THE REVOLUTIONARY GOVERNMENT
OF ZANZIBAR

Zanzibar Multisectoral Drowning Prevention National Action Plan (ZDPNAP) 2024-2028

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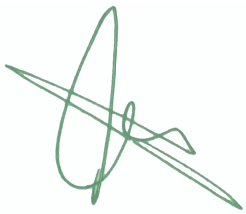
LIST OF ACRONYMS AND ABBREVIATIONS

1.	FBOs	Faith Based Organization
2.	JKU	Jeshi la Kujenga Uchumi Zanzibar
3.	KMKM	Kikosi Maalum cha Kuzuia Magendo Zanzibar
4.	KVZ	Kikosi cha Volunteer Zanzibar
5.	MOH	Ministry of Health
6.	MoBEF	Ministry of Blue Economy and Fisheries
7.	MoT	Ministry of tourism and Heritage
8.	MoVET	Ministry of Education and Vocational Training
9.	NGOs	Non-governmental Organization
10.	RRT	Rapid Response Team
11.	SDMC	Shehia Disaster Management Committee
12.	SOG	Standard Operating Guidelines
13.	SVPO	Second Vice President's Office
14.	TMA	Tanzania Meteorological Agency
15.	TPDF	Tanzania People's Defense Forces
16.	TPF	Tanzania Police Force
17.	TRCS	Tanzania Red Cross Society
18.	UNICEF	United Nations Children's Fund
19.	UNDP	United Nations Development Programme
20.	WFP	World Food Progromme
21.	WHO	World Health Organization
22.	ZAWA	Zanzibar water Authority
23.	ZDCS	Zanzibar Disaster Communication strategy
24.	ZPRP	Zanzibar Preparedness and Response Plan
25.	ZMA	Zanzibar Maritime Authority

Forwards

Zanzibar is vulnerable to several natural and man-made disasters. The Zanzibar Disaster Management Commission (ZDMC), in the Second Vice President's Office, Policy, Coordination and House of Representatives is responsible for identifying and analyzing potential hazards but also preparing plans for effective response to disasters, to save lives and protect property.

This Zanzibar multi-sectoral drowning prevention action plan sets forth appropriate actions to be taken to prevent, mitigate, prepare, and respond to including potential or imminent threats of any event related to drowning incidents. The plan aims to facilitate the coordination for the delivery of resources and services necessary to deal with the consequences of any emergency from drowning. The plan further describes the strategic actions, and organizational and specific assignments of responsibilities to various departments, government agencies, NGOs, CBOs, UN agencies, and the private sector. This plan was developed through a review of documents and a consultation process involving key stakeholders from various government departments and agencies, Non-State Actors (NSAs), UN agencies, private sectors, and volunteer organizations. The Second Vice President's Office, Policy, Coordination and House of Representatives appreciates the cooperation and support from all departments and agencies contributed to the development of the plan. Special thanks go to the United Nations, World Health Organization (WHO) for providing financial and technical support for the development of this plan.



Hon. Hamza Hassan Juma
Minister of State,

The Second Vice President's Office, Policy,
Coordination and House of
Representatives,
Zanzibar.

Acknowledgement

Drowning is among marine disasters reported worldwide in 2016, 4.1 drowning deaths occurred per 100 000 persons accounting for an estimated 302 932 deaths, of which 90% occurred in low-income and middle-income countries. Zanzibar has no exception. Drowning related deaths cases are reported frequently. The two unforgettable marine accidents in Zanzibar consequently occurred in 2011 and 2012. The accidents involved two large ferry ships (Spice Islander and Skagit) operating between Zanzibar (both Unguja and Pemba) and Dar-es-salaam, resulting in substantial deaths and loss of thousands of people. The sinking of Spice islander caused 1529 deaths and 941 missing, whereas the sinking of Skagit caused 293 deaths and 154 missing.

The Revolutionary Government of Zanzibar's disaster management policy emphasizes creating safe and resilient communities to all major and minor disasters. The goal is to make the Zanzibar community cope with any disasters. However, the current situation lacks the necessary strategies to manage drowning disasters in the islets. Therefore, this five-year Zanzibar multi-sectoral drowning prevention action plan (2024-2028) sets out to provide a road map for eliminating enabling factors, prevention, and response to drowning in Zanzibar. Special thanks to the Second Vice President's Office, Policy, Coordination and House of Representatives for the leadership in coordinating the development of this plan. My gratitude also goes to all sectors, offices, departments, and authorities that were actively engaged during the development of this plan. Also, I would like to recognize the technical and financial assistance of WHO, without their support this plan would not be available today. Finally, a special thanks to my team from the Disaster Management Commission and technical task force PANJE Project for their excellent support during all stages of the development of this plan.

We look forward to your continued engagement in the successful implementation of this five-year Zanzibar multi-sectoral drowning prevention action plan (2024-2028).

Dr. Islam Seif Salum
Principal Secretary,

The Second Vice President's Office, Policy,
Coordination and House of
Representatives,
Zanzibar.

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS ii

Forwards iii

Acknowledgement iv

SECTION ONE 1

1. **Background** 1

1.1. Organization Description of Disaster Management in Zanzibar 1

1.2. Alignment with National and International Goal. 3

1.2.1. National Alignment 3

1.2.2. International Alignment 4

1.3. Prevention Drowning Implementation Guide 8

1.3.1. Strategies 8

1.3.2. Intervention 8

SECTION TWO 9

SITUATION ANALYSIS 9

2.1. Zanzibar Ocean-Related Drowning Incidents 9

2.2. Zanzibar Inland Drowning. 10

2.3. SWOC Analysis 12

SECTION THREE 16

INTERNAL PROCESS 16

3.1. Funding of Zanzibar Multi-Sectoral Drowning Prevention Action Plan 16

3.2. Communication mechanisms of Zanzibar Multi-Sectoral Drowning Prevention Action Plan 16

SECTION FOUR 17

4.1. Methodology of Development Zanzibar Multi-Sectoral Drowning Prevention Action Plan 2024-2028 17

4.2. Objective and Targets for drowning Prevention 17

4.3. Strategic Areas of Intervention 20

SECTION FIVE 27

5. Funds Needed for Thematic Area for Zanzibar Multi-Sectoral Action Plan of Drowning Prevention 2024-2028 27

SECTION SIX 29

6. Monitoring, Budget of Activities and Expected Result 29

SECTION SEVEN 44

7. Strategic Plan Risks and Its Mitigation Plan 44

SECTION EIGHT 46

8. Implementation of Zanzibar Multi-Sectoral Drowning Prevention Strategy 2024-2028 46

ANNEX 1. 54

SECTION ONE

1. Background

The Zanzibar risk profile and mapping of 2018, 2021, and 2023 revealed that the islets have a higher risk likelihood and experience several hazards that cause losses, death, and destruction. The recent risk profile and assessment conducted in 2023 priorities marine accidents is among the higher risk hazards facing Zanzibar annually[1]. According to an assessment of disasters associated with the blue economy conducted by the Disaster Management Commission, drowning was among the major marine-related disasters in Zanzibar. This Zanzibar multi-sectoral drowning prevention action plan provides the strategy and intervention for the prevention and response of drowning in Zanzibar.

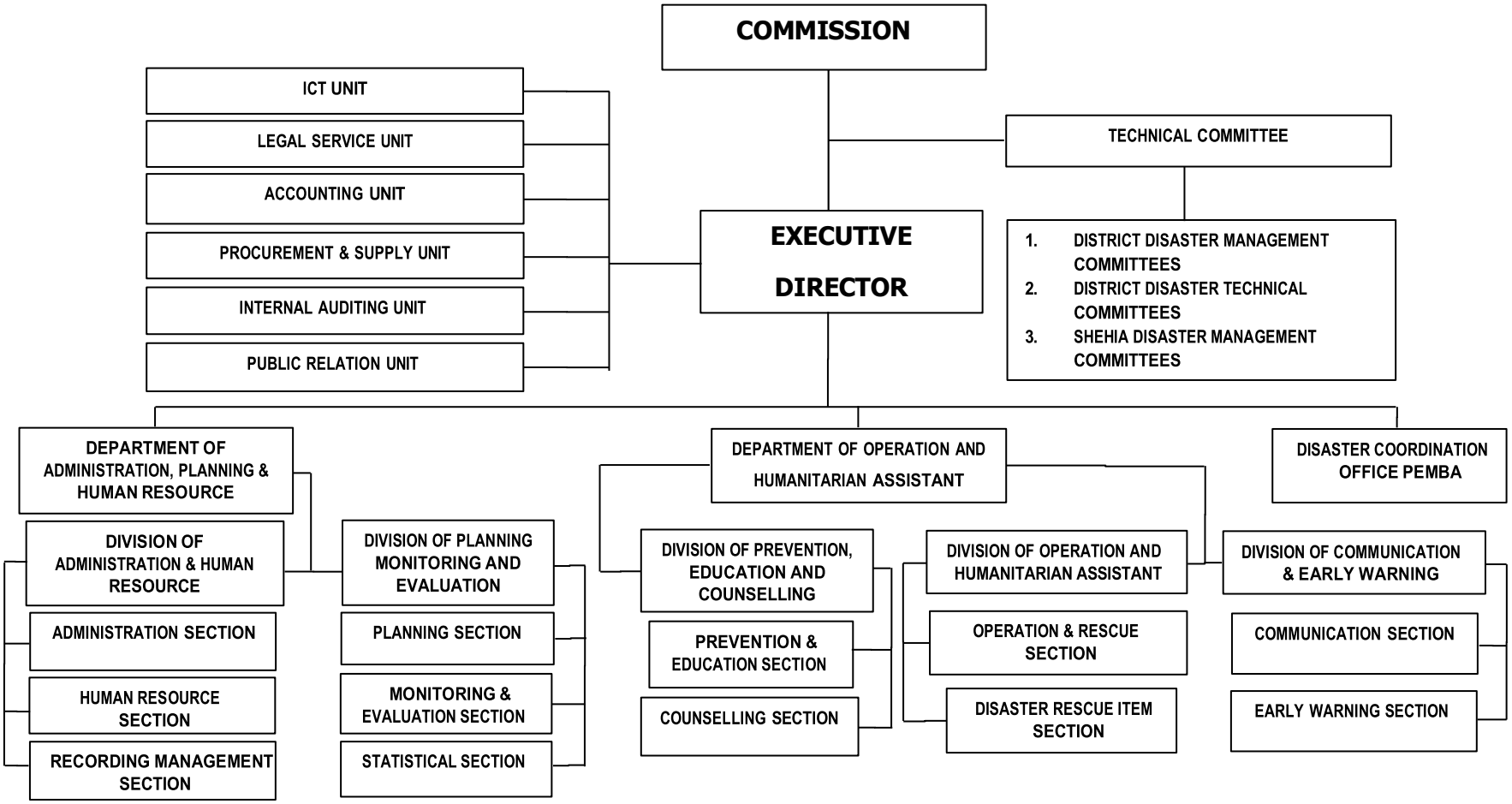
1.1. Organization Description of Disaster Management in Zanzibar.

The second vice presents office, policy, coordination, and house representative is the key responsible for coordination and direction of all emergency response activities, including making sure that the response is governed by the applicable legal framework of the Disaster Risk Reduction and Management Act, No. 1, 2015. The act provides powers to DMC to coordinate, direct and control all activities on the management of minor and major disasters. The commission is under the Second Vice President's Office (SVPO) and its composition and functions are detailed in the Act. The commission is the principal actor and the overseer of disaster management and risk reduction processes in Zanzibar. Also, the Act establishes the Secretariat of Commission which is headed by the Executive Director and structurally allows for the Secretariat to be divided into divisions (fig. 1). On the other hand, the Act establishes a vertical and horizontal integrated framework of Committees. The vertically integrated structure for the committees is such that, at the country level is the Technical Committee, at the district level are the District Disaster Management Committee and District Disaster Management Technical Committee, and at Shehia level is the Shehia Disaster Management Committee. On the other hand, the horizontal structure of the committees reflects their composition (members of committees). The committees draw their members from government ministries and departments, but also from non-governmental organizations such as civil societies, security, NGOs, and CBOs. The detailed composition and functions of the committees are stipulated in the Act No 1 of 2015.[2]

[1] Zanzibar Risk Profile of 2018, 2021 and 2023

[2] Zanzibar Disaster Act No, 1 of 2015.

DMC ORGANIZATIONAL STRUCTURE



Proposed structure for Drowning Prevention Coordination

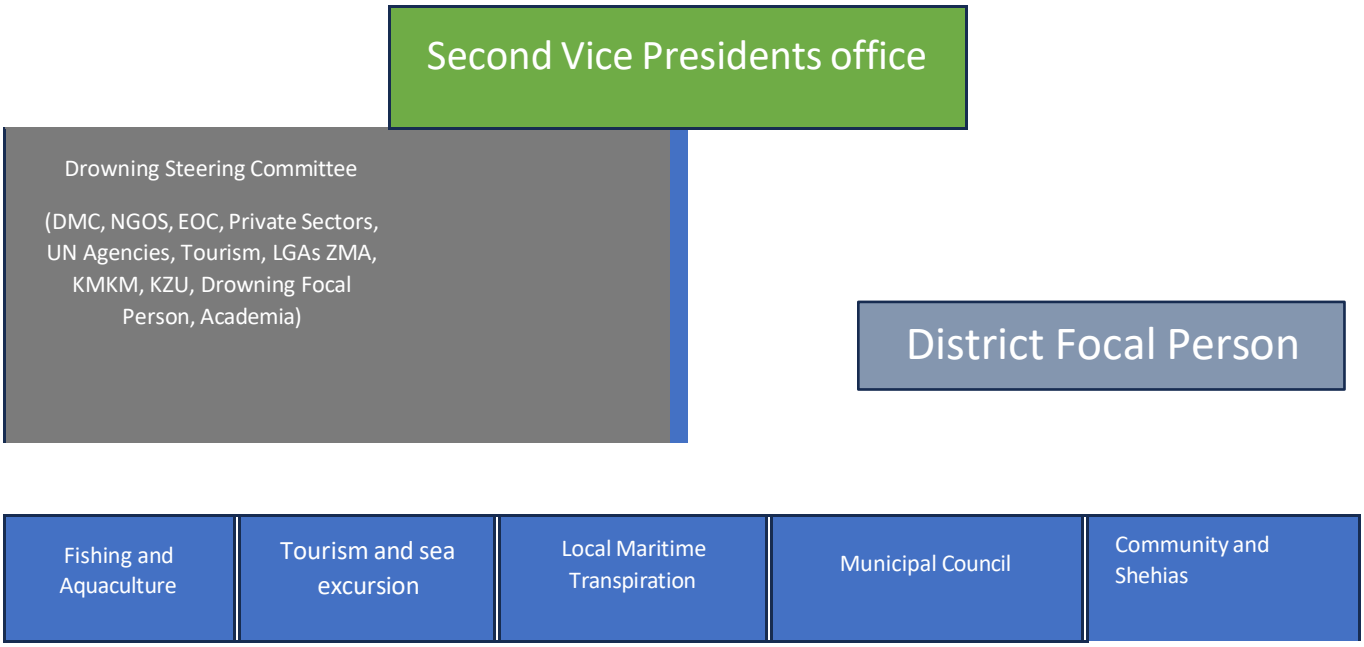


Figure 2: Proposed structure for Drowning Prevention

1.2. Alignment with National and International Goal.

Zanzibar Multisectoral Drowning Prevention National Action Plan (ZDPNAP) 2024-2028 is developed based on National priorities and Plans. The Strategic plan reviews the other international, national plan, policy, act, and legislation. During development of this Plan the following documents are reviewed.

