



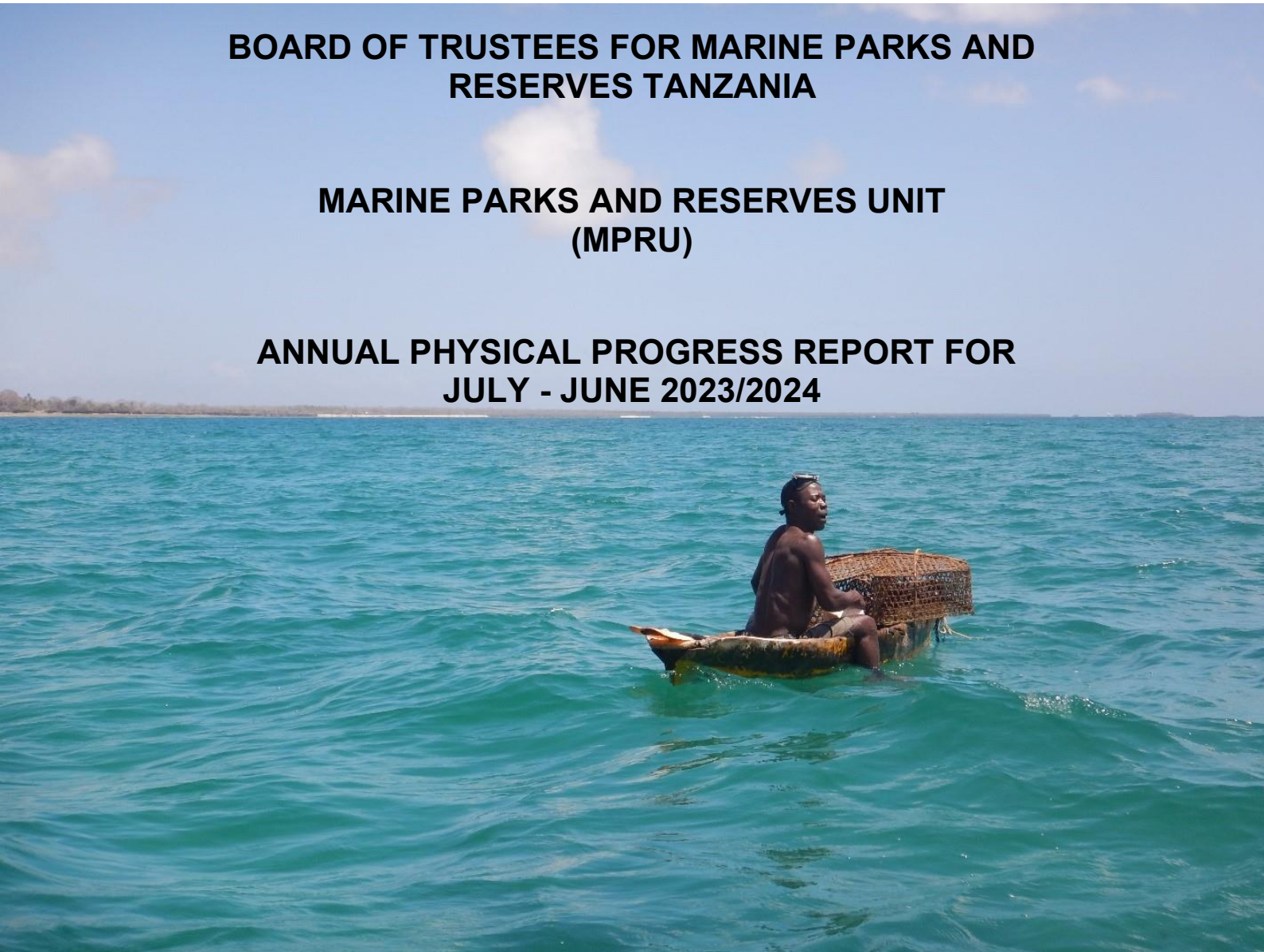
UNITED REPUBLIC OF TANZANIA
MINISTRY OF LIVESTOCK AND FISHERIES



**BOARD OF TRUSTEES FOR MARINE PARKS AND
RESERVES TANZANIA**

**MARINE PARKS AND RESERVES UNIT
(MPRU)**

**ANNUAL PHYSICAL PROGRESS REPORT FOR
JULY - JUNE 2023/2024**



July 2024

ABBREVIATIONS AND ACRONYMS

MPRU	Marine Parks and Reserves Unit
MPRs	Marine Parks and Reserves
VLC	Village Liaison Committee of a Marine Park
BMU	Beach Management Unit
LEU	Licensing and Law Enforcement Unit
VEU	Village Enforcement Unit
LRUC	Local Residents' User Certificates for MPA residents
MPA	Marine protected Area
CCU	Community Conservation Unit
AIGA	Alternative Income-Generating Activities
GMP	General Management Plan
MCS	Monitoring Control Surveillance
VICOBA	Village Community Bank
WCS	Wildlife Conservation Society
BAF	Blue Action Fund
WWF	World-wide Fund for Nature
CPUE	Catch Per Unit Effort
IUCN	International Union of Conservation for Nature
NMT	National Museum of Tanzania
TACMP	Tanga Coelacanth Marine Park
MIMP	Mafia Island Marine Park
MBREMP	Mnazi bay-Ruvuma Estuary Marine Park
MIMR	Mafia Island Marine Reserves
DMRS	Dar es Salaam Marine Reserves System
TMRS	Tanga Marine Reserves System

EXECUTIVE SUMMARY

This section presents a summary of achievements in the implementation of conservation and management activities carried out by the Marine Parks and Reserves Unit (MPRU) across all Marine Parks and Reserves (MPRs) for the period from July 2023 to June 2024, within the 2023/2024 financial year. The report is divided into 4 major sections including introduction, achievements, challenges and recommendations, and finally a conclusion. The reported achievements are organized according to the specific management objectives they support. The report also identifies key conservation and management challenges encountered during the period and provides corresponding recommendations. A concluding section highlights critical conservation and management issues, along with best practices that MPRU and its stakeholders should uphold to ensure the effective and sustainable protection of biodiversity and ecosystem processes within the Marine Protected Areas (MPAs). The main achievements are outlined below.

Objective 1. Protection, Conservation, and Restoration of Biodiversity and Ecosystem Processes in marine and coastal areas

In line with Objective 1, which focuses on the protection, conservation, and restoration of biodiversity and ecosystem processes in marine and coastal areas, the MPA Licensing and Law Enforcement Unit (LEU) conducted 948 surveillance and enforcement patrols across all Marine Protected Areas during the reporting period. These operations resulted in the identification of 263 incidents involving illegal or unsustainable resource use, implicating a total of 953 individuals. Enforcement actions resulted in 6 criminal cases, culminating in a total penalty of Tshs 51,384,000. Common violations included illegal fishing activities, such as operating without licenses and using prohibited fishing gears, in addition to illegal mangrove and timber harvesting, and instances of dynamite fishing.

