes, MPRU, DMC, NGOs					
5.5 Improve knowledge management on coral reefs data/ information	**5.1.1** Develop a comprehensive centralized cross-cutting data base for marine resources to reduce fragmentation of marine information	**1.** MLF, MoBEF, MPRU, DMC, NGOs					

	5.5 2 Conduct periodic inventory and updating of information on coral reefs	**2.** MPRU, NEMC, MPRU, DMC, MLF, MoBEF, LGAs, Research and Academic Institutions, NGOs					
	5.5.3 Support stake-holder participation in regional and international coral reef meetings, conferences, workshops etc. Support information sharing at international forum	**3.** Academic/ research institutes, MLF, MBEF, MPRU, DMC, NGOs					
	5.5.4 Publish data in peer reviewed journals	**4.** Academic/ research insti-tutes, NGOs					
	5.5.5 Promote coral reef conservation efforts in Tanzania in TV, radio and print media, and on web-sites and social media platforms	**5.** MLF, MBEF, MPRU, DMC, NGOs					
	5.5.6. Support Tanzania Coral Reef Task Force (TzCRTF) activities	**6.** NEMC, MPRU, DMC, MLF, MoBEF, LGAs, Research and Academic Institutions, NGOs					

• Objective 6: Strengthen national, regional and international stakeholder collaboration for the conservation of coral reefs							
Strategic Interventions	**1 Activities**	**1 Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
6.1 Enhance communication and coordination amongst national stakeholders	**6.1.1** Develop a Marine Spatial Planning System to coordinate the allocation of marine space to different entities and stakeholders	**1.** VPO, MoLHS, MoF, MPRU, DMC, MLF, MoBEF, LGAs, etc					
	5.1.2 Strengthen Integrated Coastal Zone Management through periodic but comprehensive frameworks or guides (National Integrated Coastal Environmental Management Strategy and District Integrated Coastal Management Action Plans, Research Guidelines)	**2.** VPO, NEMC, MLF, MPRU, DMC, MLF, MoBEF, LGAs, etc					
	6.1.3 Training and capacity building to Committee members	Government, Development Partners and NGOs					
	6.1.4 Strengthen coordination and information sharing through participation of national focal points of related conventions in the proposed National Coral reef Conservation Committee	MLF, MoBEF, MPRU, Ministry of Natural Resources and Tourism					
	6.1.5 Convene national forums/Expos on the conservation of coral reefs	MLF, MoBEF, MPRU, Ministry of Natural Resources and Tourism, NEMC					
6.2 Strengthen regional and international collaboration	**6.2.1** Participation in the National level Fora, seminars, meetings, conferences and exhibitions	MLF, MoBEF, MPRU, Ministry of Natural Resources and Tourism, NEMC					
	6.2.1 Participation of Tanzania in regional and international (Western Indian Ocean Coral reef Task Force (WIOCRTF - MTTF) and ICRI meetings, conferences, symposiums and expos	MPRU, DMC, MLF, MoBEF					

• Objective 7: Strengthen existing policies and legislation to provide for responsible coral reef conservation							
Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
7.1 Strengthen policy and legislative frameworks	**7.1.1** Support the review/development of policy, guidelines, strategies to enhance coral	VPO, MoLHS, MoF, MPRU, DMC, MLF, MoBEF, NEMC, LGAs, etc					
	7.1.2 Conduct a comprehensive review of current frameworks to address gaps and propose necessary amendments to enhance coral reef conservation and management	Central government, MPRU, DMC, LGAs, NEMC, Academic/research institutions, NGOs					
	7.1.3 Conduct public awareness campaigns on the legal frameworks related to coral reef management	MPRU, DMC, MLF, MoBEF, LGAs, NGOs					
	7.1.4 Formulate/review bylaws that protect coral reefs and their habitats	LGAs, BMUs/ VLCs/SFCs, village councils, NGOs					
7.2 Mainstream coral reef conservation issues into the national fisheries and biodiversity agenda	**7.2.1** Develop policy briefs for informed decision making	NGOs, MPRU, DMC, MLF, MoBEF					
	7.2.2 Incorporate coral reef conservation measures in district development management plans/legal frameworks	NGOs, MPRU, DMC, MLF, MoBEF					