1.2.1. National Alignment

i. CCM Manifesto 2020-2025, describe the prioritization of Disaster Risk Reduction through emphasizing the development of national and district emergency preparedness and response plan toward effective disaster risk reduction and management. The CCM manifesto described increasing awareness, early warning dissemination and provision of emergency response and relief aid at all villages when the disaster struck.

ii. Zanzibar Development Plan (ZADEP) 2021-2026. The Plan prioritizes safety, security, and disaster management as key to the development of Zanzibar. The plan highlights that the stable of nation should have strong disaster management framework with strong preparedness and response mechanism that operate at national and district level.

iii. Zanzibar Vision 2050: The vision shows the aspiration of Zanzibar is to be a nation with a strong disaster management framework and capacity. The vision's strategic direction is to maintain a safe and secure environment for peaceful living in Zanzibar, supported by effective, efficient, and resilient disaster management mechanisms.

iv. Zanzibar Emergency Preparedness and Response Plan (ZEPRP), 2021 which describes areas that need to be prepared for the management of disaster. It describes the roles of each agency during preparedness and response.

v. Zanzibar Blue Economy Policy of 2022 describes the necessity of ocean governance on marine resources utilization. The policy describes strategic intervention such as safety management in blue economy priority pillars of fisheries and aquaculture, energy, and maritime transportation.

vi. Zanzibar Fisheries Policy and its Implementation Strategy of 2022. The strategy highlights necessity of safety in the fisheries sector. It describes the importance of safety management in fisheries development.

1.2.2. International Alignment

i. Sendai Framework for Disaster Risk Reduction (2015-203)

The Sendai Framework for Disaster Risk Reduction 2015-2030 was adopted at the Third UN World Conference in Sendai, Japan, on March 18, 2015. It is the outcome of stakeholder consultations initiated in March 2012 and inter-governmental negotiations from July 2014 to March 2015, supported by the United Nations Office for Disaster Risk Reduction at the request of the UN General Assembly. The framework provides four priorities understanding disaster risk, strengthening disaster risk governance to manage disaster risk, investing in disaster risk reduction for resilience, and Enhancing disaster preparedness for effective response, and "Build Back Better" in recovery, rehabilitation, and reconstruction[3]. Therefore, the framework provides a baseline for enhancing intervention for disaster risk reduction at local levels through strengthening strategy and intervention such as Plans, policies, SOPs, and strategies.

ii. Global Drowning Prevention **Resolution adopted by the General Assembly on 28 April 2021**

[3] **Sindai Framework for Disaster Risk Reduction (2015-203)**

The general assembly on 28th April 2021 reached a global resolution of drowning prevention. The assembly recognizes drowning as a public health emergency which needs multi-sectoral efforts of management. The assembling *affirming* that drowning is preventable and that scalable, low-cost interventions exist, and emphasizing the urgency of developing an effective and coordinated response among relevant stakeholders in this regard[4],

1. *Encourages* all Member States, on a voluntary basis, to consider taking the following actions, in accordance with national circumstances:
    a. Appoint a national focal point for drowning prevention.
    b. Develop a national drowning prevention plan, containing a set of measurable targets according to their needs and priorities, including as part of wider national health plans, policies, and programmes.
    c. Develop drowning prevention programming in line with World Health Organization recommended interventions, namely, barriers, supervision, swim skills, rescue, and resuscitation training, boating regulation and managing flood risk and resilience.
    d. Ensure enactment and effective enforcement of water safety laws, across all relevant sectors, in the areas of health, education, transportation and disaster risk reduction, where appropriate, and consider establishing appropriate and proportionate regulations where they do not yet exist.
    e. Include drowning within civil registration and vital statistics registers and aggregate all drowning mortality data into national estimates.
    f. Promote drowning prevention public awareness and behavior-change campaigns.
    g. Encourage integration of drowning prevention within existing disaster risk reduction programmes, especially in communities at risk of flooding and coastal inundation, including through international, regional, and bilateral cooperation.
    h. Support international cooperation by sharing lessons learned, experiences and best practices, within and among regions.
    i. Promote research and development of innovative drowning prevention tools and technology, and to promote capacity-building through international cooperation, for developing countries.

[4] **Global Drowning Prevention Resolution adopted by the General Assembly on 28 April 2021**

j. Consider the introduction of water safety, swimming and first aid lessons as part of school curricula, consistent with the Member State's governance framework for education.

2. *Invites* the World Health Organization to assist Member States, upon their request, in their drowning prevention efforts and to coordinate actions within the United Nations system among relevant United Nations entities, including the United Nations Children's Fund, the Office for the Coordination of Humanitarian Affairs of the Secretariat, the United Nations Office for Disaster Risk Reduction and the United Nations Development Programme.
3. *Decides* to proclaim 25 July as World Drowning Prevention Day.
4. *Invites* all Member States, relevant organizations of the United Nations system and other global, regional and subregional organizations, as well as other relevant stakeholders, including civil society, the private sector, academia and individuals, to observe World Drowning Prevention Day annually in an appropriate manner and in accordance with national priorities, through education, knowledge-sharing and other activities, in order to raise awareness of the importance of drowning prevention and the need for urgent coordinated multisectoral action to improve water safety, with the aim of reducing preventable deaths;
5. *Stresses* that the cost of all activities that may arise from the observance of World Drowning Prevention Day should be met from voluntary contributions, in accordance with national capacity.
6. *Invites* the World Health Organization to facilitate the observance of World Drowning Prevention Day, in collaboration with other relevant organizations, mindful of the provisions contained in the annex to Economic and Social Council resolution 1980/67.
7. *Requests* the Secretary-General to bring the present resolution to the attention of all Member States, the organizations of the United Nations system and civil society organizations for appropriate observance.

iii. WHO Resolution adoption on *Accelerating action on global drowning prevention*

The Executive Board, having considered the report by the Director-General, decided to recommend to the Seventy-sixth World Health Assembly the adoption of the following resolution. The WHO assembly emphasizes that drowning prevention requires the urgent development of an effective coordinated response among relevant stakeholders in this regard,

1. WHO to assist Member States, upon their request, in their drowning prevention efforts, and further accepts for WHO to coordinate actions within the United Nations system among relevant United Nations entities and to facilitate the observance of World Drowning Prevention Day 5 on 25 July each year.
2. To assess their national situations concerning the burden of drowning, ensuring targeted efforts to address national priorities, including through the appointment of a national drowning prevention focal point, as appropriate, and assuring that resources available are commensurate with the extent of the problem.
3. To develop and implement national multisectoral drowning-prevention programmes, with a focus on community, including emergency response planning and linkage with community first aid response and emergency care systems, as appropriate, in line with WHO recommended interventions, particularly in countries with a high burden of drowning.
4. To ensure that policy planning and implementation across sectors such as health, education, environment, climate adaptation planning, rural economic development, fisheries, water transport and disaster risk reduction, particularly policies that address the underlying drivers of increased flood risk, are undertaken in a manner that reduces drowning risks.
5. To promote drowning prevention through community engagement and public awareness and behavioural change campaigns.
6. To promote capacity-building and support international cooperation by sharing lessons learned, experiences and best practices, within and among the regions.
7. To encourage research on the context and risk factors for drowning, facilitate adaptation of effective drowning prevention and safe rescue and resuscitation measures that can be applied in local communities, and evaluate the effectiveness of drowning-prevention programmes.
8. To prepare a global status report on drowning prevention by the end of 2024 to guide future targeted actions.
9. To provide Member States, upon their request, with technical knowledge and support to implement and evaluate public health, urban and environmental policies and programmes for drowning prevention and mitigation of its consequences.
10. To foster capacity-building and facilitate knowledge exchange among Member States and relevant stakeholders, promoting dissemination and uptake of evidence-based guidance for drowning prevention.

11. To report on progress in the implementation of this resolution to the Health Assembly in 2025, to include reporting on the global status report on drowning prevention and reflect on contributions[5].

1.3. Prevention Drowning Implementation Guide

The WHO prevention drowning implementation guide prioritizes the following strategies and interventions**.**

1.3.1. Strategies

- Promote multisectoral collaboration.
- Strengthen public awareness of drowning through strategic communications.
- Develop a national water safety plan.
- Advance drowning prevention through data collection and well-designed studies

1.3.2. Intervention

- Install barriers controlling access to water.
- Provide safe places (for example a day-care centre) away from water for preschool children, with capable childcare.
- Teach school-age children swimming and water safety skills.
- Train bystanders in safe rescue and resuscitation
- Set and enforce safe boating, shipping, and ferry regulations.
- Build resilience and manage flood risks and other hazards locally and nationally.

Then these strategies and intervention are localized based on Zanzibar situation into three main Pillars of enabling environment, prevention, and response.

[5] WHO Adoption of Drowning Prevention
[6] WHO. 2017. **Prevention drowning implementation guide**

in their travelling[11]. Recently collected data showed that about 19 people was die in 2021 and 25 people in 2022[12].

2.2. Zanzibar Inland Drowning.

Inland drowning involves the drowning in swimming pools, wells, stagnant water in dams of holes, streams, small rivers, and storm water drainage. Zanzibar experiences several cases of inland drowning particularly during the rainy season. The inland drowning includes swimming pools, stagnant inland water in holes, small dams, and storm water drainage systems particularly during the rainy season. For example, for the year 2021 to 2022, seven people (7) are reported to die due to drowning in water stagnant inland such as ponds and storm water drainage system while 12 people died in digging wells[13]. However, the number could be underestimated considering the poor vital registration and community reporting system in Zanzibar.

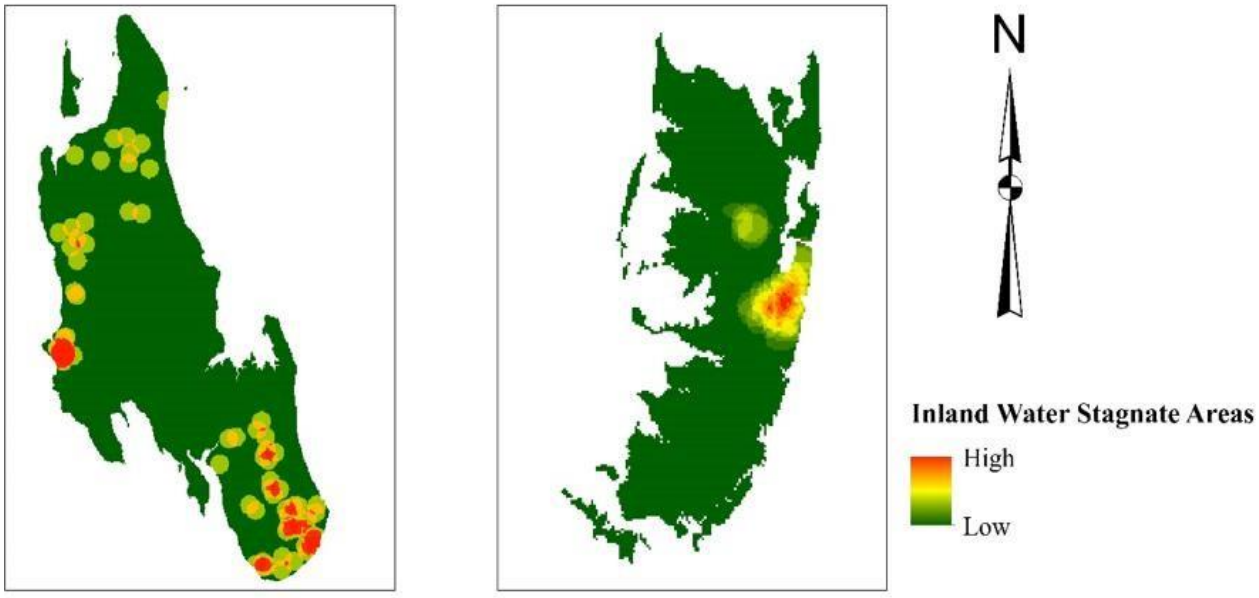


Figure 1. Figure show inland water stagnate area in Unguja and Pemba.

Zanzibar has about 398 hotels graded from one to five star[7]. About 90% of these hotels have swimming pools with various depths and sizes. Swimming pools drowning are among drowning incidents that have been reported in hotels and residential areas due to limited monitoring of swimming pools. This situation analysis

[11] Statics Abstract, 2022
[12] Data of drowning. 2023
[13] KZU. 2023. Data of Drowning Related Death

reviews the existing enabling environment, prevention, and response capability to manage the drowning in Zanzibar.

The situation found the large population of Zanzibar are vulnerable to drowning, this is due to higher level of exposures through daily life activities such as socio-economic activities, transportation, and geographical location. Therefore, the situation analysis categorizes the following risk population.

Group of Risk Population	Factors
Higher Risk	
Seaweed Farmers	Limited of swimming skills, mostly are aged women
Children 1-15 years Old	Limited supervision, Limited swimming skills, Presence of Inland stagnant water, and ocean beaches
Smalls islets locality	Extremely uses of Local boats, Limited uses of lifejacket, Overloading of local boats, No supervision and law enforcement
Fishermen with Vessels	Limited uses of Limited uses of lifejacket, Overloading of local boats
Foot Fishermen (Those who fish in low tides)	Limited uses of Limited uses of lifejacket
Tourist	Limited uses of Limited uses of lifejacket, Overloading of local boats, surfing and using substandard local boats.
Moderate Risk	
Formal Passenger Boat	Regulation and follow up of SOPs
Low Risk	

The situation analysis revealed that, drowning disaster in Zanzibar mainly influenced the presence of an enabling environment, limited prevention capacity and low response capability to respond to drowning incidents. The annex 1 provides a detailed description of drowning situations in Zanzibar.

Therefore, this Zanzibar Multi-sectoral coordination of drowning prevention national action plan provides the clear strategies and intervention for drowning prevention in Zanzibar. The plans provide a key area for intervention, strategic objectives, planned activities and responsible agencies. Additionally, it provides clear direction for operationalization of this national plan.

2.3. SWOC Analysis

The situation analysis describes the existing strengths, weaknesses, opportunities, and challenges for implementation of Zanzibar multi-sectoral drowning prevention action plan. Zanzibar drowning prevention SWOC analysis describes the strength stakeholders possess to achieve the objectives of this strategic plan. It includes the description of availability of resources, plans, initiatives, and prioritization in all perspectives of management, Financing, and legal framework. Moreover, it provides the existing weakness that needs to be addressed. Additionally, it provides opportunities for stakeholders to achieve the implementation of this strategic plan.

PERSPECTIVES	STRENGTH	WEAKNESSES	OPPORTUNITIES	Challenges
Enabling Environment	(i). Zanzibar as part of Tanzania is United nation member state adopt drowning resolution. (ii). Well established DMC under second vice presidents' office. (iii). Presence of key stakeholders for drowning prevention and response (KMKM, ZMA, KZU, NGOs e.t.c) (iv). Clear lines of management and responsibility for DMC (v). Availability of key instruments such as Policy, Plans, and regulation. (vi). Stakeholders' willingness to support intervention of drowning prevention.	(i). Limited mainstreaming of drowning and marine safety in some sectorial plans example MoBEF lack plans for drowning prevention in its key sectors of fisheries and aquaculture. (ii). Limited law enforcement (iii). Absence of clear organogram of drowning (iv). Limited stakeholders' collaboration (v). Absence of some regulations and SOPs such as Swimming pool operation, inland stagnant water area management. (vi). Absence of small boats passenger regulation	(i). Capacity building willingness for the partners (ii). Readiness of Development Partners (iii). Community willingness (iv). Integration of swimming and water safety skills in lower primary curriculum.	(i). Limited resources to support drowning prevention. (ii). Poor mainstreaming of drowning prevention in sectorial planning (iii).