In parallel, the MPRU successfully regulated fishing activities through the issuance of 411 Local Residents' User Certificates (LRUC) and 302 Non-Resident Fishing Permits. This initiative was designed to ensure compliance with fishing regulations and manage the presence of non-resident fishers within the MPAs. The strategic distribution of permits highlights the MPRU's commitment to enforcing sustainable fishing practices while also facilitating community access to vital fisheries resources. Together, these achievements reflect the MPRU's dedication to protecting marine biodiversity and ensuring sustainable ecosystem management.

Objective 2. Enhance community engagement in the planning, development, and management of Marine Protected Areas (MPAs)

In alignment with Objective 2, which aims to enhance community engagement in the planning, development, and management of MPAs, the Community Conservation Unit (CCU) made significant progress in promoting active community involvement. The unit prioritized local communities in resource use and benefit-sharing initiatives, resulting in meaningful participation and strengthened collaboration in MPA governance over the reporting period. The local MPA communities, organized through Village Liaison Committees (VLCs), played a pivotal role in the processing of Local Residents' User Certificates (LRUC) and Non-Resident Fishing Permits. By verifying residency and compliance, these committees contributed to the issuance of 411 LRUCs and 302 non-resident fishing permits, reinforcing local governance and enabling regulated access to marine resources. To enhance co-planning and co-management of marine resources, community members from the Tanga Coelacanth Marine Park (TACMP) Village Liaison Committee collaborated with the Mwambao Coastal Community Project and local fishermen to map marine resources within and adjacent to TACMP. This initiative provides a crucial foundation for informed decision-making regarding the management of marine resources, fostering sustainability and community engagement.

In preparation for the renewal of the General Management Plan (GMP) for 2023-2033 for Mafia Island Marine Park (MIMP), local communities engaged with diverse stakeholders to review the expiring GMP. A total of 855 participants, including 329 women and 526 men, shared their insights and reflections on previous management efforts. This inclusive approach ensures that community voices are integral to shaping future management strategies. Local communities, alongside various stakeholders such as MPA-based hotels and dive centers, took initiative in maintaining beach cleanliness. Their collective efforts led to the removal of 5,492.2 kg of trash, including 8,630 pieces of plastic waste, highlighting the communities' commitment to environmental stewardship and the protection of marine ecosystems.

In a demonstration of the benefit-sharing principle, the Mnazi Bay-Ruvuma Estuary Marine Park (MBREMP) provided financial assistance to a diploma student from a less privileged background, enabling her to pursue studies in Environmental Science and Coastal Resource Management. This initiative not only facilitated her successful graduation but also exemplifies the commitment to empowering local community members through education.

Objective 3. Promoting Community-Oriented Education and Information Dissemination on Marine Conservation

Under Objective 3, the initiative focused on advancing environmental education and awareness among local communities and key stakeholders to build informed support for the conservation and sustainable use of Marine Parks and Reserves. Through a series of targeted outreach and capacity-building programs, a total of 2,305 individuals were directly engaged, encompassing students, community members, local leaders, and conservation practitioners. Specifically, a total of 165 primary and secondary school students and 1,311 higher education students were introduced to marine conservation concepts and practices. Community capacity was strengthened through training for 21 coastal zone managers and 232 MIMP community members in sustainable fishing and governance. Youth engagement was further promoted through a visit by 100 CCM-affiliated youths. Knowledge exchange and training for TACMP VLC members supported the development of community-based marine management plans. Innovative awareness efforts included Glass Bottom Boat tours for 250 participants, enhancing appreciation of marine biodiversity.

Additionally, community members received hands-on training in fish catch data collection and ecological monitoring using mobile phone app. technology. These efforts were complemented by focused training on marine biodiversity, co-management, and environmental safeguards in collaboration with partners such as WCS and WWF. The education, awareness, and capacity-building activities covered key topics such as Marine Protected Areas (MPAs) and their management, marine biodiversity including various fish species, and basic marine ecology. Additional focus areas included the establishment and role of conservation environmental clubs, community-based MPA governance, ecotourism, environmental and social safeguards, fish catch data collection and management, the development of community-based management plans, and the sustainable use and co-management of marine and coastal resources. The diverse and inclusive outreach strategy significantly enhanced community understanding and ownership of marine conservation efforts, reinforcing the role of education as a cornerstone in achieving sustainable management of marine and coastal resources.

Objective 4. Stimulate the Rational Development of Under-utilized Resources and Emerging Activities Sustainably

During the review period, the MBREMP and MIMP initiatives achieved significant progress in promoting alternative income-generating activities (AIGAs) and improving community livelihoods. The MPRU staff members engaged with community groups involved in fish smoking, beekeeping, and seaweed farming, providing essential knowledge and technical skills, alongside funding support for facility repairs.

MIMP further promoted diverse AIGAs, including entrepreneurship training and soft loans via the Village Community Bank (VICOBA) scheme. Furthermore, 170 community members received training on value addition for seaweed products, enhancing their ability to create soap, oil, and cosmetics, supported by MPRU, JICA, and the WWF Blue Action Fund Project. Additionally, 94 members were trained in best practices for seaweed farming, resulting in the substantial harvesting of 90,420 kg of dried seaweed, significantly improving productivity and economic viability within the community.

Objective 5. Facilitate and Promote the Development of Appropriate Eco-tourism

Objective 5 focused on facilitating and promoting eco-tourism, achieving several key milestones. Nine (9) tourism promotion events were conducted to raise awareness about sustainable coastal ecotourism and the socio-economic importance of MPAs, attracting numerous visitors. Infrastructure enhancements included maintenance of nature trails across various islands in the marine reserves, installation of signage, and the construction of visitor amenities. A promotional documentary was filmed to highlight conservation initiatives and tourism potential in Tanga. Additionally, a sustainability awareness campaign was conducted for 11 tourism boat operators. Overall, **50,231 tourists visited** the MPAs, generating approximately **TZS 2.39 billion in revenue**, reflecting increased visitation and income compared to the previous year. Furthermore, a collaborative meeting was held to review and amend user fee regulations, promoting sustainable tourism practices within the MPAs.