• Objective 8. NAPCRCR formalized and Operational using a dedicated road map							
Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
1 Strenthening operationalization of the NAPCRCR	**1.1** Develop ToR for the Committee and respective roadmap **1.2** Committee and stakeholders to apply for grant to implement the plan **1.3** All stakeholders to adopt the NAPCRCR plan in their annual work plan	MPRU, MLF, MoBEF					

• Objective 9. Sustainable financing mechanism for coral reef monitoring and conservation developed							
Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
1 Develop sustainable financing mechanism for the NAPCRCR	**1.1** Conservation committee and Stakeholder lead on grand application	MPRU, MLF, MoBEF, NGOs					

• Objective 10: Stimulation and provision of alternative means to livelihood for coastal communities.							
Strategic Interventions	**Activities**	**Responsible stakeholders**	**Timeframe**				
			Yr1	**Yr2**	**Yr3**	**Yr4**	**Yr5**
10.1 Creating a conducive environment for investments and projects for alternative means of livelihood	**10.1.1** Develop materials for enhancing the visibility of available opportunities in the aquatic environment	Central Government, LGAs, MPRU, NEMC, DSFA, MLF, MoBEF, DMX, Academic and Research institutions, NGOs, CBOs etc,					

10.2 Developing programs and projects that focus on alternative means to livelihood	**10.2.1** Develop fundable project concepts and proposals and liaise with different development partners for their implementation	Central Government, LGAs, MPRU, NEMC, DSFA, MLF, MoBEF, DMX, Academic and Research institutions, NGOs, CBOs, etc.					
	10.2.2 Collaborate with coastal communities in identification and implementation of alternative livelihoods	Central Government, LGAs, MPRU, NEMC, DSFA, MLF, MoBEF, DMX, Academic and Research institutions, NGOs, CBOs, etc.					

CHAPTER FOUR

4. MONITORING, EVALUATION AND LEARNING

This Monitoring, Evaluation, and Learning (MEL) Framework is structured to support adaptive management, policy alignment, stakeholder engagement, and sustainable outcomes across ecological, social, and economic dimensions of coral reef conservation and management in accordance to the strategic objectives and actions defined in this strategy.

Monitoring, Evaluation and Learning framework is a very important tool for assessing the progress of the NAPCRCR in achieving the set targets and ensuring accountability, facilitating effective communication, and fostering support from stakeholders. The MEL matrix established will be used to measure the implementation effectiveness by tracking the general performance, outputs attained, and the lessons learned during the implementation of the NAPCRCR.

Monitoring will be undertaken on a continuous basis, while evaluation of the implementation of the NAPCRCR will be done annually, mid review and at the end of the action plan's duration. Annual evaluations are intended to assess performance and provide opportunity to reflect on the gaps and propose actions.

4.1 Purpose of the MEL Framework

The purpose of this MEL framework is to provide guidance and means of tracking progress, evaluate effectiveness, and generate learning outcomes for adaptive implementation of the Coral Reef Plan of Action in Tanzania, ensuring that sustainable conservation, restoration is secured.

4.2 MEL Objectives

- Monitor the implementation of strategic actions and interventions.
- Evaluate the impact and effectiveness of management practices.
- Facilitate adaptive management through learning and feedback loops.
- Support decision-making for scaling up with evidence-based information.
- Ensure accountability to stakeholders, including communities, government, and development partners.

4.3 Strategic Objectives for Monitoring

Strategic objective	Key areas for monitoring
i) Reduce coral reefs bleaching and mortality by application of climate adaptation and mitigation strategy	Bleaching events and impacted coral species and areas
i) Elimination of blast fishing and other destructive fishing practices, and all forms of pollution in coral reefs ecosystem	enforcement of laws and regulations
ii) Strengthening coral information sharing and education programmes, especially aiming at reducing knowledge gaps between the experts and community.	Capacity building on information, data sharing and networking
iii) Strengthen enforcement of existing legal frameworks.	Adentify gap in laws, policies for strengthening enforcement
iv) Strengthen Research and monitoring programme to address knowledge gaps and understand coral status and their associated biodiversity.	Develop and apply best practices for ecological research and monitoring
v) Strengthen coordination among stakeholders.	Identify gap for stakeholders integration and networking
vi) Strengthen existing policies and legislations to provide for responsible coral reefs conservation.	Strengthen legal frameworks and enforcement mechanisms for coral reef protection
vii) Develop and implement/operationalize NAPCRCR for coral reef resilience as adaptation plan and strategy.	Establish long-term ecological monitoring programs
viii) Develop coral reef resilience plan/strategy.	Develop GIS/remote sensing tools for long term monitoring
ix) Develop financial sustainability strategy for coral reef monitoring and conservation programs (i.e. Coral Reef Conservation Fund).	Develop sustainability plan for coral reef research and monitoring

x) Enhance alternative means of livelihood for coastal communities residing in the project areas and depend on the coral reefs for their livelihood	community-led coral restoration initiatives, including capacity building through training of community groups