PERSPECTIVES	STRENGTH	WEAKNESSES	OPPORTUNITIES	Challenges
Prevention	(i). Slight Awareness and behavior changes of community (ii). Presence of safety and swimming training skills in lower primary. (iii). Presence waring system (iv). Ongoing trainings of water safety such as swimming Provided by PANJE PROJECT.	(i). Low awareness and behavior changes of the community (ii). Limited implementation of training and education swimming and safety skills in lower primary skills (iii). Limited of integrated communication system (iv). Poor surveillance and monitoring of drowning prevention (v). Limited law enforcement specially in small boats, and sea excursion (vi). Absence of barrier and safety instruction in drowning risk areas.	(i). Presence of NGOs like PANJE PROJECT which training swimming skills to the vulnerable group. (ii). The existence of sectors engaging of marine related activities management (iii). Existence regulations, guideline, and rules for management of marine disasters (iv). Government willingness to support disaster prevention.	(i). Limited budget to support preventions interventions and strategies
Response	(i). Presence of agencies to provide search and rescue examples KMKM and KZU	(i). Low ability to conduct rescue in critical drowning areas such as caves and deep-sea area. (ii). Delay of communication to the rescue agencies	(i). Government support on disaster response (ii). Presence of NGOs such as PANJE Project which build	(i) Limited fund distributed for supporting.

PERSPECTIVES	STRENGTH	WEAKNESSES	OPPORTUNITIES	Challenges
	(ii).Presence of search and rescue guideline for marine related disaster (iii). Presence two designed search and rescue center i.e. one Pemba and one Unguja (iv). The presence of two equipped boats that can provide effective rescue services. The boat has life raft that can accommodate 250 people.	(iii). Delay of agencies to reach scene area. (iv). Shortage of search and rescue skills to the community (v). Limited search and rescue facilities. (vi). Absence of search and rescue plan to the inland drowning (vii).Limited monitoring and surveillance system to monitor response of drowning. (viii). Limited of recording and reporting system (ix). Rescue facilities are not available in other side of the islets. (x). Response capability should strengthen to enhance effective response during drowning incidents.	community capacity on drowning response such as rescue and safety. (iii). Donors interest to support disaster risk reduction in Zanzibar	

SECTION THREE

INTERNAL PROCESS

3.1. Funding of Zanzibar Multi-Sectoral Drowning Prevention Action Plan

The funding to operate the implementation of this national drowning prevention action plan will be based on governmental budget and contribution from local and international stakeholders. The operation of strategic pillars enabling environment, prevention, and response are mostly dependent on governmental budget and stakeholders' contribution. The DMC and The President's office Finance and Planning will be responsible for all resources mobilization for operationalization of this National drowning action plan.

3.2. Communication mechanisms of Zanzibar Multi-Sectoral Drowning Prevention Action Plan

The national drowning prevention action plan will be guided by Zanzibar Disaster Communication strategy and Zanzibar disaster management act of 2015. The DMC will be responsible for coordinating the implementation of this action plan, the national Disaster Management Plan. Communication network systems will be followed as presented in ZDCS to maintain interoperability between all levels of government (national, district, and Shehia), partners, private sectors, united nation agencies and Non-State Actors (NSAs).

SECTION FOUR

4.1. Methodology of Development Zanzibar Multi-Sectoral Drowning Prevention Action Plan 2024-2028

Zanzibar Multi-Sectoral Drowning Prevention Action Plan 2024-2028 is developed through stakeholders' engagement, review of national data, acts, policy, regulation, standards operation procedure and review of research documents. Additionally, the plan is developed by reviewing the WHO adoption of drowning prevention, global drowning prevention resolution adopted by the General Assembly on 28 April 2021, and WHO prevention drowning implementation guide.

4.2. Objective and Targets for drowning Prevention.

The overall goal of the Zanzibar Multi-Sectoral Drowning Prevention Action Plan 2024-2028 (DPNAP) is to prevent drowning incidents both ocean and inland within five years 2024-2028. This will be achieved through three pillars: i) create an *enabling environment* that promotes the elimination of drowning through policy, legislation, regulation, SOPs, guidelines, and multi-sectoral coordination; ii) enhance the scope and effectiveness of *preventative measures*/services, and iii) improve Zanzibar's capacity to *respond* with drowning events. To ensure that these objectives are met, a set of targets have been outlined to help monitor progress over the course of this seven-year period.

Objectives:

Enabling Environment

1. **Multi-Sectoral Direction and Coordination of drowning in Zanzibar:** To ensure effective multi-sectoral coordination in eliminating drowning in Zanzibar.
2. **Regulations:** To ensure the existence of and adherence regulations to reduce the risk of drowning and marine related disaster.
3. **Surveillance and monitoring system:** To strengthen surveillance for monitoring drowning incidents.
4. **Communication:** To strengthening early warning systems to support early detection and timely response to drowning
5. **Monitoring, Evaluation and Assessment:** To ensure that Monitoring and Evaluation system is in place to track drowning prevention and elimination progress and to ensure that the plan is regularly updated incorporating changes of risk factors.
6. **Resource mobilization:** To ensure at least 90% of the required resources (local and international) are mobilized to implement the comprehensive drowning prevention plan.

Prevention

1. **Awareness and Social Behavior:** To enhance community awareness to support social behavior changes for prevention of drowning.
2. **Training and education:** To ensure drowning prevention and response skills are integrated.
3. **Communication and waring system:** To strengthen communication and early warning system.
4. **Intervention:** To promote and maintain drowning prevention environment

Response

1. **Management of Drowning Cases:** To strengthen early access to effective treatment to prevent morbidity and mortality at the community.
2. **Search and Rescue:** To ensure search and rescue capabilities for enhancement of effective and timely response.
3. **Monitoring, communication, and surveillance:** To improve case finding, documentation, response, and reporting of drowning response activities at all levels.
4. **Resources capabilities:** To ensure adequate resources to support effective response activities at all levels.

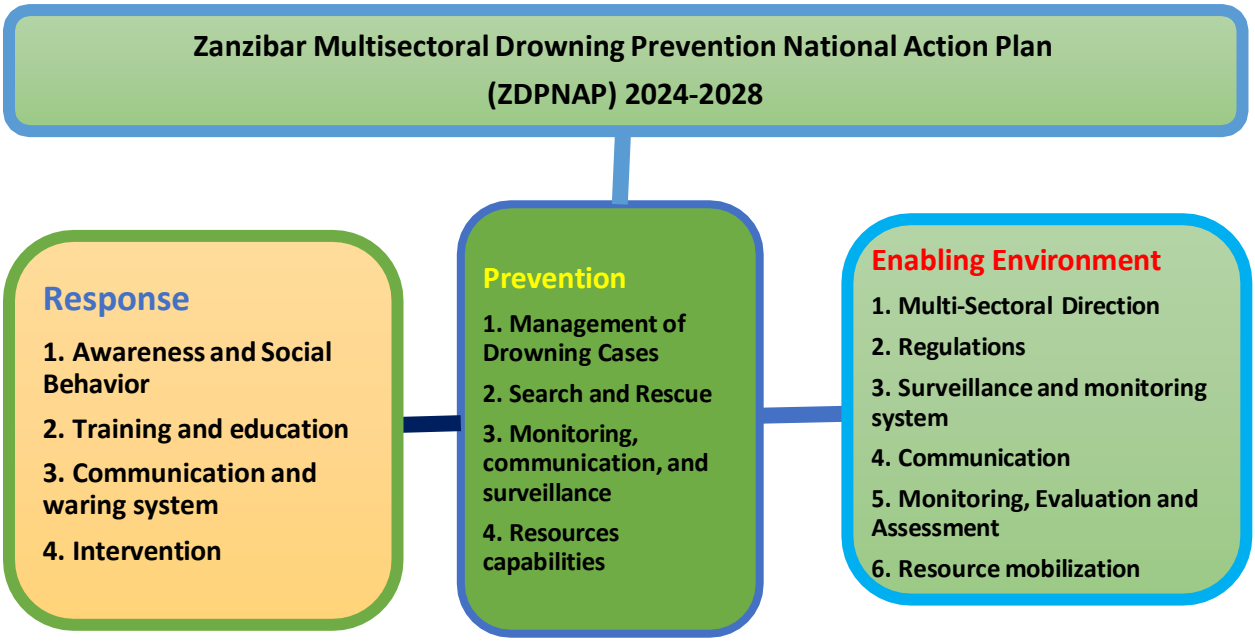


Figure 2: The three pillars of the Zanzibar Multi-Sectoral Drowning Prevention Action Plan 2024-2028 and key interventions

4.3. Strategic Areas of Intervention

The Zanzibar Multi-Sectoral Drowning Prevention Action Plan 2024-2028 set up along the strategic operation areas, which are describe the lead agencies and supporting agencies during NDPAP plan operationalization. The strategic operationalization area is described in the following table.

Table 1: The table show the strategic area of the Zanzibar Multi-Sectoral Drowning Prevention Action Plan 2024-2028

PILLARS	AREAS OF INTERVENTION	LEAD AGENCY	SUPPORTING AGENCIES
Enabling Environment	Multi-Sectoral Direction and Coordination	Second Vice President's and DMC	MoH and Partners
	Legislation, Plans, Policy, and Regulation	All Ministries	NGOs, Private Sectors and United Nation Agencies
	Surveillance and Monitoring	DMC, ZMA, MoBEF, MoH and Special Departments	NGOs, Tanzania Redcross Society, (Panje, Milele Foundation, United nation agencies, Zanzibar National Council for people with disabilities.
	Communication	DMC, MoH, ZMA. MoBEF and TMA	NGOs, Tanzania Redcross Society, Private Sectors and United Nation Agencies, Zanzibar National Council for people with disabilities
	Monitoring, Assessment and Evaluation	DMC, MoH, MoBEF and MoT, ZMA and Special Departments	NGOs, Tanzania Redcross Society, Private Sectors and United Nation Agencies, Zanzibar National Council for people with disabilities
	Resources Mobilization	Ministry of Finance, MoBEF, MoT and DMC	NGOs, Private Sectors and United Nation Agencies,
Prevention	Awareness and Social Behavior	DMC, MoH, MoT, MoBEF ZMA, TMA, Tanzania Redcross Society, and NGOs	Private Sectors and United Nation Agencies and Zanzibar National Council for people with disabilities
	Training and Education	MoVET, DMC, MoBEF, Special Department, Tanzania Redcross Society, and NGOs	Private Sectors and United Nation Agencies and Zanzibar National Council for people with disabilities
	Communication and warning System	DMC, MoBEF, MoH, MoT, Tanzania Redcross Society, ZMA, TPDF, TMA and NGOs	United Nation Agencies and Zanzibar National Council for people with disabilities
	Intervention	Ministry of Finance and DMC	ZMA, United Nation Agencies, Private Sectors and NGOs

Response	Management of Drowning Case	DMC, MoH, MoT, MoBEF, ZMA, and NGOs, TPDF and Special department.	United Nation Agencies and Zanzibar National Council for people with disabilities
	Search and Rescue	DMC, MoT, MoBEF, Special Department, Tanzania Redcross Society, and NGOs, and TPDF	United Nation Agencies and Zanzibar National Council for people with disabilities
	Monitoring, Surveillance and Communication	DMC, MoBEF, MoT, Special Department, Tanzania Redcross Society, and NGOs, and TPDF	United Nation Agencies and Zanzibar National Council for people with disabilities
	Resources Mobilization	Ministry of Finance, MoBEF, MoT and DMC	United Nation Agencies, Private Sectors and NGOs

Enabling Environment:

i. **Multi-Sectoral Direction and Coordination of drowning in Zanzibar.** To ensure effective multi-sectoral coordination in eliminating drowning in Zanzibar.

The coordination and direction of all emergency response activities, including making sure that the prevention, preparedness, and response is governed by the applicable legal framework of the Disaster Risk Reduction and Management Act, No. 1, 2015. The act provides powers to DMC to coordinate, direct and control all activities on management of minor and major disasters.

The commission is under the Second Vice President Office (SVPO) and its composition and functions are detailed in the Act. The commission is the principal actor and the overseer of disaster management and risk reduction processes in Zanzibar. Also, the Act establish the Secretariat of Commission which is headed by the Executive Director and structurally allows for the Secretariat to be divided into divisions. On the other hand, the Act establishes vertical and horizontal integrated framework of Committees. The vertical integrated structure for the committees is such that, at the country level is Technical Committee, at the district level are the District Disaster Management Committee and District Disaster Management Technical Committee, and at Shehia level is the Shehia Disaster Management Committee. On the other hand, the horizontal structure of the committees reflects their composition (members of committees). The committees draw their members from government ministries and departments, but also from non-governmental organization such as civil societies, security, NGOs, and CBOs. The detailed composition and functions of the committees are stipulated in the Act No 1 of 2015[14].

Activities:

- To appoint drowning for focal Person from national and district level.
- To map all stakeholders for drowning.
- To appoint drowning steering committee.
- To develop roles and responsibilities of all stakeholders form national to district level.
- To advocacy resources allocation for multi-sectoral coordination.
- To advocacy communication strategy of drowning to all stakeholders
- To mainstream drowning in sectors planning operation.

Targets:

All key stakeholders participate in a coordinated manner at the implementation of the plan to achieve the agreed targets.

1. **Regulations:** To ensure the existence of and adherence regulations to reduce the risk of drowning and marine related disaster.
   The disaster manage is governed by Disaster management Act 1 of 2015. The drowning and marine disaster is regulated by various sectorial Acts and Regulations. The Zanzibar Maritime Act of 2009 and Marine Transport

[14] Zanzibar Disaster Management Act 1 of 2015

Act of 2006 leading the legal framework for management of marine related accidents such as drowning. The Marine Transport Act have several regulations used to regulate marine safety.

Activities:

- To conduct assessment sectorial acts and regulations in line with drowning prevention to the relevant sectors
- To develop regulation for swimming pool management
- To develop fisheries and aquaculture safety standards operating procedures
- To develop Standards operation procedure for sea excursion
- To develop regulation for management of local passenger boat.
- To develop guideline for enforcement of law and regulation practices across all sectors

Targets:

By 2025, 100% of regulation, Standards operation procedure and guideline are developed and used across all sectors.

2. **Surveillance and monitoring system:** To strengthen surveillance for monitoring drowning incidents.

Presence of well functional monitoring and surveillance system is necessary to ensures prevention, timely detection, reporting, and response to all drowning events. This will focus on capacity building of all focal person at all levels to be aware of monitoring and tracing all incidents to improve the detection and follow-up of drowning cases. Additionally, the community surveillance and response system are very necessary to support effective surveillance and monitoring.

Activities:

- To develop drowning data management systems for recording and reporting of drowning incidents.
- To train district and sectorial focal person on surveillance and monitoring
- To develop surveillance and monitoring guidelines.
- To develop community-based surveillance system.
- To orient community drowning structures (Shehia disaster technical committee) on community-based surveillance guidelines.

Targets:

By the end of 2026 drowning cases are timely detected and reported under surveillance strengthened and properly functioning.

3. **Communication:** To strengthening early warning systems to support early detection and timely response to drowning.

Presence of effective communication system will help to reduce drowning and other marine related disasters. The Tanzania Meteorological Agencies is the responsible agency for disseminating early warning to the community. The agencies are supported by other actors such as DMC, Local government, NGOs, and other sectors to ensure early warning reach the targeted population at time.

Activities.

- To develop and print IE/BCC material on Drowning and its effects and display to the community level.
- To conduct the community engagement awareness meeting
- To develop community drowning committee
- To train community members on early warning information
- To provide early warning instructions to the risk area.

Targets:

By the end of 2025 all local community of Zanzibar are well strengthened to understand drowning risk and prevention measures

4. **Monitoring, Evaluation and Assessment:** To ensure that Monitoring and Evaluation system is in place to track drowning prevention and elimination progress and to ensure that the plan is regularly updated incorporating changes of risk factors.
    - To train district and sectors drowning focal person on Monitoring and evaluation.
    - To develop yearly Monitoring and evaluation framework to track the implementation of Drowning Prevention Plan.
    - To conduct supervision visits at all levels
5. **Resource mobilization:** To ensure at least 90% of the required resources (local and international) are mobilized to implement the comprehensive drowning prevention plan.