Objective 6. Facilitation of Research and Monitoring of Resources Use and Condition within the Marine Parks and Reserves

Objective 6 aimed to enhance the research and monitoring of resource use and conditions in marine parks and reserves. Key achievements included a comprehensive assessment of coral cover, revealing overall healthy reefs with significant coral growth, particularly at MBREMP, while coral bleaching and mortality were noted in certain areas. Assessments of mangrove and seagrass ecosystems showed minimal disturbance, with high densities indicating good health. A fish catch assessment registered approximately 261 tons of fin fish and octopus harvested, generating about TZS 1.89 billion in revenue. Monitoring of endangered species such as humpback whales, Indian Ocean humpback dolphins, and sea turtles led to conservation strategies, including a new code of conduct for whale watching and a successful sea turtle nesting project with an 87.9% hatching success rate. Additionally, beach monitoring efforts resulted in the collection of over 8,600 pieces of plastic waste, aiding in pollution management discussions.

Objective 7. Conservation and Protection of Historic and Cultural Heritage Sites of the MPAs residents

Under Objective 7, which focuses on the conservation and protection of historic and cultural heritage sites within MPAs, significant progress was achieved. In this context, MIMP successfully completed Phase III of the restoration project at the Ancient Swahili Ruins of Kua in collaboration with the National Museum of Tanzania, focusing on enhancing site interpretation and maintaining nature trails alongside local conservation groups. Additionally, approximately 900 meters of nature trails on Toten Island in TACMP were cleared of shrubs and bushes, ensuring that historic sites such as the mosque, prison, and German tombs remain clean, well-maintained and accessible to visitors.

Conclusion, Challenges and Recommendations

During the 2023/2024 financial year, several conservation and **management challenges** were encountered in the implementation of MPAs activities. Poaching and illegal or unsustainable resource use practices remained prevalent, threatening biodiversity and undermining conservation efforts. These issues were compounded by limited institutional capacity, including insufficient personnel, equipment, and logistical support to effectively enforce regulations and manage protected areas. Additionally, several MPAs continued to

operate under outdated management plans, while others lacked management plans altogether, limiting the effectiveness of adaptive and responsive conservation and management efforts. Other key challenges included limited capacity to address the complex socio-ecological impacts arising from conservation interventions, particularly in balancing community livelihoods with ecological sustainability. The lack of clearly marked or visible MPA boundaries further contributed to unintentional encroachment and resource use violations by local users. Furthermore, weak tourism infrastructure and inefficient revenue collection systems hindered the potential of ecotourism as a sustainable financing mechanism for MPA management and community benefit-sharing.

To enhance resource protection and MPA management, **it is recommended** to strengthen monitoring, control, and surveillance (MCS), focusing on identifying high-risk areas and applying adaptive interventions. This should include intensified law enforcement, increased user awareness, and active community participation through BMUs, VLCs, and Honorary Rangers. Institutional capacity building is essential, emphasizing staff recruitment, skills development, and stakeholder engagement to improve operational efficiency. Urgent attention is needed for management planning; the Dar es Salaam south marine reserves should be included in the DMRS General Management Plan (GMP) review, while the MIMP and MBREMP management plans must be updated to reflect current conservation priorities. In response to environmental threats, capacity should be built for climate change monitoring and mitigation, supported by external technical and financial assistance. Boundary enforcement should be improved through the acquisition of demarcation equipment and installation of mark buoys using durable, locally sourced materials. Lastly, MPRU should modernize its revenue systems and expand mooring infrastructure to support sustainable tourism.

In conclusion, addressing the challenges faced during the 2023/2024 financial year requires a comprehensive and coordinated approach. Strengthening law enforcement, updating management plans, and building institutional and community capacity are critical for improving the effectiveness of MPAs management. Enhancing surveillance, clarifying MPA boundaries, and investing in tourism infrastructure and revenue systems will support both conservation goals and community benefits. Additionally, integrating climate change monitoring and mitigation into MPA planning is essential for long-term sustainability. Implementing these recommendations will significantly enhance the protection, resilience, and sustainable use of marine and coastal resources under MPRU's stewardship.

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1.0. INTRODUCTION

The report outlines the status of activity implementation in the Marine Parks and Reserves for the financial year spanning from July 2023 to June 2024. It encompasses both the planned activities carried out by the field centres (i.e., the individual MPAs) and the backlog activities executed at the Marine Parks and Reserves Unit Head Office (MPRU–HQs). All activities were aligned with the MPRU's Strategic Plan and the Management Plans for the individual MPAs. This report presents the achievements for the reviewed period, challenges faced, recommendations, and future directions. The table below lists the individual MPAs, which include three marine parks and fifteen marine reserves (Table 1), serving as the foundation for this report.

Table 1. A list of Marine Protected Areas (MPAs) under MPRU, their respective sizes and years of establishment.

S/N	MPA Name	Size (km ²)	Year
	3 Marine Parks		
1	Mafia Island Marine Park (MIMP)	822	1995
2	Mnazi Bay-Ruvuma Estuary Marine Park (MBREMP)	650	2000
3	Tanga Coelacanth Marine Park (TACMP)	552	2009
	3 Mafia Marine Reserves (MIMR)	29	
4	Shungimbili island	4.2	2007
5	Nyororo island	21	2007
6	Mbarakuni island	3.8	2007
	7 Dar es Salaam Marine Reserve system (DMRS)	42.68	
7	Fungu Yasini island	9.43	1975
8	Mbudya island	11.72	1975
9	Bongoyo island	7.53	1975
10	Pangavini island	1.72	1975
11	Makatube island	4.38	2007
12	Sinda island	6.41	2007
13	Kendwa island	1.49	2007
	4 Tanga Marine Reserves System (TMRS)	56.19	
14	Kwale island	12.13	2010
15	Mwewe island	0.4	2010
16	Ulenge island	3.16	2010
17	Kirui island	36	2010
18	1 Maziwe Marine Reserve	4.5	1975

2.0. IMPLEMENTED ACTIVITIES / ACHIEVEMENT

Each of the implemented activities is aligned with a specific objective it is designed to inform, and as they are defined in the MPRU Strategic Plan.

Objective 1: Protection, Conservation, and Restoration of Biodiversity and Ecosystem Processes in marine and coastal areas

The main objective of MPRU is to manage and conserve natural resources within the MPAs and adjacent areas under its jurisdiction, ensuring their sustainable use. Various activities were carried out, including surveillance and law enforcement patrols, support for Alternative Income Generating Activities (AIGAs), ecological monitoring of biophysical resources and condition, promotion of sustainable eco-tourism in the MPAs, and community engagement in the conservation and management of MPA activities.