4.4 Learning and Adaptive Management

- Learning forums: Annual Mangrove Learning Summits, district-level review workshops
- Feedback mechanisms: Stakeholder reports, adaptive strategy updates, real-time data dashboards
- Documentation: Lessons learned, best practices, case studies shared across regions

4.5 Reporting and Communication

- Annual Progress Reports: Shared with stakeholders, including government, donors, and community groups
- Policy Briefs: Targeted summaries for decision-makers
- Public Platforms: Open-access dashboards, newsletters, media campaigns

4.6 Review of the National Action Plan

The NAPCRCR will undergo a mid-term review conducted by the implementation committee to assess the progress, accomplishments, and challenges encountered throughout its implementation and update/amend the conservation and management actions where necessary, timelines and SWOT analysis respectively. This comprehensive review process will provide an opportunity to evaluate the alignment of actions with set goals and targets, identify areas in need of improvement, and capture valuable lessons learned. Key stakeholders, experts, and relevant authorities will be actively engaged in providing feedback, insights, and recommendations to refine the NAPCRCR. Through this iterative process, the NAPCRCR can be flexibly modified and adjusted to effectively address emerging issues, evolving priorities, and changing circumstances. By integrating a robust review mechanism, the NAPCRCR ensures it remains responsive, accountable, and capable of delivering meaningful outcomes in the conservation of coral reefs and their associated biodiversity over the designated five-year period.

CHAPTER FIVE

5. MONITORING AND EVALUATION

Implementation of this plan will be monitored on a quarterly (activity and expenditure) and an annual basis (outputs). It is important that Monitoring. Evaluation and Learning (MEL) is as much as possible directly linked to other monitoring and evaluation processes at MPRU. This move not only leads to efficient use of resources but also will support MPRU in improving its data management systems, especially in studying the inter-linkage and complementarities of different programmes contributing to NAPCRCR objectives. Furthermore, monitoring and evaluation will be conducted to track the implementation of all components according to agreed performance indicators. The Annex A presents the monitoring and evaluation plan of the NAPCRCR.

Annex A: Monitoring and Evaluation Plan

Strategic Intervention	Key Performance Indicator	Definition of Key Performance Indicator	Baseline		Target					Means of Verification	Responsible stakeholder
			2024	Value	Y1	Y2	Y3	Y4	Y5		
Objective 1: Reduce Coral reef bleaching and Mortality by application of climate adaptation and mitigation strategy											
1.1 Increase coral reef resilience to bleaching in five zones of coral reef monitoring established	% coral cover	Coral reefs cover will be determined after bleaching event to determine mortality and compare the impact the previous event in zone 1-5	42%	%	41	42	43	45	50	Reports from monitoring programs. Reports from MPRU, NGOs working on coral reef Publications	MLF, MoBEF, MPRU, DMC, LGAs, NGOs, CBOs, VLCs, BMUs, SFCs, Marine Police, private sector, Village councils, Community
1.2 Eliminate illegal fishing gears fishing in coral reefs	% decrease number of coral destructive gear	Destructive fishing gear (all pull nets fishing gears) will be eliminated in coral reefs to reduce stress to coral reef in zone 1-5		%						Reports from monitoring programs. Frame survey report Reports from BMUs/CFMAs/ SFCs	MLF, MoBEF, MPRU, DMC, LGAs, NGOs, CBOs, VLCs, BMUs, SFCs, Marine Police, village councils, private sector, Community