Resources for drowning need to localize to the community level to enhance effective prevention and response of drowning incidents.

Activities.

- To appoint resources mobilization technical working group.
- To develop resource mobilization strategies.

Targets:

By the second quarter of 2027 of Implementation of National Drowning Prevention Strategies at least 90% of planned resources and budget are available to distributed to the needed areas.

ii. Prevention

1. **Awareness and Social Behavior:** To enhance community awareness to support social behavior changes for prevention of drowning.

Activities.

- To conduct assessment to identify risk groups with a view to reducing the number of drowning fatalities.
- To conduct an awareness program through TV, Radio, Mobile vans, and social media
- To develop guidelines to assist media depict positive images and behavior and to help them to avoid showing water safety behavior in advertising and media.
- To promote awareness of Water Safety amongst those traveling overseas
- To provide awareness programs to seaweed farmers and local fishermen
- To provide awareness programs specifically to school aged children

Targets:

By end of 2025 all schools and communities of Zanzibar are reached by any form of awareness programs or platforms.

2. **Training and education:** To ensure drowning prevention and response skills are integrated.

Activities:

- To conduct swimming training of school children
- To sensitize school to implement swimming training.
- To conduct swimming training to seaweed farmers on
- To conduct basic water safety skills in both primary and secondary schools

- To sensitize development of school, college, and university swimming clubs
- To start community swimming clubs to various communities' group
- To conduct safety training to the boatman that transport passenger to the small islands and tourist

Targets:

To ensure swimming skills are integrated at all vulnerable and targeted group by end of 2026.

3. **Communication and waring system:** To strengthen communication and early warning system.

   Activities:

   - To provide early warning to the community such as flooding early warning
   - To conduct sensitization programs to the community
   - To develop drowning information to the schools and community
   - To provide daily warning information of risk area during rainy season
   - To provide warning information when there is stagnant or flooding in the road or residential area.
   - To conduct community supervision to assess implementation of prevention activities.

4. **Intervention:** To promote and maintain drowning prevention environment
   Activities:

   - To map all inland stagnant water area that may cause drowning.
   - To install barriers to all inland drowning area
   - To install warning and instructions to all ocean and inland drowning area
   - To build fence of swimming particularly visited frequently by Public.
   - To conduct supervision to most drowning risk area particularly during rainy season.
   - To distribute drowning prevention equipment to the community.

Target:

By year 2025, all risk area is installed by barrier and provided warning instructions.

iii. Response

1. **Management of Drowning Cases: To strengthen** early access to effective treatment to prevent morbidity and mortality at the community.
   Activities:
   - To conduct training of search and rescue to search and rescue team.
   - To conduct training of resuscitation to search and rescue team.
   - To conduct training of resuscitation to the community and students.
   - To conduct training of search and rescue to the community and students.
2. **Search and Rescue:** To ensure search and rescue capabilities for enhancement of effective and timely response.
   Activities.
   - To establish search and rescue team at community level
   - To provide training search and rescue training to the community

- To conduct supervision of recreational swimming area
- To develop swimming time guideline for recreational swimming area.

Target:

By the end of 2025 all reported cases are timely managed through guidelines.

3. **Monitoring, communication, and surveillance:** To improve case finding, documentation, response, and reporting of drowning response activities at all levels.
   Activities:
   - To review Surveillance, communication and monitoring guidelines and related data tools including community case registration forms.
   - To conduct training to surveillance team on surveillance tools and guideline
   - To conduct inspection to identifying drowning risk area
   - To conduct supervision to monitor drowning cases during high-risk time.
   - To conduct active case surveillance (ACS) at community level when incidents cases reported for response.
   - To review drowning data base for recording and reporting drowning cases

   Target:

All cases of drowning are detected and reported.

4. **Resources capabilities:** To ensure adequate resources to support effective response activities at all levels.
   Activities.
   - To mobilize resources from partners
   - To review resources mobilization strategies

   Target:

   By the end 2026 new rescue facilities established and equipped with water rescue toolkit.

SECTION FIVE

5. Funds Needed for Thematic Area for Zanzibar Multi-Sectoral Action Plan of Drowning Prevention 2024-2028

Table 2: The table shows budget needed to operate ***Zanzibar Multi-Sectoral Action Plan of Drowning Prevention 2024-2028***

Pillars	AREA OF INTERVENTION	Responsible	Total Needs in USD	Available Fund	Gaps
Enabling Environment	Mult-Sectoral Direction and Coordination	SVPO	255,000	0	255,000
	Legislation, Plans, Policy, and Regulation	Government Sectors	25,000	0	25,000
	Surveillance and Monitoring	DMC, ZMA, MoH and Special Departments	250,000	0	250,000
	Communication	DMC, TMA, ZMA, MoH and Special Departments	200,000	0	200,000
	Monitoring, Assessment and Evaluation	DMC, MoH and MoT, ZMA and Special Departments	200,000	0	200,000
	Resources Mobilization	Ministry of Finance and DMC	25,000	0	25,000
Total of Enabling Environment			***955,000***		***955,000***
Prevention	Awareness and Social Behavior	DMC, MoH, MoT, ZMA, TMA, Tanzania Redcross Society, and NGOs	500,000	0	500,000
	Training and Education	MoVET, DMC, Special Department, Tanzania Redcross Society, and NGOs	2,500,000	0	2,500,000
	Communication and warning System	DMC, TMA, ZMA, MoH and Special Departments	250,000	0	250,000
	Intervention	DMC, MoH and MoT, ZMA and Special Departments	1200,000	0	1200,000
Total of Prevention			***4,450,000***		***4,450,000***
Response	Management of Drowning Case	DMC, MoH, MoT, ZMA, and NGOs, TPDF and Special department.	2,500,000	0	2,500,000
	Search and Rescue	DMC, MoH and MoT, ZMA and Special Departments	500,000	0	500,000

	Monitoring, Surveillance and Communication	DMC, MoH and MoT, ZMA and Special Departments	200,000	0	200,000
	Resources Mobilization	Ministry of Finance and DMC	12,000	0	12,000
Total of Response			***3,212,000***	***0***	***3,212,000***
Total Budget for the Drowning Prevention National Action Plan 2024-2028				***USD 8,617,000.00***	

SECTION SIX

6. Monitoring, Budget of Activities and Expected Result

Budget Framework for **Zanzibar Multi-Sectoral Action Plan of Drowning Prevention** Activities Implementation from 2024-2028. The strategic plan budget provide description on activities, planned time of implementation, total estimated cost of activities, cost of activities per year and sources of funds to support the implementation of planned activities.

Pillar I: Enabling Environment									
	Key Activity	**Expected Results**	**Performance Indicators**	**2024/2025**	**2025/2026**	**2026/2027**	***2027/2028***	***Responsible Sector***	***Budget***
Strategic area 1: Multi-Sectoral Direction and Coordination of drowning in Zanzibar.									
Strategic Objective 1: To ensure effective multi-sectoral coordination in eliminating drowning in Zanzibar									
Outcome: Zanzibar national action plan for drowning prevention is well coordinated and operated at local and national level									
1.1.1.1	To appoint drowning for focal Person at district level.	Effective implementation and coordination	Qualified focal Person in place	X	X	X	X	SVPO	15000
1.1.1.2	To map all stakeholders for drowning.	All stakeholders for drowning prevention are identified	Number of stakeholders identified (local and International	X			X	SVPO	38,000
1.1.1.3	To appoint drowning steering committee.	Effective Drowning steering committee in place	Number of working meetings conducted by steering committee	X				SVPO	55,000

1.1.1.4	To develop roles and responsibilities of all stakeholders form national to district level.	Stakeholders implement their roles	ToR describe roles of all stakeholders in place	X				SVPO	**25000**

1.1.1.5	To advocate resources allocation for multi-sectoral coordination.	Resources are allocated to support coordination	Amount of fund allocated	X	X	X	X	SVPO/DMC/ MoFP	**60000**
1.1.1.6	To advocate communication strategy of drowning to all stakeholders	Enhanced coordination	Operated Communication strategy	X			X	SVPO/DMC	**35000**
1.1.1.7	To mainstream drowning in sectors planning operation	Drowning integrated Sectors planning	Number sector plans that integrate drown	X	X	X	X	SVPO/DMC	**27000**
Multi-Sectoral Direction and Coordination of drowning in Zanzibar.									***255,000***
Strategic area 2: Regulation									
Strategic objective 2: To ensure the existence of and adherence regulations to reduce the risk of drowning and marine related disaster.									
Outcome 2. Zanzibar with effective enforcement of act and regulations in all sectors for drowning prevention									
1.2.1.1	To conduct assessment sectorial acts and regulations in line with drowning prevention to the relevant sectors	Identify legislation and regulatory gaps	Assessment report	X					**5,000**
1.2.1.2	To develop regulation for swimming pool management	Regulation for managing swimming pools developed and used to	Approved Regulation by authority		X			MoT	**5,000**

		manage swimming pool operation							
1.2.1.3	To develop fisheries and aquaculture safety standards operating procedures	SOPs for safety management of fisheries and aquaculture	Approved SOPs by authority		X			MoBEF	**5,000**
1.2.1.4	To develop regulation for management of local passenger boat.	Regulation that manages local passenger boat	Approved regulation by authority		X			ZMA	**5,000**
1.2.1.5	To develop guideline for enforcement of law and regulation practices across all sectors	Guideline that supports monitor the practices of low	Performance report		X			All ministry	**5,000**
Total budget for regulation									**25,000**
Strategic area 3: Surveillance and monitoring system									
Strategic objective 3: To strengthen surveillance for monitoring drowning incidents.									
Outcome 3: Zanzibar with effective Surveillance system for monitoring drowning incidents									
1.3.1.1	To develop drowning data management systems for recording and reporting of drowning incidents.	Operated surveillance system with proper data management of drowning	Drowning data management in Place		X	X		DMC	**60,000**

1.3.1.2	To train district and sectorial focal person on surveillance and monitoring	Focal person that capable to conduct surveillance and monitoring	Training report	X	X	X	X	DMC and NGOs	**70,000**
1.3.1.3	To develop surveillance and monitoring guidelines	surveillance and monitoring guidelines that can easily facilitate monitoring process	Approved surveillance and monitoring guideline	X					**40,000**
1.3.1.4	To develop community-based surveillance system.	Drowning incidents are well monitored at community level	Community based surveillance system in Place		X	X		DMC and NGOs	**50,000**
1.3.1.5	To orient community drowning structures (Shehia disaster technical committee) on community-based surveillance guidelines.	Community can report drowning effectively to district disaster committee	Training report			X		DMC and NGOS	**30,000**
Total budget for Surveillance and monitoring system									**250,000**
Strategic area 4: Communication									
Strategic Objective 4: To strengthening early warning systems to support early detection and timely response to drowning.									
Outcome: Zanzibar early warning system are very effective to support prevention and time response.									
1.4.1.1	To develop and print IE/BCC material on Drowning and its effects and display to the community level.	Community that aware on drowning incidents	Number of communities receive awareness materials	X	X	X		DMC	**30,000**

1.4.1.2	To conduct the community engagement awareness meeting	Community that aware and engage in drowning management strategies	Number of communities engaged	X	X	X	X	DMC and NGOs	**400,000**
1.4.1.3	To develop community drowning committee	Effective community that capable to engaged in drowning management	Community drowning committee in Place	X	X	X	X	DMC and NGOs	**10,000**
1.4.1.4	To train community members on early warning information	Community that can act when warning disseminated	Number of communities sensitized of early warning	X	X	X	X	DMC/TMA/ MoBEF	**80,000**
1.4.1.5	To provide early warning instructions to the risk area.	All drowning risk area identified, and instruction displayed	Number of drowning risk area with instruction			X		DMC/LGAs	**40,000**
Total budget for Communication									**200,000**
Strategic area 5: Monitoring, Evaluation and Assessment:									
Strategic Objective 5: To ensure that Monitoring and Evaluation system is in place to track drowning prevention and elimination progress and to ensure that the plan is regularly updated incorporating changes of risk factors.									
Outcome 5: Zanzibar with effective monitoring and evaluation system to report									
1.5.1.1	To train district and sectors drowning focal person on Monitoring and evaluation.	Trained focal person that capable to monitoring and evaluation	Number of training programs	X	X	X	X	DMC	**80,000**
1.5.1.2	To develop yearly Monitoring and evaluation framework to track the implementation	Effective monitoring framework to monitor effective implementation	Annual report	X				DMC	**80,000**

	of Drowning Prevention Plan.								
1.5.1.3	To conduct supervision visits at all levels	Effective visit at all levels	Supervision report	X	X	X	X	DMC	**60,000**
Total of **Monitoring, Evaluation and Assessment:**									**200,000**
Strategic area 6: Resource mobilization:									
Strategic objective 6: To ensure at least 90% of the required resources (local and international) are mobilized to implement the comprehensive drowning prevention plan.									
Outcome 6: Adequate resource available to implement planned activities									
1.6.1.1	To appoint resources mobilization technical working group.	Technical working group mobilize resources effective	Technical working group in place	X				DMC and MoFP	**7500**
1.6.1.2	To develop resource mobilization strategies.	Strategies that mobilize resources	Strategy for mobilizing resources in place	X				DMC and MoFP	**17500**
Total budget Resource mobilization:									**25,000**
Pillar II: Prevention									
	Key Activity	**Expected Results**	**Performance Indicators**	**2024/2025**	**2025/2026**	**2026/2027**	***2027/2028***	***Responsible Sector***	***Budget***
Strategic area1: Awareness and Social Behavior:									
Strategic objectives 1: To enhance community awareness to support social behavior changes for prevention of drowning.									
Outcome1: Community changing behavior and aware on drowning incidents									
2.1.1.1	To conduct assessment to identify at-risk groups with a view to reducing the	Risk groups are identified and known their numbers	Report	X	X	X	X	DMC, MoBEF	**70,000**

	number of drowning fatalities.								
2.1.1.2	To conduct an awareness program through TV, Radio, Mobile vans, and social media	Community aware of drowning	Number of awareness program	X	X	X	X	DMC. MoBEF and TMA	**100,000**
2.1.1.3	To develop guidelines to assist media depict positive images and behavior and to help them to avoid showing water safety behavior in advertising and media.	Behavior changes of community	Number of guidelines produced		X	X		DMC	**80,000**
2.1.1.4	To promote awareness of Water Safety amongst those traveling overseas	Travelers that aware safe overseas travelling	Number awareness program	X	X	X	X	DMC, MoH, MoBEF and NGOs	**80,000**
2.1.1.5	To provide awareness programs to seaweed farmers and local fishermen	Seaweed farmers and fishermen that aware of drowning incidents	Number of seaweed farmers and fishermen reached		X	X	X	MoBEF	**70,000**
2.1.1.6	To provide awareness programs specifically to school aged children	School aged children aware on drowning	Number of school aged children reached on drowning awareness program	X	X	X	X	DMC and NGOs	**100,000**
Total budget Awareness and Social Behavior:									**500,000**
Strategic area 2: Training and education									
Strategic objective2: To ensure drowning prevention and response skills are integrated									
Outcome2: Zanzibar people have drowning prevention skills									

2.2.1.1	To conduct swimming training of school children	School children receive swimming training	Number of students receive swimming training	X	X	X	X	DMC and NGOs	**500,000**
2.2.1.2	To sensitize school to implement swimming training	School curriculum mainstream swimming skills	Number of schools start to train students swimming	X	X	X	X	MoVET and DMC, NGOs	**100,000**
2.2.1.3	To conduct swimming training to seaweed farmers on	Seaweed farmers are capable to swim	Number of seaweed farmers receive training		X	X	X	DMC, MoBEF and NGOs	**400,000**
2.2.1.4	To conduct basic water safety skills in both primary and secondary schools	Children they can provide water safety assistant	Number of students receive training	X	X	X	X	DMC, MoVET and NGOs	**300,000**
2.2.1.5	To sensitize development of school, college, and university swimming clubs	Swimming clubs for sensitizing swimming skills and behavior	Number of swimming clubs exist	X	X	X	X	DMC, MoVET and NGOs	**200,000**
2.2.1.6	To create community swimming clubs to various communities' group	Swimming clubs at community level	Number of community swimming clubs	X	X	X	X	DMC and NGOs	**80,000**