Achievement 1.1: Conducting Surveillance and Law Enforcement Patrols

To ensure the protection and sustainability of its MPAs, MPRU continues to fulfil its responsibility of managing resources by conducting law enforcement, particularly patrol operations, to combat illegal and unsustainable resource use practices. These patrols also play a crucial role in raising awareness about compliance with Marine Parks and Reserves laws, regulations, and other guidelines. In addition to conducting law enforcement patrols, surveillance operations, especially on land, are carried out to gather valuable information that supports the patrols.

During the period from July to June 2023/2024, a total of **948 patrols** were conducted across all marine parks and reserves. These patrols led to the identification of 263 incidents of illegal and unsustainable MPA use practices, involving 953 individuals. Additionally, **6 criminal cases** were filed – all from the DMRS (see Table 2), and the culprits were collectively fined a total of **Tshs 51,384,000 as a penalty**.

Table 2. Law enforcement patrols, culprits, fines and criminal charges recorded during the period under review - July- June 2023/2024

MPA Name	# Patrols	# Culprits encountered	Penalty (Tshs)	Cases filed (File Case No.)
MIMP & MIMR	316	309	1,454,000	0
MBREMP	107	19	0	0
TACMP & TMRs & MAZIWE	408	462	46,330,000	0
DMRs	117	163	3,600,000	MUD/RB/94/2023 MUD/RB/113/2023 MUD/IR/117/2023 MUD/RB/179/2023 JB/RB/258/2023 MUD/IR/118/2023
TOTAL	948	953		6

From July to June 2023/2024, the most common illegal and/or unsustainable resource use practices recorded included fishing without valid license for fishing or operating a fishing vessel, daytime sardine fishing, the use of scuba gear for fishing “*known locally as Saratoga*”, fishing undersized fish, and the use of illegal fishing gear such as 20 monofilament nets, 4 mosquito nets, 4 ring nets, undersized mesh nets, beach seines, multi-mesh nets, and spear guns or harpoon guns. Other violations included illegal mangrove harvesting (226 pieces), illegal timber harvesting (84 pieces), dynamite fishing, and the capture of sea turtles. Additionally, confiscated items included 3 gillnets, 12 harpoon guns, 20 kg of cowries, 10 kg of dried sea cucumber, 3 kg of live sea cucumber, 2 kg of dried fish, and 10 kg of seaweed.

Table 3. Summary of Law Enforcement Information

Encountered and reported incidences	Number of culprits involved	Apprehended items
Use of illegal fishing gears	286	20 monofilament nets 4 mosquitoes nets 4 ring nets 14 beach seining 6 panels of undersized nets 32 spear guns 2 sail propelled fishing vessels 5 engines propelled fishing vessels 3 outboard engines of 15HP 2 outboard engines 40HP
Poaching in marine reserves (Fishing and other incidences)	446	
Unlicensed fishers	17	
Illegal mangroves harvesting	2	226 pieces of mangrove
Illegal timber harvesting	4	84 timbers confiscated
Burning of charcoal	1	One sack of charcoal apprehended
Coral mining	2	
Day time sardine fishing (illegal)	40	
Other unsustainable MPA use incidences	155	

Achievement 1.2: Control of MPA Access and Fisheries Resources Through Licensing

During the reporting period, a total of **411 Local Residents' User Certificates (LRUCs) and 302 Non-Resident Fishing Permits were issued**. LRUCs were provided to eligible local fishers without prior certification and to new entrants in the fishing sector, ensuring regulatory compliance and proper monitoring. This process also aids in managing and controlling non-resident fishing activities within MPAs, enabling accurate identification and effective collection of permit fees. The distribution of the issued LRUCs and non-resident fishing permits is detailed in the table below.

Table 4. The distribution of non-residents fishing permits and local resident's user certificates by MPA - issued during the period under review.

MPA Name	LRUC Issued	Non-residents fishing permit issued
MIMP	36	232
TACMP	15	-
MBREMP	360	70

Objective 2: Promotion of Community Participation in Planning, Development, and Management of the MPAs, and have Priority in the Resources Use and Benefit Sharing

Achievement 2.1: Primary Processing of MPAs' User Permits and Certificates

MPA communities, through the Village Liaison Committees (VLCs), participated in processing the MPA local residents' user certificates (LRUC) and non-resident fisher permits by screening applications to verify residency and/or compliance of the applicants. A total of **411 LRUCs** and **302 non-resident fishing permits** were issued during the period under review.

Achievement 2.2. Ecological Mapping of Resources' Areas

In an effort to ensure co-planning and co-management of marine and coastal resources, community members from TACMP Village Liaison Committee collaborated with the Mwambao Coastal Community Project, local fishers, and others in mapping the marine resources within and adjacent to TACMP.

Achievement 2.3: Collaborative Review of MIMP General Management Plan

MIMP-based local communities, in collaboration with other diverse MIMP stakeholders, participated in the review process of the expiring General Management Plan (GMP) as part of the renewal process for the 2023-2033 GMP. A total of **855 participants from various stakeholder groups took part**, including **329 women and 526 men**, sharing their reflections on the implementation of the expiring GMP and offering their concerns, comments, and opinions for the new GMP.

Achievement 2.4: Beach Monitoring for Solid Waste Management

Local communities, along with other stakeholders including staff members from MPA-based hotels, resorts, dive centres, and MPA staff, participated in keeping the beaches clean by regularly collecting solid wastes, particularly plastic wastes. A total of **5,492.2 kg of beach trash** was collected across all the MPAs under review, including **8,630 pieces of plastic waste**.

Achievement 2.5: Support for Less-Privileged MPA Families

In July 2023, MBREMP provided financial support (college fees) to a diploma student in Environmental Science and Coastal Resource Management at the Fisheries Education Training Agency (FETA) in Bagamoyo. As a result, the supported student successfully graduated with a diploma. The student, a young woman from a less privileged and somewhat vulnerable family in Mnuyo village within MBREMP, benefited from this support. This initiative reflects the benefit-sharing principle with local communities that MPRU embraces.