1.3 Implement measures to create awareness on coral reef bleaching and threat reduction to stakeholders	% increase in number of awareness programme done to fishers in coral reef ecosystem particularly during bleaching event	different Awareness program will be created to fishers fishing in coral reef eg workshops, seminar etc	20	%	40	50	60	80	100	Reports from monitoring programs. Reports from BMUs/CFMAs/ SFCs	NGOs, community rangers, VLCs, BMUs, SFCs, community rangers, MPRU, DMC, MLF, MoBEF, LGAs, TAFIRI, ZAFIRI, Community
1.4 Strengthening MCS dedicated for bleaching event	% decrease incidence in coral reef fishing	Coral reef fishing incidence will be reduced by strengthening MCS	500/ day	#	400	300	200	100	0	Reports from monitoring programs. Reports from BMUs/CFMAs/ SFCs	NGOs, BMUs, VLCs, SFCs
1.6 Eliminate targeted coral fisheries	Number of vessels targeting in coral reef fishing Number of gear specific for corals confiscated annually	Fishing vessels which specifically target coral reefs Fishing gears which specifically target coral reefs	500/ day	#	400	300	200	100	0	Reports BMUs/ VLCs/SFCs	NGOs, BMUs, VLCs, SFCs, Community
1.7 Eliminate mining, trade and consumption of coral products	Number of cases reported annually Number of cases per year where penalty issued	Reports of incidents of consumption and trade of coral reefs Penalties issued for illegal fishing and trade of coral reefs	10 10	# #	5 5	5 5				Reports from village councils, BMUs/VLCs/ SFCs	LGAs, NGOs, BMUs, VLCs, SFCs, community

1.8 Reduce threats from marine debris and other threats to coral reef	Number of districts with waste management plans along the coastal Number of BMU and others stakeholders conducting cleaning Number of BMU with waste management plan	Districts implementing active waste management plans These are Beach Management Units actively conducting regular beach clean-up programs. Beach Management Units that have active waste management plans in place and are implementing them.	10 50 0	# # #	12 150 150	18 204 204			204	Reports from village councils, BMUs/VLCs/ SFCs	LGAs, NGOs, BMUs, VLCs, SFCs, community
Objective 2: Elimination of blast fishing and other destructive fishing practice in coral reef ecosystem.											
2.1 Identify and eliminate blastrs	Number of blast identified	The total numbers of fishers using blast identified all five zones	200 0	# #	200					Activity reports submitted at MPRU	Academic/ Research Institutes, MPRU, DMC, LGAs, NGOs, BMUs, VLCs, SFCs
2.2 Regulate supply system of blast accessories sources	Numbers of blast accessory sources	Blast accessories which are associated with blast will be regulated		#						Survey reports submitted at MPRU	NEMC, ZEMA, MPRU, DMC, MLF, MoBEF, NGOs, BMUs, VLCs, SFCs, TFS, Forest department

2.3 Strengthens judiciary by conducting conservation awareness	Number of Judicial staff trained/ awareness created	Magistrates, Public prosecutors will be capacitated through different programs e.g. seminar, workshops	0	#	200	400	600	800	900	Survey reports submitted at MPRU	NEMC, ZEMA, MPRU, DMC, MLF, MoBEF, NGOs, BMUs, VLCs, SFCs
Objective 3: Promote information and education programme											
3.1 Develop educational materials and resources dedicated to coral reef	Number and types of educational materials developed	These educational materials such as brochures, videos, posters, books etc produced to be used in awareness raising about coral reefs	0	#	100	100	100	100	100	Reports and materials developed in place and submitted at MPRU	MPRU, DMC, MLF, MoBEF, LGAs, Research/ Academic Institutions, NGOs
3.2 Develop and conduct focused education and awareness programmes	Number of education and awareness activities implemented Number of people reached (number of direct participants)	This refers to the activities or programs conducted to promote education and raise awareness about coral reefs These are individuals who directly engage or participate in education and awareness campaigns	0	#	27	27	27	27	27	Reports from LGAs/BMUs/ SFCs/VLCs submitted at MPRU	MPRU, DMC, MLF, MoBEF, LGAs, Research/ Academic Institutions, NGOs

Objective 4: Strengthen enforcement of existing legal frameworks											
4.1 Enhance collaboration and coordination amongst law enforcement agencies	Number of workshops and meeting conducted	These workshops are designed to enhance the awareness of law enforcement officers of the laws and regulations governing coral reef conservation	0	#	4	4	4	4	4	Quarterly reports submitted at MPRU	MLF, MoBEF, MPRU, DMC, LGAs, NGOs
	Number of community members reporting incidents Increased number of joint interventions	Individuals who report incidents of violation of laws and regulations A joint intervention refers to a collaborative activity or effort undertaken to support the conservation of coral reefs.	0	#	1					Agreement submitted at MPRU	