2.2.1.7	To conduct safety training to the boatman that transport passenger to the small islands and tourist	Boatman with water safety skills	Number of boatmen trained with water safety skills	X	X	X	X	DMC and NGO	**920,000**
Total budget of Training and education									**2,500,00**
Strategic area 3: Communication and waring system.									
Strategic objective 3: To strengthen communication and early warning system									
Outcome 3: Zanzibar have effective communication and early warning system to prevent drowning									
2.3.1.1	To provide early warning to the community such as flooding early warning	Community is aware when they receive early warning	Number of communities reached	X	X	X	X	DMC, MoBEF, MoT and TMA	**50,000**
2.3.1.2	To conduct sensitization programs to the community	Community that are well sensitized	Number of sensitization program reached the community	X	X	X	X	DMC, MoBEF and TMA	**75,000**
2.3.1.3	To develop drowning information to the schools and community	School aged students and community receive information of drowning	Number of communities reached	X	X	X	X	DMC	**50000**

2.3.1.4	To provide daily warning information of risk area during rainy season	Daily information of warning reaches the community during rain season	Report of daily warning information	X	X	X	X	DMC, LGAs and TMA	**25000**
2.3.1.5	To provide warning information when there is stagnant or flooding in the road or residential area.	Community receive on time warning of flooding or stagnant water	Report of early warning information disseminate	X	X	X	X	DMC, LGAs and TMA	**25000**
2.3.1.6	To conduct community supervision to assess implementation of prevention activities.	Community is supervised for preventing drowning	Supervision report	X	X	X	X	DMC	**25000**
Total budget for Communication									**250,000**
Strategic area 4: Intervention:									
Strategic objective 4: To promote and maintain drowning prevention environment									
Outcome 4: Zanzibar with safe environment prevent drowning									
2.4.1.1	Mapping of all water stagnant area that may cause drowning.	Stagnant are mapped to know inland drowning area	Mapping Report	X					**25000**

2.4.1.2	To install barriers to all inland drowning area	Inland drowning risk area are fenced by barrier	Number inland drowning area fenced by barriers	X	X	X		DMC and LGAs	**600,000**
2.4.1.3	To install warning and instructions to all ocean and inland drowning area	Risk areas are placed with warning instruction	Number of areas placed with warning instruction	X	X	X		DMC and LGAs	**200,000**
2.4.1.4	Fencing of swimming particularly visited frequently buy Public.	Public swimming pool are well fenced	Number public swimming pool fenced	X	X	X		DMC, MoT and LGAs	**200,000**
2.4.1.5	To conduct supervision to most drowning risk area particularly during rainy season.	All drowning risk area are supervised	Supervision report	X	X	X		DMC, MoT and LGAs	**25,000**
2.4.1.6	To identify and distribute drowning prevention equipment to the community.	High risk community have facility to prevent drowning	Number of communities receive facility	X	X	X		DMC	**150,000**
Total budget of Intervention									***1200,000***
Pillar III. Response									
Strategic area 1: Management of Drowning Cases									

Strategic Objective 1: To strengthen early access to effective treatment to prevent morbidity and mortality at the community.									
Outcome: Drowning morbidity and mortality are effective managed in Zanzibar									
3.1.1.1	To conduct training of search and rescue to the search and rescue team. .	Search and Rescue team are capable to respond effective	Number of Search and Rescue training conducted	X	X	X	X	DMC	**500,000**
3.1.1.2	To conduct training search and rescue to the community, and students,	Community can response and conduct search and rescue	Number of Search and Rescue training conducted	X	X	X	X	DMC and NGOs	**500,000**
3.1.1.3	To conduct training of resuscitation to the search and rescue team	Search and Rescue team are capable to perform resuscitation	Number of search and rescue team trained with resuscitation	X	X	X	X	DMC and NGOs	**750,000**
3.1.1.4	To conduct training of resuscitation to the students and community	Community and students are capable to perform resuscitation	Number communities and students trained with resuscitation	X	X	X	X	DMC and NGOs	**750,000**
Total Budget for Case management									**2500,000**
Strategic Area 2: Search and Rescue:									
Strategic Objective 2: To ensure search and rescue capabilities for enhancement of effective and timely response									
Outcome 2: Search and rescue conducted effectively and timely									

3.2.1.1	To establish search and rescue team at community level	Community search and rescue team red for supporting drowning response	Number of community search and rescue team established	X	X	X		DMC, LGAs and NGOs	**25000**
3.2.1.2	To provide training search and rescue training to the community	Community search rescue team capable to conduct response	Number of community search and rescue team trained	X	X	X		DMC, LGAs and NGOs	**400,000**
3.2.1.3	To conduct supervision of recreational swimming area	Recreation areas are supervised by multi-coordination stakeholders' approach	Number of supervision report	X	X	X		DMC, and All Stakeholders	**50000**
3.2.1.4.	Develop swimming time guideline for recreational swimming area.	Guideline support safe pool operation	Approved swimming pool guideline		X			DMC and MoT	**25000**
Total budget of search and rescue									**500,000**
Strategic area 3: Monitoring, communication, and surveillance									
Strategic Objective 3: To improve case finding, documentation, response, and reporting of drowning response activities at all levels.									
Outcome 3: Drowning cases are traced and effectively reported									
3.3.1.1	To review Surveillance, communication and monitoring guidelines and related data tools	Harmonized surveillance and monitoring guideline	Reports submitted		X	X		DMC	**5,000**

	including community case registration forms.								
3.3.1.2	To conduct training to surveillance team on surveillance tools and guideline	Trained personnel that able to conduct surveillance	Number of people trained		X	X		DMC and MoH	**25,000**
3.3.1.3	To conduct inspection to identifying drowning risk area	Risk is inspected every year	Number of inspection report	X	X	X		DMC and MoH	**15,000**
3.3.1.4	To conduct supervision to monitor drowning cases during high-risk time.	High risk time for drowning monitored	Number of supervision report		X	X		DMC and MoH	**50,000**
3.3.1.5	To conduct active case surveillance (ACS) at community level when incidents cases reported for response.	Drowning case reported at time	Report presented to steering time		X	X		DMC and MoH	**25,000**
3.3.1.6	To review drowning data base for recording and reporting drowning cases	Up dated data based of drowning	Report		X	X		DMC	**80,000**
Total budget of monitoring and surveillance									**200,000**

Strategic area 4: Resources capabilities									
Strategic Objective 4: To ensure adequate resources to support effective response activities at all levels.									
Outcome 4: Resources are available to operate Zanzibar Drowning National Action Plan									
3.4.1.1	To mobilize resources partners	Partners are mobilized and contribute effectively	Amount of resource received	X	X	X		DMC	**6,000**
3.4.1.2	To review resources mobilization strategies	Resource mobilization strategic is operated	Review strategies in place			X		DMC	**6,000**
Total budget for resources mobilization									**12,000**
Grand Total of Zanzibar Multi-Sectoral Drowning Prevention Action Plan									***USD 8,617,000***

SECTION SEVEN

7. Strategic Plan Risks and Its Mitigation Plan

Implementation of Zanzibar Multi-Sectoral Action Plan of Drowning Prevention 2024-2028 is expected to face various risks. The risk factors are expected to impact the implementation of action Plan. The Risk factors can be both internal risk and external risk. Therefore, DMC and stakeholders' analysis risk factors that can hinder the implementation of an action plan and provide mitigation measures to reduce the constraint caused by the predicted risk. The process of identifying risk included brainstorming, interview, survey, self-assessment of the institution and focus group discussion with key stakeholders. The identified risk is analyzed to determine the likelihood, consequences, impacts and exposure of the risk for planned activities and targeted to be reached during action plan implementation. Then, the predicted risk is provided with mitigation measures for risk management to reduce the impacts of caused by risk.

Strategic Plan Risks, Level, and Mitigation Measures

Risk	Description	Risk Type	Likelihood of Risk	Impacts	itigation Measures
Delay of implementation of planned activities	The approval activities may delay its implementation to its planned time.	Managerial risk	Medium	Failure to reach the planned targets	Monitoring and engaging of all stakeholders
Budget allocation	The implementation planned activities depend on stakeholders' contribution and donor funded.	Financial	High	Failure to implement activities	Development of large number of financial supports, investment, commitment of donors and government
Low number of Staff capacity to support training on swimming and water safety	The plan target to improve water safety and swimming skills to community and students particularly lower primary	Human Resources	Very High	Failure to train large number of people	Establish swimming clubs to schools, university, and community.
Low community awareness	This plans set targets to train community on marine safety and community that aware and follow all safety regulations and SOPs	Managerial	Very High	Limited community participation	Community awareness and engagement
Delaying of development of Regulations, SOPs, and Plans at sectorial levels.	The regulations, SOPs and Plan need approval before used for implementation	Financial	Medium	Delay to reach planned targets of drowning prevention	Sectors engagement, follow up and lobbing

SECTION EIGHT

8. Implementation of Zanzibar Multi-Sectoral Drowning Prevention Strategy 2024-2028

Pillar I: Enabling Environment																	
	Key Activity	**2024/2025**				**2025/2026**				**2026/2027**				**2027/2028**			
		Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Strategic area 1: Multi-Sectoral Direction and Coordination of drowning in Zanzibar.																	
Strategic Objective 1: To ensure effective multi-sectoral coordination in eliminating drowning in Zanzibar																	
1.1.1.1	To appoint drowning for focal Person from national and district level.																
1.1.1.2	To map all stakeholders for drowning.																
1.1.1.3	To appoint drowning steering committee.																
1.1.1.4	To Develop roles and responsibilities of all stakeholders form national to district level.																
1.1.1.5	To advocate resources allocation for multi-sectoral coordination.																
1.1.1.6	To advocate communication strategy of drowning to all stakeholders																
1.1.1.7	To mainstream drowning in sectors planning operation																
Strategic area 2: Regulation																	

Strategic objective 2: To ensure the existence of and adherence regulations to reduce the risk of drowning and marine related disaster.																		
1.2.1.1	To assess existing sectorial acts and regulations in line with drowning prevention to the relevant sectors																	
1.2.1.2	To develop regulation for swimming pool management																	
1.2.1.3	To develop fisheries and aquaculture safety standards operating procedures																	
1.2.1.4	To develop regulations for management of local passenger boat.																	
1.2.1.5	To develop guideline for enforcement of law and regulation practices across all sectors																	
Strategic area 3: Surveillance and monitoring system																		
Strategic objective 3: To strengthen surveillance for monitoring drowning incidents.																		
1.3.1.1	To develop drowning data management systems for recording and reporting of drowning incidents.																	
1.3.1.2	To train district and sectorial focal person on surveillance and monitoring																	
1.3.1.3	To develop surveillance and monitoring guidelines																	
1.3.1.4	To develop community-based surveillance system.																	
1.3.1.5	To orient community drowning structures (Shehia disaster technical committee) on community-based surveillance guidelines.																	
Strategic area 4: Communication																		
Strategic Objective 4: To strengthen early warning systems to support early detection and timely response to drowning.																		

1.4.1.1	To develop and print IE/BCC material on Drowning and its effects and display to the community level.																	
1.4.1.2	To conduct the community engagement awareness meeting																	
1.4.1.3	To develop community drowning committee																	
1.4.1.4	To train community members on early warning information																	
1.4.1.5	To provide early warning instructions to the risk area.																	
Strategic area 5: Monitoring, Evaluation and Assessment:																		
Strategic Objective 5: To ensure that Monitoring and Evaluation system is in place to track drowning prevention and elimination progress and to ensure that the plan is regularly updated incorporating changes of risk factors.																		
1.5.1.1	To train district and sectors drowning focal person on Monitoring and evaluation.																	
1.5.1.2	To develop yearly Monitoring and evaluation framework to track the implementation of Drowning Prevention Plan.																	
1.5.1.3	To conduct supervision visits at all levels																	
Strategic area 6: Resource mobilization:																		
Strategic objective 6: To ensure at least 90% of the required resources (local and international) are mobilized to implement the comprehensive drowning prevention plan.																		
1.6.1.1	To appoint resources mobilization technical working group.																	
1.6.1.2	To develop resource mobilization strategies.																	

Pillar II: Prevention		
Strategic area1: Awareness and Social Behavior:		
Strategic objectives 1: To enhance community awareness to support social behavior changes for prevention of drowning.		
2.1.1.1	To analyze drowning statistics to identify at-risk groups with a view to reducing the number of drowning fatalities.	
2.1.1.2	To conduct an awareness program through TV, Radio, Mobile vans, and social media	
2.1.1.3	Produce guidelines to assist media depict positive images and behavior and to help them to avoid showing water safety behavior in advertising and media.	
2.1.1.4	To promote awareness of Water Safety amongst those traveling overseas	
2.1.1.5	To provide awareness programs to seaweed farmers and local fishermen	
2.1.1.6	To provide awareness programs specifically to school aged children	
Strategic area 2: Training and education		
Strategic objective2: To ensure drowning prevention and response skills are integrated		
2.2.1.1	To provide swimming training of school children	
2.2.1.2	To mainstream swimming skills in school curriculum	
2.2.1.3	To provide swimming training to seaweed farmers on	

2.2.1.4	To provide basic water safety skills in both primary and secondary schools																	
2.2.1.5	To sensitize development of school, college, and university swimming clubs																	
2.2.1.6	To establish community swimming clubs to various communities' group																	
2.2.1.7	To conduct safety training to the boatman that transport passenger to the small islands and tourist																	
Strategic area 3: Communication and waring system.																		
Strategic objective 3: To strengthen communication and early warning system																		
2.3.1.1	To provide early warning to the community such as flooding early warning																	
2.3.1.2	To conduct sensitization programs to the community																	
2.3.1.3	To develop drowning information to the schools and community																	
2.3.1.4	To provide daily warning information of risk area during rainy season																	
2.3.1.5	To provide warning information when there is stagnant or flooding in the road or residential area.																	

2.3.1.6	To conduct community supervision to assess implementation of prevention activities.																	
Strategic area 4: Intervention:																		
Strategic objective 4: To promote and maintain drowning prevention environment																		
2.4.1.1	Mapping of all water stagnant area that may cause drowning.																	
2.4.1.2	To install barriers to all inland drowning area																	
2.4.1.3	To install warning and instructions to all ocean and inland drowning area																	
2.4.1.4	Fencing of swimming particularly visited frequently buy Public.																	
2.4.1.5	To conduct supervision to most drowning risk area particularly during rainy season.																	
2.4.1.6	To identify and distribute drowning prevention equipment to the community.																	
Pillar III: Response																		
Strategic area 1: Management of Drowning Cases																		
Strategic Objective 1: To strengthen early access to effective treatment to prevent morbidity and mortality at the community.																		

3.1.1.1	To conduct training of search and rescue to the search and rescue team.	
3.1.1.2	To conduct training search and rescue to the community, and students	
3.1.1.3	To conduct training of resuscitation to the search and rescue team	
3.1.1.4	To conduct training of resuscitation to the students and community	
Strategic Area 2: Search and Rescue:		
Strategic Objective 2: To ensure search and rescue capabilities for enhancement of effective and timely response		
3.2.1.1	To establish search and rescue team at community level	
3.2.1.2	To provide training search and rescue training to the community	
3.2.1.3	To conduct supervision of recreational swimming area	
3.2.1.4.	To develop swimming time guideline for recreational swimming area.	
Strategic area 3: Monitoring, communication, and surveillance		
Strategic Objective 3: To improve case finding, documentation, response, and reporting of drowning response activities at all levels.		