Objective 3: To Promote Community-oriented Education and dissemination of information on conservation and sustainable use of the Marine Parks and Reserves

Achievement 3.1: Environmental Education and Awareness for Local Communities, Schools, and Higher Learning Institutions

To ensure that communities and other stakeholders are well-informed and supportive of the conservation and management initiatives of marine protected areas, a range of outreach, education, and awareness programs were conducted during the period under review, reaching a wide variety of audiences. A total of 2,305 stakeholders were engaged in environmental education and awareness activities. These included:

- **165 primary and secondary school students** (45 in MBREMP, 30 in TACMP, and 80 in MIMP).
- **1,311 higher learning institution students** from Dar es Salaam, visited by DMRS.
- **21 community-based coastal zone managers** (including 18 Honorary Rangers for DMRS and 3 Beach Management Unit members from DMRS neighboring communities).
- **100 youths affiliated with the Tanzania ruling party CCM**, visited by MBREMP.
- **232 MIMP community members** (including 152 fishers and 157 community leaders, including village council members and VLCs).
- **72 VLC members and 5 local leaders** received co-management training, supported by the Mwambao Coastal Community Project in Tanga.
- **15 TACMP VLC members** participated in an exchange visit to the Mwambao Coastal Community Project in Kilwa to learn from the Collaborative Fisheries Management Areas (CFMAs) conservation management experience.
- **116 people from various TACMP stakeholder groups** were trained on the development of Community-based Marine Management & Action Plans.
- **250 people from Mafia District** and others from Kenya participated in a Glass Bottom Boat tour to the sea to gain environmental awareness and witness the natural beauty of underwater coral gardens.
- **6 community members** in MIMP were trained (with funding from the WWF Blue Action Fund project) on new fish catch data collection and management technology using a mobile phone application for entering fish catch data.
- **11 community members**, including DMRS Honorary Park Rangers, were trained in ecological data collection and monitoring skills.
- Community training on Environmental and Social Safeguards by WCS.

Environmental awareness campaign at Kibugumo Primary School in Dar es Salaam



Key topics discussed during these education, awareness, and capacity-building activities included the concept of Marine Protected Areas (MPAs) and management, marine biodiversity (including various fish species), basic marine ecology, the role and need for conservation environmental clubs, effective community-based MPA governance, ecotourism, environmental and social safeguards, fish catch data collection and management, community-based management plans development, and the sustainable use and co-management of marine and coastal resources.

Objective 4: Stimulate the Rational Development of Under-utilized Resources and Emerging Activities Sustainably

Actions aimed at achieving this objective include promoting alternative income-generating activities (AIGAs) and providing capacity-building opportunities for various income-generating initiatives.

Achievement 4.1: Promotion of Alternative Income Generating Activities (AIGAs)

During the period under review, **MBREMP** staff visited community groups involved in fish smoking, beekeeping, seaweed farming, pearl oyster farming, seaweed product processing, and **Village Community Banks (VICOBAs)**. These initiatives serve as alternative livelihoods to wild fishing, allowing MPA communities to improve household incomes while reducing pressure on fisheries and marine resources. The primary objective was to assess the progress of these activities, identify challenges, and discuss possible solutions. During these visits, group members were provided with relevant knowledge and technical skills. Additionally, the fish processing (smoking) group received **TZS 650,000 to repair their fish smoking facility**.

In **MIMP**, AIGA promotion included exposing communities to livelihood opportunities such as seaweed farming, tour guiding, boat rentals, as well as beekeeping, pearl oyster farming, and fish smoking - similar to initiatives in MBREMP. Future potential AIGAs also include agro-tourism and horticulture for vegetables and fruits. As part of this process, MIMP provided entrepreneurship training to youth, while some community groups, through the **WWF-BAF Project**, received soft loans through the Village Community Bank (VICOBAs) scheme to enhance the capacity and performance of their AIGA initiatives.

Achievement 4.2: Seaweed Value Addition Community Training

A total of **170 community members** from Village Community Banks (VICOBAs) and seaweed farming groups in MIMP received practical training on value addition for seaweed products. The training was jointly supported by **MPRU, JICA (with 30 trainees)**, and the **WWF Blue Action Fund Project (with 82 trainees)**. Participants learned to create a variety of seaweed products, including soap, oil, beverages, and cosmetics. The goal was to introduce communities to the potential of diverse seaweed products while improving product quality, marketability, and the overall economic viability across the value chain.

Achievement 4.3: Best Practices for Seaweed Farming and Management Training

A total of **94 community members** from Chemchem, Kiegeani, Kungwi, Miburani, and Mlongo villages in MIMP were successfully trained on best practices for seaweed farming and farm management. The training aimed to enhance seaweed productivity while minimizing both pre-harvest and post-harvest losses, thereby maximizing income and improving the economic viability of the entire value chain. As a result of the training, **90,420 kg of dried seaweed** was recorded, including 61,420 kg in November and 29,000 kg in December.

Objective 5: Facilitate and Promote the Development of Appropriate Eco-tourism

Achievement 5.1: Nine Tourism Promotion Events Conducted/Attended

During the period under review, the MPAs participated in and/or attended various events to promote themselves as key coastal tourism destinations. These events also aimed to raise public awareness about the importance of sustainable coastal ecotourism and the various conservation management activities within the MPAs. Additionally, the public was informed about the socio-economic and ecological roles of marine protected areas. The events attended included:

1. Sabasaba Trade Fair – 1st to 13th July 2023
2. Nane Nane Trade Fair – 31st July to 8th August 2023
3. World Tourism Day
4. Swahili International Tourism Expo – 21st to 23rd October 2023
5. Karibu Kusini EXPO
6. Tourism Business Network: Kili Fair 2024
7. World Ocean Day Workshop – 8th June 2024
8. Tanga Tourism and Investment Forum
9. Tanga Trade Fair and Tourism Exhibition – 28th May to 6th June 2024

Achievement 5.2: Enhancement of Ecotourism Infrastructure

During the review period, DMRS, Tanga, and MIMP successfully repaired and maintained various ecotourism infrastructure, equipment, and destinations across their respective locations. The activities undertaken included:

- Cleaning and clearing **nature trails** on Mbudya, Bongoyo, and Sinda Islands within the DMRS, as well as Toten Island in TACMP.
- Installation of **seven sign and notice boards** at Bongoyo Island.
- Establishment of a **checkpoint at DYC**, serving as a visitor attendance and revenue collection station.
- Construction of **five visitor resting areas** (Banda shades), equipped with 37 plastic chairs, 15 beach beds with mattresses, five wooden tables, two changing rooms, and one wooden storage facility.
- Installation of **three concrete notice boards** in the southern reserves of DMRS (Sinda, Kendwa, and Makatube islands), featuring clearly defined codes of conduct for appropriate and sustainable ecotourism.

One of the tourism facilities built at MBREMP



Achievement 5.3: Tourism Filming and Promotional Documentary Development

During the review period, the Safari Channel of Tanzania Broadcasting Corporation (TBC) TV visited Tanga to conduct recreational filming in TACMP and Tanga Marine Reserves. The filming was part of a documentary focused on the conservation initiatives of the Tanga-based MPAs, as well as the tourism potential, destinations, and products offered by these MPAs. This project served as both a conservation awareness campaign and a tourism promotion effort, aiming to garner public support for marine conservation while also creating a platform for generating tourism-related revenue to support the management of the MPAs.