Objective 5: Strengthen research and monitoring to address knowledge gaps and understand the impacts of threats on coral reef population and their habitats											
5.1 Assess and monitor coral reef activity	Number of districts with active restoration and monitoring programmes	The districts that have active coral reef restoration and monitoring programs. The studies conducted to assess the population dynamics of coral reefs	2	#		1				Reports submitted at MPRU	Academic/ research Institutions, NGOs, MPRU, DMC, LGAs, BMUs, VLCs, SFCs
	Number of annual population assessments conducted		0	#		1					
5.2 Improve understanding of in water coral reef connectivity	Number of studies conducted	Research/studies undertaken to elucidate the life cycle of coral reefs	0	#		1				Reports submitted at MPRU	Academic/ research institutes, MPRU, DMC, NGOs
5.3 Promote Research programme with specific thematic areas on coral reefs	Number students undertaking research on coral reefs Funding secured	These are students who are engaged in research studies focused on coral reefs The funds that have been secured to support coral reef conservation efforts	0 0	# #			1 1			Number of reports and scientific articles Reports submitted at MPRU	Academic and Research Institutions

5.4 Investigate socio-cultural values associated with coral reefs	Number of surveys conducted	These are surveys conducted to understand the socio-economic values associated with coral reefs in coastal communities	0	#		1				Reports submitted at MPRU	Academic/ research Institutes, MPRU, DMC, NGOs
5.5 Improve knowledge management on coral reefs	Number of communication products	Communication products include a range of materials designed/ produced to disseminate knowledge and raise awareness about coral reef conservation and management	0	#		2		2		Publications	Academic/ research Institutes, MLF, MEEF, MPRU, DMC, NGOs
	Number of communication media developed and upgraded	Communication media refer to the various digital platforms and channels used for sharing and exchanging information regarding coral reef conservation	0	#	1		3	1		Communication platforms	
Objective 6: Strengthen national, regional and international stakeholder collaboration for conservation of coral reefs											

6.1 Enhance communication and coordination amongst national stakeholders	National Coral reef Committee established	The National Coral Reefs Committee is an administrative body that will be established to oversee the implementation of the National Action Plan	0	#	1					Report submitted at MPRU	MPRU, DMC, MLF, MoBEF
	Number of Committee meeting conducted Number of agreements developed	These are the operational meetings that the committee will convene during the implementation of the National Action Plan These are the official agreements or Memorandums of Understanding entered into between entities with the goal of collaborating on coral reef conservation efforts	0 0	# #	2 1	2 1	2 1	2 1	2 1	Meeting minutes and Reports Agreement submitted at MPRU	Established committee Established committee
	Number of annual meetings conducted	These are the stakeholder meetings or forums that will conducted during the implementation of the National Action Plan	0	#	1					Reports and minutes	Respective Focal points

6.2 Strengthen regional and international collaboration	Number of regional and international forums attended	This refers to the forums held at both regional and international levels	0	#	1	1	1	1	1	Reports	MPRU, DMC, MLF, MoBEF
Objective 7: Strengthen existing policies and legislations to provide for responsible coral reef conservation											
7.1 Strengthen legislative frameworks	Number of legal frameworks reviewed	This involves reviewing the existing legal frameworks related to coral reef conservation	0	#		7				Revised legislation	MPRU, DMC, MLF, MoBEF
	Number of bylaws formulated	These are legal frameworks established and implemented by local communities to govern the conservation of coral reefs and their habitats	0	#	4	8	8	7		by-laws approved by LGAs (mainland Tanzania and Zanzibar)	LGAs, BMU/SFCs/ VLCs

7.2 Mainstream coral reef conservation issues into the national fisheries and biodiversity agenda	Number of sensitization meetings with national decision makers Number of plans/legal frameworks that incorporated coral reef conservation measures	These are meetings conducted to enhance the awareness of decision-makers, aiming to influence decision-making processes and strengthen law enforcement These refer to the plans and legal frameworks that have been developed to incorporate the conservation of coral reefs and their habitats into official policy and practice	0 0	# #	1 1	1 2	1 2	1 2	1 2	Meeting reports Policy briefs developed	MPRU, DMC, MLF, MoBEF