3.3.1.1	To review Surveillance, communication and monitoring guidelines and related data tools including community case registration forms.																	
3.3.1.2	To conduct training to surveillance team on surveillance tools and guideline																	
3.3.1.3	To conduct inspection to identifying drowning risk area																	
3.3.1.4	To conduct supervision to monitor drowning cases during high-risk time.																	
3.3.1.5	To conduct active case surveillance (ACS) at community level when incidents cases reported for response.																	
3.3.1.6	To review drowning data base for recording and reporting drowning cases																	
Strategic area 4: Resources capabilities																		
Strategic Objective 4: To ensure adequate resources to support effective response activities at all levels.																		
3.4.1.1	To mobilize resources																	
3.4.1.2	To review resources mobilization strategies																	

ANNEX 1.

SITUATION ANALYSIS OF DROWNING IN ZANZIBAR.

About this situation Analysis

This situation analysis was conducted to provide evidence of drowning in Zanzibar. It provides depth analysis on enabling environment, prevention, and response capabilities on drowning in Zanzibar. The analysis provides depth information and data of incidents occurrence, risk population, management framework and capability to manage drowning problems.

Why this Report?

The Zanzibar risk profile and mapping of 2018, 2021 and 2023 revealed that the islets have higher risk likelihood and experiences several hazards which causes losses, death, and destruction. The profiles report marine related disasters as among highly risk hazards with significant likelihood of occurrence. The drowning in Zanzibar is among the neglected public health challenges, despite causing many deaths. Specifically, mainstreaming of drowning action Plan in implementation any sectoral plan such Blue Economy implementation, tourism can help in the following ways:

- Drowning prevention national plan will help to reduce mortality of vulnerable groups such as children, seaweed farmers, tourists, and fishermen.
- The plan will help to address the root causes of marine related disasters in Zanzibar**.**
- The plan will address the cultural constraint of limited prioritization of swimming skills to the Zanzibar community.
- This plan will help to support mainstreaming of drowning prevention and response intervention into sectoral planning.
- The plan will support effective coordination on marine related disasters and make the Zanzibar community safe.
- Promote accountability of sectors for drowning prevention and response.

About this Report

This report has been developed based on wide-ranging consultations among stakeholders in disaster management. It includes a wide range of analysis of marine related disasters, inland risk, legal review and supported by extensive desk research. The stakeholders were identified through a carefully planned and well-researched process of Stakeholder Analysis. The consultations were held over the period from 9th of October 2023 to 25th of October 2023, with representatives from fisheries committee, community organizations, NGOs/CSOs, the private sector, and research organizations. The consultant also met stakeholders through site visits and key informant's interviews.

This report has the following structure two Parts:

- Part one: Situation analysis of drowning in Zanzibar. The parts describe the data, causes, and risks of populations. Additionally, it analyzes the enabling environment, prevention, and response capabilities on drowning in Zanzibar.

- Part two is the description of the national action Plan of drowning in Zanzibar. The plan is developed through planning specific objectives, three pillars of intervention i.e enabling environment, prevention, and response capabilities on drowning in Zanzibar. Moreover, the parts provide the description of the strategic area of intervention, strategic objectives, outcome, responsible agencies, specific agencies, time of implementation and budget allocation.

The situation analysis and National action plan supported by scientific references from the global drowning guidelines, national acts, policy, plans and regulations.

Definitions, Key Terms and Concepts

Terms	Definitions
Blue economy	Is the sustainable use of resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health
Blue Economy Sectors Priorities	The blue economy sectors are Zanzibar include Fisheries and Aquaculture, Maritime and Infrastructure, Tourism, Oil and Gas, energy sector.
Likelihood	Risk Likelihood means the possibility of a potential risk occurring, interpreted using qualitative values such as low, medium, or high. This is in comparison with quantitative assessments, which use data and numbers. When using a quantitative assessment, you typically speak about Risk Probability and percentage
Coordination, Direction and Control	Means a top-down emergency response structure that specifies who is in charge and who reports to whom. Establishing this structure beforehand ensures all concerned agencies understand their responsibilities and are ready to respond in a coordinated manner when a disaster occurs.
Disaster	Means a serious disruption of the functioning of a community or society causing widespread human, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources.
Disaster Preparedness	Refers to activities that are undertaken to protect human lives and property in conjunction with threats that cannot be controlled by means of mitigation measures or from which only partial protection is achieved. Thus, preparedness activities are based upon the premise that disaster impact will occur and that plans, procedures, and response resources must be established in advance. These are designed not only to support a timely and effective emergency response to the threat of imminent impact, but also to guide the process of disaster recovery.
Disaster Area	Refers to any area in which disaster occurs for which it is declared to be such an area in this plan.
Drowning	The process of experiencing respiratory impairment from submersion/immersion in liquid."

Terms	Definitions
Emergency	Refers as event involving a minor consequence for a community-perhaps a few casualties and a limited amount of property damage e.g. car crashes, natural gas pipelines, house fires, traumatic injuries and cardiac crises. Emergencies are events that can be managed successfully with local resources.
Enabling Environment of Drowning	Means a condition for influencing or minimizing the causes of drowning. It includes the absence or presence of policy, legislation, SOPs, guideline or monitoring system. For examples, shortage of policy, regulation, strategies, standards operation procedures, guidelines, monitoring and surveillance system, limited coordination system, limited resources for risk reduction of drowning, and shortage of risk assessment management and evaluation is enabling environment for causes of drowning.
Emergency Response	Refers to activities that are conducted during the period that begins with the detection of the event and ends with the stabilization of the situation following impact. The goal of emergency response is to save lives and property by positioning emergency equipment and supplies; evacuating potential victims; providing food, water, shelter, and medical care to those in need; and restoring critical public services. Some of the more visible response activities undertaken to limit the primary threat include securing the impact area, evacuating threatened areas, conducting search and rescue for the injured, providing emergency medical care, and sheltering evacuees and other victims. During the response stage, emergency managers (incident commander) must also continually assess damage and coordinate the arrival of converging equipment and supplies so they can be deployed promptly to those areas with the greatest need.
Evacuation	Means an operation whereby all or part of a particular population is temporarily relocated, whether individually or in an organized manner, from an area in which a disaster or emergency is imminent or has occurred.
Exposure	The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas.

Terms	Definitions
Early Warning System	Means a programme established to monitor and warn of the threat of disasters ahead of time, to trigger timely, appropriate preventive measures. Such a programme involves monitoring at household, community, shehia, district, and national levels.
Hazard	Means a potentially damaging physical event, phenomenon or human activity that may cause loss of life or injury, property damage, social and economic disruption, or environmental degradation.
Infrastructure	The physical structures such as roads, telecommunication line, power lines, water lines, schools, hospitals that facilitate commerce, transportation, and quality of life in each region.
Natural Disaster	Means a disaster that arises from the interaction of natural phenomenon and includes such occurrences as earthquakes, hurricanes, floods, drought, fire, or epidemics.
Man-Made Disaster	Means a disaster that arises from the act of human being causing a catastrophic situation which includes civil disturbances, riot and war, oil spills, influx of refugees, industrial accidents, and all kinds of transport accidents.
Person with special needs during emergences	Refer to a potential participant whose individual physical, mental or health-related situation is such that his/her participation in the activities/mobility action during emergence would not be possible without extra support. It includes aged peoples, children, disable people, health problems or people living with mental health problems.
Vulnerable group	Means a person or group with low capacity to anticipate, cope, resist and recover from the impacts of natural and man-made disaster. This includes people living in vulnerable and risk area, aged people, prisons, children, women, people with special needs and people living with disability.
Standard Operating Procedures (SOPs)	Means the approved methods for accomplishing a task or set of tasks. SOPs are typically prepared at the department or agency level. They are also referred to as Standard Operating Guidelines (SOGs).
Risk Mapping	A risk mapping is a data visualization tool for communicating specific risks an area or community faces. A risk map helps country to

Terms	Definitions
	identify and prioritize the risks associated with their community.
Risk	Means the probability of harmful consequences or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.
Risk Assessment	Is the identification of hazards that could negatively impact a community ability to conduct their daily social and economic activities. These assessments help identify the hazards, vulnerability and capacity and provide measures, processes, and controls to reduce the impact of those hazards.
Vulnerability	Refers to social and material conditions derived from characteristics of individuals and groups that make them susceptible to harm and loss from environmental hazards and that constrain their ability to cope with the adversities of disasters.

Chapter One

1. Introduction

1.1. Background

Currently, according to the Global Burden of Disease (GBD), worldwide in 2016, 4.1 drowning deaths occurred per 100 000 persons accounting for an estimated 302 932 deaths, of which 90% occurred in low-income and middle-income countries (LMIC)[15]. It is the third leading cause of unintentional injury death worldwide, accounting for 7% of all injury-related deaths[16]. The systematic review estimated that the average incidence of fatal drowning across Tanzania is 5.1/100 000 person-years, but the incidence was highly variable across regions, reaching up to 16.7/100 000 person-years in the Geita region adjoining Lake Victoria[17]. The Indian Ocean coastline of the mainland is approximately 1420 km long, and Tanzania also has an abundance of inland water covering about 60 000 square kilometres or about 6% of the national surface area. Currently, there is no data on estimated deaths of drowning in the Indian ocean, but a significant number of deaths are reported annually. The mostly drowning deaths reported are caused by sinking of boats, sea excursion, fishing, and aquaculture activities. For example, for the year 2021 to 2022, seven people (7) are reported to die due to drowning in water stagnant inland such as pond and storm water drainage system while 12 people died in digging well.

1.2. Zanzibar Blue Economy Sector and Drowning Concern

Zanzibar prioritizes the Blue Economy as a pathway to the fast-tracked development of Zanzibar. The blue economy activities contribute about two thirds of the country's Gross Domestic Product (GDP) which expected to accelerate the development in the alignment with the Development Vision 2050, to upper middle-income status by 2050.[18] The country will therefore have to grow four-fold in terms of per capita GDP in the next 30 years to realize this aspiration.

Fisheries: Fish production in Zanzibar is of great importance to the local economy. Fishing is practiced throughout the year, but peak seasons depend on the monsoon winds. The fisheries are predominantly artisanal; the gear used to be traps, hook-and-line, nets of various mesh and twine sizes and spears, and the vessels used to be mainly dugout canoes, outrigger canoes, boats and dhows propelled by sails, with increasing usage of outboard engines every year. The official estimate shows that the total number of fishers at 50,218 fishers, out of whom 43,080 are male (86%) and 7,138 are female (14%). The total number of fishers harvest using vessels is 35,652 and the number of fishers who harvest on foot (foot fishers) is 14,566.

Seaweed and Other Aquaculture: Zanzibar aquaculture activities include seaweed, sea cucumber, crab fattening, fish and bivalves are commonly cultivated in Zanzibar. The seaweed cultivation in Zanzibar started at the beginning of 1989 where many

[15] GBD 2016 Causes of Death Collaborators. Global, regional, and national age-sex specific mortality for 264 causes of death, 1980-2016: a systematic analysis for the global burden of disease study 2016. Lancet 2017;390:1151–210.

[16] WHO. 2018. Global report drowning Preventing and Leading Killer

[17] Sarrassat S, Mrema S, Tani K, *et al*. Estimating drowning mortality in Tanzania: A systematic review and meta-analysis of existing data sources

[18] Gender and Blue economy in Zanzibar. 2023.

farmers are female. According to data of 2020, Zanzibar has more than 15,000 seaweed farmers, where more than 90% are old women. The seaweed cultivated are in Zanzibar 54 coastal villages in Unguja and 34 Villages in Pemba. Sea cucumber aquaculture is a new opportunity in Zanzibar. The price and demand of sea cucumber are increasing every year. Prices of sea cucumber vary by size and type. Amongst the highest valued species is *H. scabra*, cultivated in Zanzibar, with an average retail price of US $ 369 USD/kg.

1.3. Tourism

The tourism sector is very important to the economy of Zanzibar. The growth of the percentage share of tourism in GDP as well as increased visitor expenditure and numbers are evidence of Zanzibar's appeal as a destination. It is estimated that tourism accounts for more than 27 percent of Zanzibar's Growth Domestic Product and 80 percent of foreign exchange earnings. The number of international visitors is forecast to increase to 360,000 and 500,000 in 2016 and 2020 respectively. The numbers are expected to be served by at least 420 accommodation units, 305 tour operators, 48 diving Centers and 98 registered boutiques shops. Zanzibar potentially offers a mix of beach, marine, historic and destination tourism but beach tourism is the dominant attraction. Tourism has direct links to sectors which supply and provide tourists services such as accommodation, restaurants, tours, retail, and transport. The tourism sector is a significant sector of the blue economy. Most of the tourism activities is the ocean excursion such as surfing, snorkeling, diving, and safari blue.

1.4. Maritime Trade and Infrastructure

The maritime sector can broadly be divided into four main industry categories: shipping, marine industry, ports industry, and marine business services. The shipping industry includes transport of people and freight; the marine industry comprises ship and boat building, marine support to oil and gas and other marine mining activities, recreational activities, and marine sciences; the ports industry includes warehousing, stevedoring, passenger handling, and port management; while marine business services include ship broking, survey and classification, maritime insurance, and other ancillary activities.

1.5. Energy

Zanzibar is a power deficit country, dependent on the import of electricity, Zanzibar has no exception, the access to energy is a key challenge. The Government's Blue Economy policy therefore reflects a mixed strategy involving both the conventional and the renewable energy sectors. Currently, efforts are underway to build institutional capacity, resources, skills and expertise for upstream oil and gas exploration. The demand for energy has increased with growth in the tourism, housing, transport, and agriculture sectors, rising by nearly 60 percent from 2013 to 2020.

1.6. Ocean Governance

Ocean governance involves policy, acts, actions, and affairs regarding the oceans to protect ocean environment, sustainable use of coastal and marine resources as well as to conserve its biodiversity. It involves the management of all blue economy sectors to ensure the sustainable utilization of marine resources. The process of ocean governance

should be integrated horizontally because it requires the participation of governmental institutions, the private sector, NGOs, academics, scientists, etc., as well as vertically across all of levels of governance within an integrated system with reciprocal collaboration and coordination.

1.7. Zanzibar Disaster Profile

Globally, the number of recorded disasters in the world has doubled from approximately 200 to over 400 per year. The severity of the disaster is well connected with weak preparedness, uncertainty in projection and forecasting system, warning system capacity and weak response capacity. The disaster risk profile and mapping conducted in Zanzibar in 2018, 2021 and 2023 revealed that Zanzibar has a higher risk likelihood of marine related disasters. Marine accidents are the predominant man-made disasters which are reported to occur every year, especially in the rural fishing community and travelers of Zanzibar.

1.8. Ocean Related Drowning Incidents

Drowning is among marine disasters reported to cause death and missing in Zanzibar. It is reported as among the major marine accidents reported annually[19]. The accidents mainly reported to the people engaged in aquaculture, fishing, sea weed farmers, marine transportation, tourism, and sporting activities such swimming and surfing are reported to drown every year. The main causes are poor swimming skills, limited law enforcement, limited warning communication, absence of regulation to manage ocean activities.

The two unforgettable marine accidents in Zanzibar consequently occurred in 2011 and 2012. The accidents involved two large ferry ships (Spice Islander and Skagit) operating between Zanzibar (both Unguja and Pemba) and Dar-es- salaam, resulting in substantial deaths and loss to thousands of people. The sinking of Spice islander caused 1529 deaths and 941 missing, whereas the sinking of Skagit caused 293 death and 154 missing[20]. The study conducted to assess disasters associated with the blue economy, identified drowning as among highest risk incidents.[5] The exposure of Zanzibar population is significantly high due to high movement of Zanzibar population in the ocean. For example, in 2022 about 2,823,520 passengers were handled at Zanzibar seaports. This data showed that, the population mainly use marine transport vessels in their travelling[21]. However, the number could be underestimated considering the poor vital registration and community reporting system in Zanzibar.