Achievement 5.4: Awareness Campaign for Visitors' Boat Operators

A meeting focused on sustainable ecotourism awareness was held for tourism boat operators, who are key stakeholders in the DMRS. The agenda emphasized the importance of adhering to visitor management codes of conduct and safety protocols, highlighting the need to respect carrying capacity and implement effective time management practices to enhance customer care and satisfaction. In total, **11 boat operators** from five different tourism operation entities participated in the training session.

Achievement 5.5: Increased Tourist Visitation and Revenue Collections

During the review period, a total of **50,231 tourists visited the MPAs**, generating approximately **TZS 2,389,808,247.15 (around 2.389 billion)** in revenue from entry and user fees. Most MPAs experienced a consistent rise in both visitation numbers and revenue compared to the previous fiscal year 2022/2023 (see Table 4 for details).

Table 5. Comparative changes in number of visitors to and revenue collections among MPAs between July-June 2022/2023 and July-June 2023/2024.

MPA Name	July-June 2022/2023		July-June 2023/2024	
	# Visitors	Revenue (VAT inclusive)	# Visitors	Revenue (VAT inclusive)
MIMP & MIMR	6428	1,182,593,302.59	6817	1,386,324,938.74
TACMP, TMRS & MAZIWE	590	24,506,556.00	772	15,932,980.00
DMRS	32,444	710,849,634.00	41,463	970,830,555.17
MBREMP			1,179	16,719,773.24
			Total	2,389,808,247.15

Achievement 5.6: Collaborative Review of User Fee Regulations

User fee regulations are crucial for ensuring sustainable tourism and access to the biophysical resources of MPAs. These regulations also play a significant role in facilitating revenue collection, which supports conservation management initiatives within the MPAs. Co-developing these regulations is essential to balancing the competing objectives of various stakeholders while promoting the sustainable development of tourism businesses in the MPAs. In this context, on February 27, 2024, TACMP, with support from the MPRU Legal Office, convened a stakeholders' meeting to review the user fee regulations. Participants engaged in discussions, ultimately reaching a consensus on provisions to be incorporated into the amendments of the user fee regulations.

Objective 6: Facilitation of Research and Monitoring of Resources Use and Condition within the Marine Parks and Reserves

MPRU conducts timely environmental monitoring within its MPAs to gather evidence that environmental management targets are being achieved. This monitoring also enhances understanding of human impacts on these ecosystem

s. Typically, assessments focus on **coral cover, seagrass, mangroves, fish catch, and plastic pollution**.

Achievement 6.1: Assessment of Benthic Cover Status Completed

A coral reef assessment was conducted, with results presented as the percentage of coral cover. In Mafia, a comprehensive survey was performed as part of the biennial assessment supported by the WWF Blue Action Fund project. The site-specific results, illustrated in Figure 1 below, indicate that coral cover at each site exceeds 25%, which is considered a positive indicator of a healthy reef system. The highest coral cover was recorded at Kitutia, while Kisiwa Kikubwa had the lowest. Overall, the trend in coral cover shows a steady increase from the 2018 survey to the assessment conducted during the current review period.

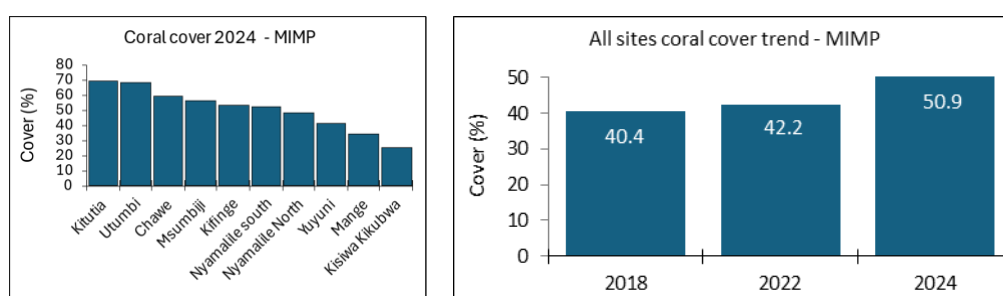


Figure 1. Comparison of coral cover (%) by sites and across three years survey in Mafia Island Marine Park.

Table 6 below presents the results of coral cover from the monthly and quarterly reef surveys. The **highest** overall coral cover was recorded at **MBREMP, reaching 66.66%**, followed by DMRS at 55.53%. The **lowest** coral cover was observed at **TACMP, with a value of 33.80%**. A survey focused on bleaching revealed that the highest level of bleaching, at 60%, was noted in MBREMP compared to the other MPAs. Additionally, bleaching mortality was reported at 60.0% specifically for MIMP.

Table 6. Coral cover (%) recorded across MPAs including their bleaching related health status

Average hard coral cover (%) by MPA		Level of coral bleaching				Monitored sites
MPA Name	HC (%)	Healthy (%)	Partly bleached (%)	100 % bleached	Bleaching mortality (%)	
MIMP	48.86		40.0		60.0	Chawe, Kitutia, Mange, Msumbiji, Small Rock, (M/Saidi), Kome
DMRS	55.53					Mbudya, Bongoyo, Sinda, Makatube.
MBREMP	66.66	15.0	25.0	60.0		Rasmo, Membelwa, Matenga
TACMP	33.80	22.9	31.2	45.9		Shenguwe, Taa, Makome Kwale, Maziwe

Achievement 6.2: Mangrove and Seagrass Status Assessment Completed

A rapid mangrove assessment conducted across the mangrove MPAs revealed minimal disturbance, with the rate of cutting and mortality remaining negligible. The density of adult trees, measured per 100m², was converted to density per m² (Table 7). TACMP exhibited the highest density of 0.5 adult trees per m², while MIMP recorded the highest density of 23.5 saplings per m², though it showed the lowest density for seedlings. Overall, the mangrove status was found to be in good condition, with minimal damage. Table 8 below illustrates a high density of seagrasses per m², indicating a healthy seagrass ecosystem that supports fisheries and other fauna productivity.