Objective 8. Develop and implement/operationalize NAPCRCR for coral reef resilience as an adaptation plan and strategy											
8.1. Develop an implementation plan of the NAPCRCR with a road map covering ToR and reporting plan to the committee	1. Number the NAPCRCR plan and the respective roadmap 2. Committee in place and operational 3. Number of stakeholders to adopt the NAPCRCR plan in their annual work plan 4. Number Grand secured	This refer to the strategy developed to implement the NAPRCCR	0 0 0 0	#		1 1	2	3			
8.2. Committee members are responsible	Number of awareness meetings conducted to committee on roles and responsibility	This refer to meeting, seminar, workshop done to committee									
Objective 9. Develop financial sustainability strategy for coral reef monitoring and conservation programs. (Environmental conservation and climate change fund)											
9.1. Operationalize Environmental conservation and climate change fund	Coral conservation fund in place	This refer to the establishment of Environmental conservation and climate change fund following all legal procedures	0	#		1					

9.2. Fund raising for Environmental conservation and climate change fund through grant application and from other sources	Number of grants acquired by the committee and other stakeholders	This refer to fund sources acquired	0			2	3				
Objective 10: Stimulation and provision of alternative means to livelihood to coastal communities.											
Strategic Intervention	Key Performance Indicator	Definition of Key Performance Indicator	Baseline		Target					Means of Verification	Responsible stakeholder
			2024	Value	Y1	Y2	Y3	Y4	Y5		
10.1 Creating a conducive field for different stakeholders to invest in win-win programs and projects that lead to alternative means to livelihood	Number of actions/events and activities for enhancing the visibility of opportunities in the coastal zone	This refers to the actions taken to attract investments that provide alternative means for livelihoods with a focus to the management of coral reefs	50	#	70	100	120	150	170	Reports Promotional materials	
	Types of projects, programs and portfolios towards alternative livelihoods	This is the number of successful (funded) proposals for projects', programs' and/or portfolios'	100	#	115	120	140	150	160	Project Proposals Evaluation reports	

10.2 Developing projects, programs and portfolios that focus on alternative means to livelihood	Number of projects, programs and portfolios towards alternative livelihoods	This is the number of successful (funded) projects', programs' and/ or portfolios' proposals developed by stakeholders and those stimulated through the promotion of available opportunities in the marine environment								Project proposals Evaluation reports	
Objective 11. Resilience as adaptation strategy											
11.1 Develop a coral reef resilience strategy1. 11.2. Review others relevant strategy and come up with a draft for the national coral reef strategy	Strategy in place	This indicator will measure the number of strategy in place									

Annex C: Proposed NAPCRCR budget for implementation

S/N	Strategic objectives/ interventions cost	Cost (USD)	Yr1	Yr2	Yr3	Yr4	Yr5
1	Reduce Coral reefs bleaching and Mortality by application of climate adaptation and mitigation strategy.	67,000.00	13,400.00	13,400.00	13,400.00	13,400.00	13,400.00
2	Elimination of blast fishing and other destructive fishing practice in coral reef ecosystem.	80,000.00	16,000.00	16,000.00	16,000.00	16,000.00	16,000.00
3	Strengthening coral information sharing and education programmes, especially aiming at reducing knowledge gaps between the experts and community.	230,000.00	46,000.00	46,000.00	46,000.00	46,000.00	46,000.00
4	Strengthen enforcement of existing legal frameworks	137,000.00	27,400.00	27,400.00	27,400.00	27,400.00	27,400.00
5	Enforce/ formation of bylaws by the LGAs in the Coastal Regions.	147,000.00	29,400.00	29,400.00	29,400.00	29,400.00	29,400.00

6	Strengthen Research and monitoring programme to address knowledge gaps and understand coral status and their associated biodiversity	90,000.00	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00
7	Strengthen coordination among stakeholders	159,000.00	31,800.00	31,800.00	31,800.00	31,800.00	31,800.00
8	Strengthen existing policies and legislations to provide for responsible coral reef conservation	89,000.00	17,800.00	17,800.00	17,800.00	17,800.00	17,800.00
9	Develop and implement/ operationalize NAPCRCR for coral reef	59,000.00	11,800.00	11,800.00	11,800.00	11,800.00	11,800.00
10	Resilience as adaptation strategy	240,000.00	100,000.00	100,000.00	40,000.00		
11	Enhance alternative means of livelihood to coastal communities.	500,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
	GRAND TOTAL	**1,798,000.00**	**411,600.00**	**411,600.00**	**351,600.00**	**311,600.00**	**311,600.00**