[19] DMC. 2023. Assessment of Blue Economy related Disaster

[20] United nation office for disaster risk reduction. 2015. Review of Zanzibar: Working Papers on Public Investment Planning and Financing Strategy for Disaster Risk Reduction. UNISDR.

[21] Statics Abstract, 2022

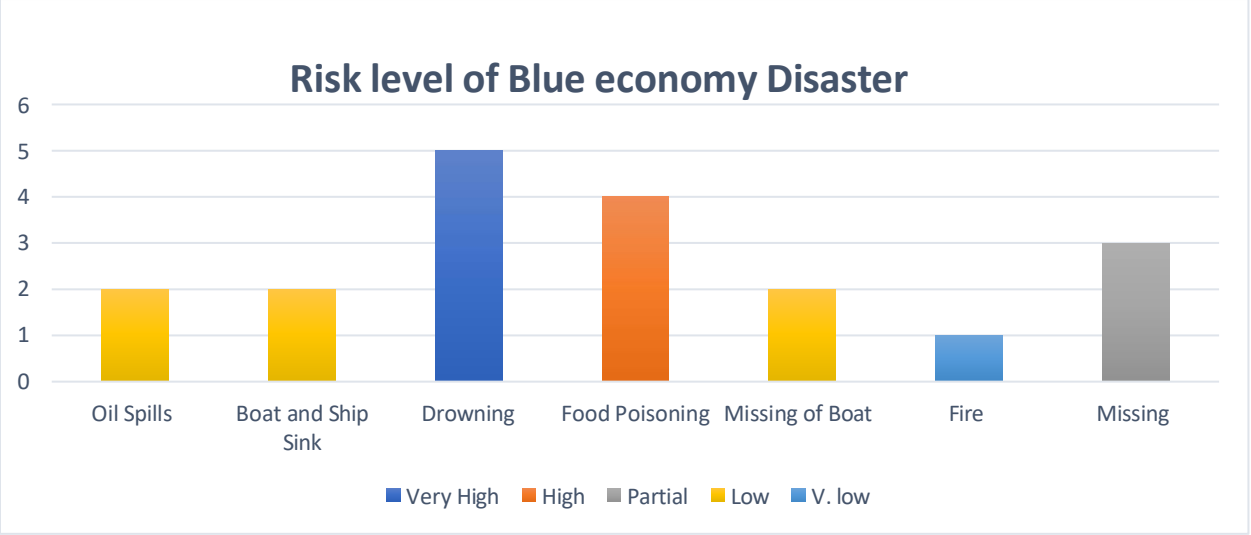


Figure 1: Show the risk level of blue economy related disaster in Zanzibar. Source: DMC report Assessment of Disaster associated with blue economy, 2023.

1.9. Inland Drowning related Accidents in Zanzibar.

Inland drowning involves the drowning in swimming pools, wells, stagnant water in dams of holes, streams, small rivers, and storm water drainage. Zanzibar experiences several cases of inland drowning particularly during the rainy season. The inland drowning includes swimming pools, stagnant inland water in holes, small dams, and storm water drainage systems particularly during the rainy season. For example, for the year 2021 to 2022, seven people (7) are reported to die due to drowning in water stagnant inland such as pond and storm water drainage system[22].

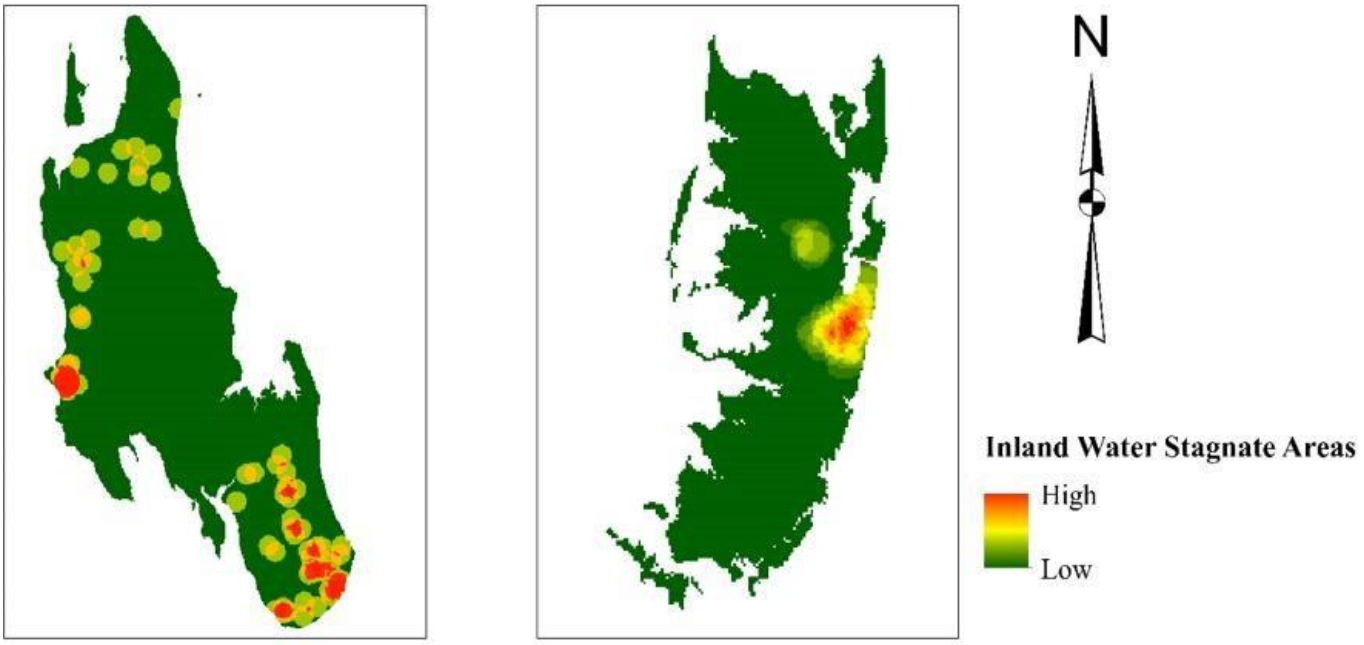


Figure 2: Figure show inland water stagnate area in Unguja and Pemba

Zanzibar has about 398 hotels graded from one to five star[7]. About 90% of these hotels have swimming pools with various depths and sizes. Swimming pools drowning are among drowning incidents that have been reported in hotels and residential areas due

[22] KZU. 2023. Data of Drowning Related Death

to limited monitoring of swimming pools. This situation analysis reviews the existing enabling environment, prevention, and response capability to manage the drowning in Zanzibar.

1.10. Risks of Population on Drowning

This situation assessment identifies the risk of population drowning based on the following key issues.

Review available of drowning historical cases through assessing the causes and its impacts.

- Analyzing the existing capacity of drowning prevention on population
- Review the policy, acts, regulation, and SOPs on supporting drowning prevention.
- Assess resources allocation prevent and respond to drowning incidents.
- Analysis current coordination and operationalization to various stakeholders.

The situation found the large population of Zanzibar are vulnerable to drowning, this is due to higher level of exposures through daily life activities such as socio-economic activities, transportation, and geographical location. Therefore, the situation analysis categorizes the following risk population.

Group of Risk Population	Factors
	Higher Risk
Seaweed Farmers	Limited of swimming skills, mostly are aged women
Children 1-15 years Old	Limited supervision, Limited swimming skills, Presence of Inland stagnant water and ocean beaches
Smalls islets locality	Extremely uses of Local boats, Limited uses of lifejacket, Overloading of local boats, No supervision and law enforcement
Fishermen with Vessels	Limited uses of Limited uses of lifejacket, Overloading of local boats
Foot Fishermen (Those who fish in low tides)	Limited uses of Limited uses of lifejacket
Tourist	Limited uses of Limited uses of lifejacket, Overloading of local boats, surfing and using substandard local boats.
	Moderate Risk
Formal Passenger Boat	Regulation and follow up of SOPs
	Low Risk

1.11. Main Objectives

The main objective of this situation analysis was to assess the risk factors, enabling environment, prevention, and response capability of drowning Zanzibar to provide information for the development of five years National drowning Prevention Action of Zanzibar**.**

Specific Objectives:

1. To assess existing enabling environment of drowning in Zanzibar
2. To assess existing prevention intervention of drowning in Zanzibar
3. To assess existing response capability and mechanisms for responding on drowning in Zanzibar

Chapter Two

2. Methodology

2.1. Location

This situation analysis of drowning was conducted in Zanzibar. Zanzibar archipelago consists of several small islands and two major islands – Unguja and Pemba, with the land areas of 1,666 km^2 and 988 km^2 respectively. Zanzibar is located between latitudes of 4°S and 6°S and between longitudes 39°E and 40°E, and about 40 km off the coast of mainland Tanzania (Fig. 1). Apart from the two sister islands (Unguja and Pemba) other residential islets include Tumbatu and Uzi, Kisiwa Panza, Shamiani, Makoongwe, Kojani, Fundo, Kokota, Uvinje and Njau.

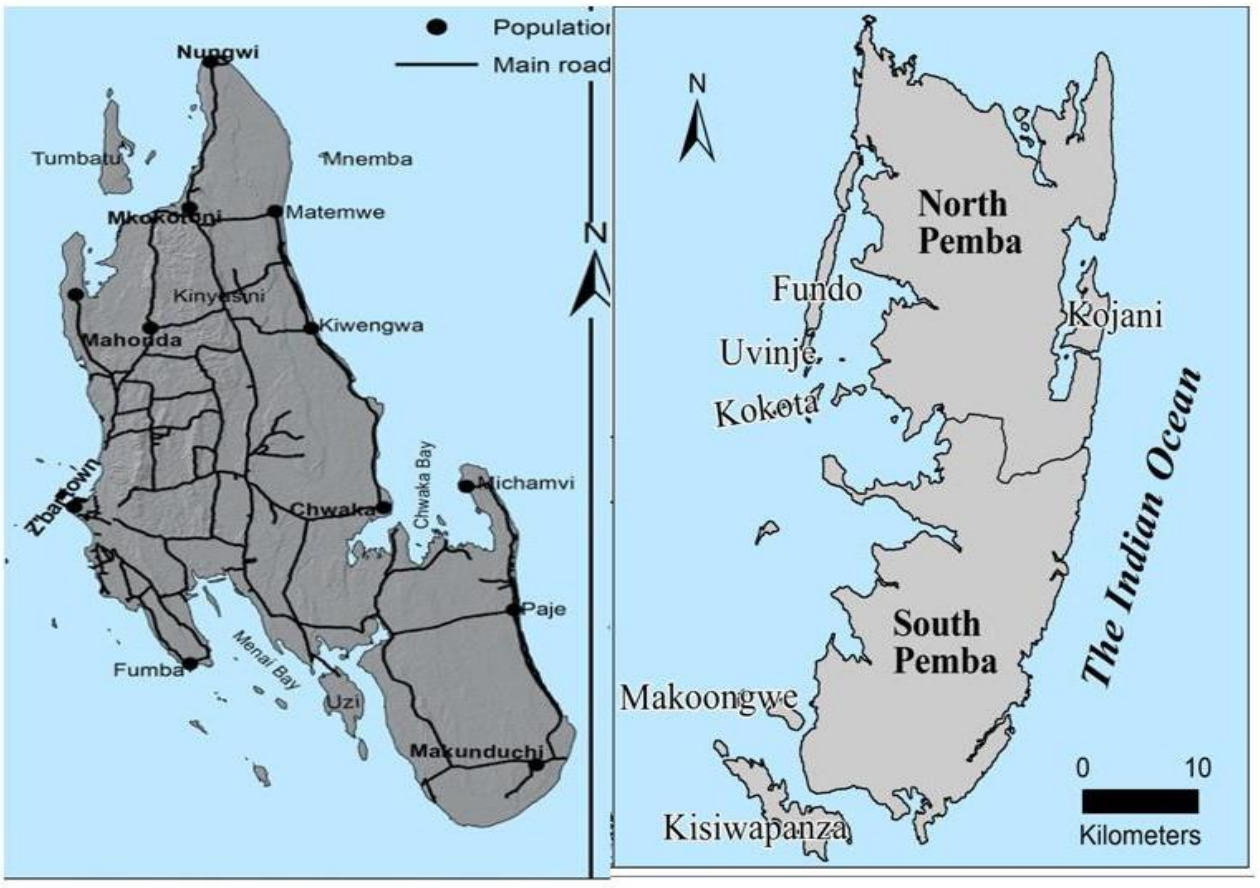


Figure 3: The area work Plan will be Implemented.

2.2. Weather and Climate

Zanzibar is experiencing a tropical maritime climate. The climate of Zanzibar is highly influenced by the Manson wind systems, and it is predominated by binomial rainfall pattern. The heavy rain (Masika) occurs between March and June, and the short rain season (Vuli) occurs in October and ends in December. Arguably, the rainfall patterns, frequency, and sequence, so do other weather conditions, have drastically shifted partly due to climate change. The highest temperatures in the archipelago occur during the dry season (between late November and February). The maximum and minimum average temperatures are 33.0°C and 23.3°C respectively.

2.3. Water Sources

Like other small islands, Zanzibar obtain its fresh water for household consumption mainly from underground aquifers. However, water supply and freshwater availability vary between the islands in the archipelago. Rainfall is a very

important source of water for recharging the underground water lenses, thus it (the rainfall) is the predominant source for supporting the underground aquifers. Unlike Unguja island, the geohydrology of Pemba Island forms discontinuous perched aquifers, which fail to recharge seasonally. Additionally, rainfall run-off is higher in Pemba Island than Unguja island because of its hilly morphology and geology structure.

2.4. Population

According to the 2022 census, Zanzibar has a population of 1,889,773 people, with women making up 51.1%. The sex ratio is 94 males per 100 females and the population growth rate is 3.7%. About forty seven percent (47.26%) of Zanzibar population live in the Urban West Region[23].

Table 3: The table show population of Zanzibar.

s/n	District	Number of household	population
1	Urban	46236	219007
2	West "A"	64828	329645
3	West "B"	71015	344517
4	North "A"	33257	157369
5	North "B"	21553	99921
6	South	16440	63156
7	Central	30570	132717
8	Mkoani	23229	135052
9	Chake-chake	24557	136298
10	Micheweni	21948	123379
11	Wete	26627	148712
TOTAL		**380260**	**1889773**

2.5. Economic Activities

Zanzibar economy depends on tourism, cloves, and Fisheries. Tourism sectors contribute 27% of GDP while fisheries sectors are 23%. Fisheries and aquaculture sectors are currently the strategic sectors for economic and social development of Zanzibar. The sector is recognized in the Zanzibar Development Vision 2050, Zanzibar Blue Economy Policy 2022, Zanzibar Development Plan (2021-2026) and the CCM Election Manifesto 2020-2025, as key contributing sectors to the national economy and employment. The sector has experienced rapid growth in the last two years in terms of production and productivity and is currently considered as a blueprint for Zanzibar socio economic development.

2.6. Type of Study

Considering the Terms of References and objectives of the study. This report conducts a situation analysis of drowning in Zanzibar through using three pillars of enabling environment, prevention, and response. Therefore, the study adopted qualitative methods, and critical review to obtain the required information.

2.7. Data collection methods

[23] Tanzania Census Report 2022

The qualitative methods used are key informant interviews (KIIs) using structured checklists to selected key stakeholders. Additionally, the study engages selected NGOs, to participate in this analysis.