Table 7. Mangrove density (average number of stems per m²) and distribution by age class recorded in MPAs during 2023/2024

MPA Name	Average cover (density per m ²)				
	Adult	Sapling	Seedling	Cut tree	Dead tree
MIMP	0.2	23.5	0.1	0.0	0.1
TACMP	0.5	-	0.6	0.0	0.0
MBREMP	0.2	0.6	0.5	-	-

Table 8. Seagrass density (number of stipes/shoots per m²) recorded in MPAs

MPA Name	Average cover (density per m ²)	Sampled sites
MIMP	860	Chawe, Chole channel, Jiwe kubwa, Marimbani
TACMP	2,588	Kigombe, Makoma, Sinawe, Taa
DMRS	1,892	Mbudya, Bongoyo, Sinda, Makatube

Achievement 6.3. Fish Catch Assessment Completed

A fish catch assessment was conducted, with the results presented in terms of Catch Per Unit Effort (CPUE) to evaluate the ecological sustainability and economic viability of fisheries in the MPAs. The catch size was recorded by both number and weight, while fishing effort was measured by factors such as gear type, gear size and number, fishing grounds, and fishing capacity (including vessel type, number of fishers, and number of fishing trips). During the period under review, a total of **261,267 kg** (approximately 261 tons) of fin fish and octopus were harvested, generating a total revenue of **Tshs 1,887,524,475 (approximately Tshs 1.887 billion)** as shown in Table 9. However, despite the collection of catch-effort data, this report was unable to determine the maximum sustainable yield (MSY) for the fisheries operating within the MPAs. This is partly due to the lack of detailed information on critical factors such as species biology, ecosystem health, food availability, and management practices, as well as limited scientific capacity to integrate and analyze such information effectively.

Table 9. Fish catch assessment and fishing returns information summaries

MPA Name	Catch (kg) (Fin fish)	Catch (kg) Octopus/S hell fish)	Fishing gear frequency	Catch value (TShs)
MIMP	182,562		5,321	732,004,190
MBREMP	6,200	1,14.7		818,608,285
TACMP	72,505		10,082	336,912,000
Total				1,887,524,475

Achievement 6.4: Monitoring of Endangered, Threatened, and Protected Species (ETPs)

During the period under review, three major ETPs – whales, sharks, and sea turtles were monitored in MBREMP. The endangered humpback whales, sea turtle nests and their hatching success, and whale sharks were all observed. These species play vital roles in the marine ecosystem's food chain. However, their populations are threatened globally by hunting, coastal pollution, and habitat loss. To mitigate these threats and reduce mortality rates, MBREMP is tracking the trends and migratory patterns of these species, aiming to develop strategies for their conservation.

- ***Whales***

During the reporting period, MBREMP hosted a team of researchers from the Zanzibar Marine Mammals Research Association, who surveyed the population status of humpback whales and studied their migration patterns. The team discovered the unique diversity of marine mammals and their special interactions, prompting them to recommend that MBREMP adopt measures to promote responsible tourism. As a result, MBREMP staff and the research team created the first Code of Conduct for Whale Watching, which will be widely shared across Tanzania Mainland. This set of guidelines outlines the expected behaviours of visitors engaging in whale-watching tourism activities.

- ***Indian Ocean Humpback Dolphin***

In collaboration with **Saint Andrew University (UK)** and **RSK Consultancy**, TACMP conducted a visual survey of the endangered Indian Ocean Humpback Dolphin (*Sousa plumbea*), listed on the **IUCN Red List of Threatened Species**. The first survey took place between 23rd October and 11th November 2023, with a second survey scheduled for April 2024.

- ***Sea Turtles***

MBREMP, in partnership with **Wentworth Gas Ltd.**, is implementing a three-year sea turtle conservation project that is set to end in 2024. During the reporting period, MBREMP conducted monthly patrols to prevent sea turtle capture during nesting and relocated nests to safer locations above the highest tidal water marks. Four local community turtle officers assisted with turtle conservation activities, including locating and relocating nests. They were also involved in conducting educational and awareness meetings with various stakeholders. To support these efforts, a local Ngoma group, three media outlets, 40 T-shirts, and three large posters were distributed at events to raise awareness about the conservation and protection of endangered sea turtles.

In TACMP, a sea turtle hatching **success rate of 87.9%** was recorded, with **356 baby turtles** successfully reaching the ocean from a total of 405 laid eggs.

Achievement 6.5: Beach Monitoring for Solid Wastes Conducted

Beach cleaning has become a regular activity in Tanzania's Marine Protected Areas (MPAs), aimed at keeping the shores free from solid waste, particularly plastic debris, while also protecting wildlife from accidental ingestion that could lead to their death. During the review period, solid waste was collected and quantified by weight and the number of plastic items. In total, **8,630 pieces of plastic** were collected, with waste distribution among the various MPAs detailed in Table 10. The collected waste was categorized by brand and manufacturer, which is crucial for identifying the main contributors to pollution.

Table 10. Beach trash collected from various MPAs presented in terms of number of pieces and weight

MPA Name	# beach trash pieces	Weight of beach trash (Kg)
TACMP	1912	
DMRS	4,513	3,949.0
MIIMP	2,205	1,755.4
Total	8,630	5,704.4

This information may facilitate discussions with these stakeholders regarding potential collaborations on pollution management. Engaging these groups could lead to their financial or material support for pollution control initiatives. The table below outlines the types of plastic collected, including plastic bottles, nylon, rubber, syringes, glasses, and more.

Table 11. Plastic pollutants by Brand name as collected from the MPAs during the period under review.

S/N	Brand	Quantity (Pieces per 25 m ²)	S/N	Brand	Quantity (Pieces per 25 m ²)
1	Mo extra energy drinks	2,532	35	Reflection Aqua Pvt. Ltd.	2
2	Hill drinking water	567	36	Tanzania Distilleries Ltd.	2
3	Afya drinking water	543	37	Tasmin Beverage Company	2
4	Azam energy drinks	522	38	Bravely Beverage Ltd	1
5	Uhai drinking water	349	39	Eromax	1
6	Bakhresa Group	835	40	Gayant Distillery	1
7	Metl Group	335	42	Keds Tanzania Company Ltd.	1
8	Water Com Limited	265	43	Kiss Kids Company	1
9	The Coca-Cola Company	228	44	Komo Industries Ltd	1
10	U Fresh Ltd.	140	45	Niceone Company	1
11	PepsiCo	86	46	Serengeti Breweries Ltd.	1
12	Sayona Food Products Limited	45	47	Sosiete de Janisarl	1
13	Hakika Breweries Limited	51	48	Unilever	1
14	Bonite Bottlers Co Ltd	38	49	Coca cola	37
15	Salsabil Beverage Co. Ltd	32	50	Anjali	56
16	Afiya Ltd.	26	51	Pepsi	8
17	Lotte Corporation.	24	52	Mo energy	35
18	KIBO Spirit Co Ltd	20	53	Azam	175
19	One Product Bottles Ltd	20	54	Afya	283
20	RAM	20	55	Afia	23
21	Aden Beverage Co.	18	56	Zanz drop	11
22	Tasnim Industries	18	57	Highlife	4
23	Keds Tanzania Company Ltd	15	58	Other bottles	103
24	Engarafado Products Limited	13	59	Yu fresh	20
25	Hill company	10	60	Straws	87
26	Mega Beverage Co.Ltd	10	61	K- Vant	3
27	Sayona Food Products Ltd	20	62	Konyagi	2
28	Diproduksi oleh	9	63	Shoes	130
29	Nosafecigarette	8	64	Clothes	240
30	Unono Beverages	8	65	Foam	135
31	Neelkanth Co Ltd	5	66	Others	436
32	Global Pte Ltd	4	67	ITG Brand	2
33	Mega Beverage Co. Ltd	4	68	Mayora Indah Tbk	2
34	Grupo Modelo	2			

Objective 7: Conservation and Protection of Historic and Cultural Heritage Sites of the MPAs residents

Achievement 7.1: Conservation of Historic Ruins at Kua in MIMP and Toten Island in TACMP

In collaboration with the Ministry of Natural Resources and Tourism – National Museum of Tanzania (NMT), MIMP successfully completed Phase III of the restoration project at the Ancient Swahili Ruins of Kua, with a primary focus on site interpretation. MIMP continued its partnership with NMT and the Kua Ruins Conservation Group from Juani village to maintain the nature trails and preserve the rehabilitated ruins, enhancing accessibility for visitors.

Additionally, approximately 900 meters of nature trails leading to the historic ruins on Toten Island in TACMP, including the mosque, prison, and the German tombs, were cleared of shrubs and bushes. This effort ensured that the trails and tombs remain clean and accessible to visitors.

3.0. CHALLENGES AND RECOMMENDATIONS

Despite the achievements outlined above, the implementation of activities faced various challenges, including operational and management difficulties. The key challenges and proposed recommendations are as follows:

3.1 Poaching, Illegal and Unsustainable Resource Use Practices

Poaching within fully protected marine reserves and illegal, unsustainable resource use practices in marine parks continued to be recorded, with some MPA locations experiencing alarming levels of these activities. Issues such as unlicensed fishing, illegal mangrove harvesting, and the use of illegal fishing gear persist. The increased human population, particularly in urban centers like Tanga, Dar es Salaam, and Mtwara, and the growing market demand for fisheries resources, are major drivers of this pressure. As a result, fishers are often tempted to resort to unsustainable and illegal methods.

Recommendation: *Enhanced monitoring, control, and surveillance are needed to identify areas prone to resource use malpractices. A strategic plan for adaptive interventions should be developed, which includes intensifying law enforcement operations and enhancing education and awareness programs for MPA users. Strengthening community-based monitoring, control, and surveillance (MCS) through the involvement of Beach Management Units (BMUs), Village Liaison Committees (VLCs), and Honorary Rangers is also recommended.*

3.2 Inadequate Institutional Capacity

Inadequate institutional capacity continues to hinder the effective and efficient performance of the MPAs. This includes a shortage of financial resources to support various conservation management activities such as field operations, securing and maintaining appropriate MPA equipment and infrastructure, and a lack of human resources to fully implement planned activities. Human resource gaps are often caused by the transfer or resignation of experienced staff, leaving less-experienced employees behind.

Recommendation: *Capacity building is essential, focusing on skills development, staff recruitment, and increased participatory engagement with stakeholders. This will not only fill staffing gaps but also enhance the effectiveness and efficiency of the existing workforce.*

3.3 Use of Outdated Management Plans

Some MPAs are still operating under outdated management plans, which do not fully reflect current needs and challenges. DMRS for instance has not had its management plan reviewed. MIMP management plan is currently in a review process, while MBREMP has not started reviewing its management plan.

Recommendation: *It is advised to incorporate the South Reserves into the upcoming review of the DMRS General Management Plan (GMP). Funding for the development of the new DMRS GMP has been secured through the UNEP Nairobi Convention and will commence once the funds are released. The ongoing review of the MIMP management plan should be finalized promptly to facilitate the effective implementation of its operational and management activities in line with current conditions. Additionally, MBREMP should make it a priority to review its management plan without delay.*

3.4 Inadequate Capacity to Address Socio-Ecological Impacts

MPAs lack the capacity to effectively deal with socio-ecological impacts from natural disturbances, such as coral bleaching induced by rising temperatures in 2023 and the persistent beach erosion at Bongoyo and Sinda Islands caused by extreme weather and high-energy tidal waves. Coral bleaching results in habitat loss and reduced reef productivity, while beach erosion leads to the loss of nearshore settlements, crops, and disrupts tourism by eroding the sandy beaches, diminishing their aesthetic appeal.

Recommendation: *Building capacity for monitoring climate change impacts and exploring potential mitigation options is recommended. Additionally, it is crucial to seek external technical and financial support to prepare for emergencies and mitigate these impacts.*

3.5. Invisible Boundaries of the MPAs to Users

The boundaries of all Marine Protected Areas (MPAs) have not been sufficiently marked with buoys to regulate user access, leading to frequent challenges from users, especially fishers who engage in poaching within these areas.

Recommendation: *It is essential to prioritize the acquisition of demarcation equipment and the installation of buoys around MPA boundaries to enhance control and enforcement. Additionally, exploring the use of locally sourced, durable materials could help minimize the costs associated with importing and maintenance of such equipment.*

3.6. Weak Tourism Infrastructure and Revenue Collection Mechanism

The internet connectivity at visitor attendance and revenue collection points remains consistently poor, which disrupts the efficient collection of user fees through the electronic cash collection system. On the other hand, there is still a pressing need for the installation and replacement of additional mooring buoys, especially in Chole Bay and around the Mbarakuni and Nyororo Marine Reserves.

Recommendation: *MPRU should strengthen the efficiency of its current billing system for revenue collection by upgrading collection equipment and internet access. Furthermore, MPRU should explore the implementation of an e-commerce payment system to facilitate direct payments from tour operators and customers globally. There is encouraging interest from some visitors and tour operators in utilizing this service. Additionally, prioritizing the installation of more mooring buoys at key dive and snorkelling locations, such as Chole Bay in MIMP and around the Mbarakuni and Nyororo Marine Reserves in Mafia, is essential.*

4.0. CONCLUSION

In conclusion, addressing the challenges faced during the 2023/2024 financial year requires a comprehensive and coordinated approach. Strengthening law enforcement, updating management plans, and building institutional and community capacity are critical for improving the effectiveness of MPAs management. Enhancing surveillance, clarifying MPA boundaries, and investing in tourism infrastructure and revenue systems will support both conservation goals and community benefits. Additionally, integrating climate change monitoring and mitigation into MPA planning is essential for long-term sustainability. Implementing these recommendations will significantly enhance the protection, resilience, and sustainable use of marine and coastal resources under MPRU's stewardship.