The KIIs was conducted based on three pillars of enabling environment, prevention, and response. The stakeholders involved in KIIs were Zanzibar Maritime Authority, Tanzania Meteorological Agencies, Kikosi Maalum Cha Kuzuia Magendo (KMKM), Occupation Health and Safety, Fire and Rescue, tours operators, commission of tourism, Municipal Councils, Swimmers association, Ministry of Education, ZAWA, Panje Project, WCS, Mwambao Coastal conservation.

Field Work:

The data was conducted manually using notebooks – paper based and voice recording via mobile phones. The manual method was preferred based on the nature of the study (qualitative) which paid more attention on gathering descriptive information from the stakeholders/respondents.

KIIs were conducted involving Deep Sea Fishing Authority (DSFA), Fire and Rescue, KMKM, Occupation Health and Safety, Ministry of Health (Public Health Emergency and Communication Center), Zanzibar Port Authority, Department of Fisheries Development and Marine Resources, Zanzibar Maritime Authority (ZMA), Tanzania Meteorological Authority (TMA), Zanzibar Fisheries Company (ZAFICO), , commission for tourism, Mwambao Coastal Community, tour guide operators, and Milele Zanzibar Foundation, tour guide and District Disaster Management Officer.

Chapter Three

3. Result of the situation analysis.

This chapter describes the results of the situation analysis of drowning in Zanzibar through assessment of the risk factors, factors influencing and practices for management of drowning. The chapter describes the results obtained through three Pillars of Enabling environment, response, and prevention of drowning in Zanzibar.

3.1. Enabling environment for drowning in Zanzibar

The enabling environment covers the indicators related to the institutional arrangements, plans, acts, regulation, policies, resources, and practices to support a positive performance management in the community. According to Zanzibar Risk Profiles of 2018, 2021, 2023, and Assessments of disaster associated with blue economy revealed that, marine accidents such as drowning, is influenced by shortage of policy, regulation, strategies, standards operation procedures, guidelines, monitoring and surveillance system, limited coordination system, limited resources for risk reduction of drowning, and shortage of risk assessment management and evaluation. This situation analysis found the following key enabling environment for influencing and management of drowning in Zanzibar.

3.2. Multi-Sectoral Direction and Coordination of drowning in Zanzibar.

This is a top-down emergency response structure that specifies who is in charge and who reports to whom. The coordination and direction of all emergency response activities, including making sure that the response is governed by the applicable legal framework of the Disaster Risk Reduction and Management Act, No. 1, 2015. The act provides powers to DMC to coordinate, direct and control all activities on management of minor and major disasters. Establishing this structure ensures all concerned agencies understand their responsibilities and are ready to respond in a coordinated manner when a disaster occurs.

The commission is under the Second Vice President Office (SVPO) and its composition and functions are detailed in the Act. The commission is the principal actor and the overseer of disaster management and risk reduction processes in Zanzibar. Also, the Act establishes the Secretariat of Commission which is headed by the Executive Director and structurally allows for the Secretariat to be divided into divisions. On the other hand, the Act establishes a vertical and horizontal integrated framework of Committees. The vertical integrated structure for the committees is such that, at the country level is Technical Committee, at the district level are the District Disaster Management Committee and District Disaster Management Technical Committee, and at Shehia level is the Shehia Disaster Management Committee. Moreover, the structure allows other private sectors, NGOs, CSOs and international organizations to be a key responsible agency to support disaster risk reduction, management, prevention, response, and recovery in Zanzibar.

The drowning is identified as among marine disasters which mainly coordinated with DMC and other government agencies such KMKM, ZMA, KVZ and other local NGOs such as Tanzania Redcross, Panje are among others. However, this baseline found the following key challenges in coordination and management of drowning accidents particularly for prevention and responses.

- Absence of safety coordination structures on drowning to the other sectors such as Ministry of Blue economy and fisheries lack the safety coordination department that can link the communication of drowning incidents and other marine related disasters.
- Limited information share between stakeholders
- Duplication between actors. For example, drowning incidents record and reporting

Recommendations:

The analysis recommended that there is review of the reporting system, communication, and information shared between stakeholders regarding the drowning events in Zanzibar. Establishment of designated focal person to record and sharing of information of drowning events will help to reduce duplication of information and practices.

3.3. Legal framework (Acts and Regulations)

The situation analysis of drowning in Zanzibar reviews the existing acts, policy and regulations to the various areas which are higher risk on the drowning in Zanzibar. The aim of reviewing acts and regulations is to understand the legal status on management of drowning in Zanzibar. The review revealed that, the Zanzibar disaster Act 1 of 2015 consider all natural and man-made events and direct the coordination of hazards from sectorial to national levels. However, the regulation of marine related hazards such as drowning is placed in sectorial regulation such Zanzibar maritime authority, Zanzibar water authority, Local government authority and Ministry of fisheries and blue economy. The analysis of Zanzibar maritime acts, regulations, and Standards operational procedures prioritize the safety of marine users. ZMA maritime have significant numbers of regulation for management of marine safety. However, all regulation mainly focuses on ships which may lead limited monitoring on other small vessels inspection such as fisherman boats and local marine transportation. For example, the regulation of crew list regulation which direct registration of all crew should be registered before vessels operate its services does not practice for many fishermen[24]. This leads the limited of information when the drowning or missing happen. Similarly, the small vessels that transport passenger to small islets or tourism for excursion does not register their name as directed by ZMA passenger regulation. Moreover, the fisheries sectors observed to have limited regulation for management of safety on fisheries and aquaculture which mentioned among the vulnerable group of drowning and missing.[4,5] Fisheries sector use fisheries regulation of 1993, which does not provide any directives regarding to the fisherman safety and prevention of disaster risk during fisheries activities.

Therefore, the review of acts and regulations identified the following key challenges.

- Limited practices of ZMA acts, regulations and Standards operation procedures to fisheries, local boats, and tourism excursion activities
- Limited practices of inspection for vessels regulation
- Limited regulation for management of fisheries and tourism sectors in safety in the sea.
- Absence of regulation or SOPs to manage swimming pools.

3.4. Monitoring and Surveillance system.

The situation analysis assesses the existence of monitoring and surveillance on drowning in Zanzibar. The assessment focuses on identifying systems used to track risk factors of drowning in Zanzibar, plans or strategies used to prevent drowning cases in Zanzibar. The assessment revealed that there is no designed monitoring and surveillance system to identify, assess and record the factors influencing drowning in Zanzibar. The recording system of drowning data and information is fragmented between all sectors. The data and information are not well organized and mainly present to the organization. For example, KZU, KMKM and Tanzania police Force records drowning information and data which

[24] The crew list regulation of 2006

lead into problems of reliable data. This led to poor monitoring and surveillance of the drowning events in Zanzibar. Therefore, the situation analysis observed the following challenges.

- Absence of formal monitoring and surveillance system
- Absence of integrated data system for reporting and recording drowning accidents.

Recommendations.

The situation analysis recommends establishing an integrated monitoring and surveillance system to prevent duplication and enhance effectiveness of monitoring of drowning incidents in Zanzibar.

3.5. Law Enforcement

The law enforcement is the implementation of acts, regulations and guidelines developed to regulate marine related disasters such as drowning. The study of assessment of blue economy related disasters revealed that, there are limited practices of some regulation developed to manage maritime sectors. For example, the Act of Maritime Transportation of 2006 directs the identification of passengers before they are traveling. However, the situation found that local boats such as boats travelling to all small islets do not register their passengers. Additionally, the Acts and marine safety regulations direct the vessels should load passengers based on the size. Although, the evidence from the study[5] revealed that, local boats are regulated to board according to capacity. Moreover, the existence of more than 700 informal ports declines the implementation of safety acts and regulations. The formal ports which are used by both cargo and informal passengers. Therefore, this situation analysis found the following key challenges.

- Poor practices of marine transport acts and its regulations
- Absence of passenger registration for passengers particularly local boats
- Presence of large numbers of unmonitored informal ports

Recommendation:

Based on the findings from the situation analysis, there is a need to develop specific regulation for management of small vessels in Zanzibar. This will help to enhance effective monitoring of small vessels to reduce risk of marine accidents.

3.6. Capacity on Management

The capacity assessed was included in the sectorial capacity in management of drowning events in specific sector. The analysis of institutional was based on presence of response system, resources, and plans for management of drowning in Zanzibar. The assessment of fisheries sectors revealed that, absence of plan and resources allocated to management of drowning and other marine incidents. The resources are mainly allocated for the development of fisheries and aquaculture sectors such as seaweed development, fishing, and aquaculture activities. The fisheries policy of 2022 have limited priority to the safety of fisherman[25]. The implementation strategy of fisheries policy mainly focusses of increase fisheries production. In nutshell, fisheries sectors observed to have limited initiatives on management of marine accidents such as drowning. Therefore, situation analysis found the following key challenges.

[25] Zanzibar Fisheries Policy Implementation Strategy, 2022

- Limited of mainstreaming marine safety such as drowning prevention in fisheries plans, and implementation strategies.
- Limited of capacity to conduct surveillance system.

Recommendation.

The assessment recommends the mainstreaming marine disaster risk reduction in the sectorial budgets and planning. This will help to enhance resources availability for management of drowning and other marine accidents in Zanzibar.

3.7. Prevention of drowning in Zanzibar

The prevention of disaster is a prioritized in DMC strategy, policy, and Plans. The situation analysis assesses the prevention initiatives to understand prevention efforts for preventing drowning incidents in Zanzibar. This includes presence or absence of education program that ensure every child in Zanzibar can learn basic water safety skills in both primary and secondary schools, awareness programs on drowning in all levels, trained experts in Community Water Safety, Rescue Boat, Lifeguarding, Pool Safety guidelines and procedures and Swim Instruction, public drowning prevention equipment and environments, early warning system, physical barrier on drowning risk area such as fencing, management of flood risk, management on coastal and swimming pools, communication system and presence of registry.

3.8. Awareness and Social Behaviour

The situation analyses the presence of awareness programs to the community at national and community levels. The discussion with sectors, NGOs and community groups revealed that there are limited awareness programs offered to sensitize communities on drowning prevention. This led to low community initiative to prevent or mitigate drowning risk in the community. The assessment conducted on disasters associated with the blue economy revealed that, the risk group of marine accidents such as drowning, have low awareness on using drowning prevention equipment such as using life jackets during their daily activities such as fishing, aquaculture activities and marine transportation services. Moreover, the study described that sea excursion activities such as surfing are not aware of using life jackets. Therefore, the situation assessment found the following concern.

- Limited awareness on drowning risk to the Zanzibar community.
- Limited awareness on wearing of lifejacket to the ocean related activities.
- Low awareness to the community to follow warning system provided by authorities.

3.8.1. Training and Education.

The situation report analyzes the presence of education and training programs on drowning prevention. It assesses the presence of training such as swimming, lifeguards, water safety are among others. The situation assessment revealed that, limited training programs such as swimming to the formal education and community. This contributes to low numbers in the Zanzibar community that can swim. Additionally, the training skills of swimming is not integrated in the school curriculum of Zanzibar. However, the situation

analysis revealed that, Panje project provides training to some coastal schools and seaweed farmers in Zanzibar. Therefore, the situation analysis found the following key concern.

- Limited swimming training in Zanzibar
- Limited implementation of swimming skills trainings in Zanzibar school

3.8.2. Barriers and Instruction to Risk zone.

During situation analysis the assessment on management risk zone areas such as stagnant water area, and coastal zone management was analyzed. The field visit along the stagnant water area was conducted. The observation revealed that there are many stagnant water areas in Unguja and Pemba. But none of the areas are fenced or warning instructions direct the risk of the area. The areas are reported to cause numerous drowning deaths particularly during the rainy season. For example, in the urban west region there are several inland stagnant water areas which are surrounded by houses where the children play close to the stagnant area. Therefore, the assessment revealed the following key concern.

- Absence of barrier to the drowning zone area
- Absence of warning instructions to the inland drowning zones

Recommendation.

The situation assessment recommends that the areas which are observed to be at more risk of drowning should be fenced to reduce risk particularly during the rainy season. Similarly, the excursion area such as Forodhani should be regulated by authorities particularly during high tides.

3.8.3. Communication and Warning system.

Presence of an effective early warning and communication system is necessary for disaster risk reduction in Zanzibar. The study of assessment on disaster on the blue economy revealed that the early warning and communication system exists in Zanzibar. The institutional arrangement for early warning and communication in Zanzibar is well arranged. This includes the Presence of Disaster Management commission, Tanzania Meteorological Agency, and Zanzibar Maritime Authority for the management of disaster risk related to blue economy activities. However, the existing early warning and communication system is facing several challenges which decline its effectiveness. This includes poor early warning integration, limited community awareness, and poor system to disseminate early warning information to the locals.[5] This situation analysis of drowning found that, early warning and risk communication are facing similar challenges of effectiveness on both inland and ocean related drowning. Therefore, the study found the following key concern.

- Low community awareness on early warning
- Poor of integrating other sectors on early warning

Recommendation.

The analysis recommended that community awareness should be strengthened to create a community that can follow and act when they receive early warning.

3.9. Response of drowning in Zanzibar

Response to emergencies is a key responsibility of all actors during a disaster. It includes the response capability of resources for management of drowning incidents in Zanzibar. The situation analysis assesses the current capacity of rescue facilities and equipment, drowning rescue response guide, expertise to conduct rescue, community capability to conduct search and rescue, training on bystanders on safe rescue and resuscitation for reducing drowning mortality, monitoring, and surveillance system, multisectoral coordination on management and response of drowning, and data system guides interventional efforts. Therefore, the situation analysis revealed the following information.

3.9.1. Management of Drowning Cases:

The response capacity of the drowning cases is assessed through presences of operationalization guidelines, plans and Standards operation procedures, facilities, infrastructures and equipment, availability of integrated early warning and communication system, and capacity to reach in disaster areas. The existing structure for case management of rescue is managed by KMKM and Fire and Rescue special departments. The agencies have the designated emergency rescue facilities and staff in Unguja and Pemba.[5] However, the study[5] revealed that, there is low community capacity to conduct drowning cases management, due to low skills of community to conduct rescue and provide technical assistance such as Cardiopulmonary Resuscitation to the survivor. Similarly, this situation revealed the similar information of limited capacity of the community to conduct technical assistance of case management during the response of drowning incidents. Therefore, the assessment found the following key concern.

- Limited capacity of community to provide assistance during drowning incidents.
- Delaying of information of drowning accidents to search and rescue agencies.
- Limited of search and rescue facilities at community level

Recommendation.

This situation assessment recommended that; the community should be trained to provide assistance during response of drowning accidents.

3.9.2. Search and Rescue.

The effective response during marine accidents is a necessary area for disaster risk management. The assessment of blue economy related disasters revealed that, there is significant delay of providing on time responses during marine disasters such as drowning. The reasons are delaying of information to reach response agencies, community

awareness and delaying of agencies to reach the emergency area[26]. The experience of response during the major ferry disaster of 2009. It was taking more than 7 hours the response agencies to reach the area for search and rescue.[11] The search and rescue services are conducted by community's volunteers before the agencies reach the incidents area. Therefore, the situation assessment found the following key challenges.

- Low ability to conduct rescue in critical drowning area such as caves and deep-sea area.
- Delay of communication to the rescue agencies
- Delay of agencies to reach scene area.
- Shortage of search and rescue skills to the community
- Limited search and rescue facilities.
- Absence of search and rescue plan to the inland drowning

Recommendation
The assessment recommended that search and rescue training should be conducted at community levels. Additionally, the communication system should be strengthened to reduce delaying of response during drowning incidents.

3.9.3. Monitoring and surveillance

The situation analysis assesses the existence of monitoring and surveillance systems in response to drowning in Zanzibar. During response active case surveillance, proper documentation, case management and record keeping using appropriate tools. For example, proper data management for drowning incidents, will help to understand the frequency, and risk area to inform the response process. The surveillance activities during response must be carried out simultaneously at community, municipals, fisheries sectors, and marine transportation. The situation analysis found the limited integrated monitoring and surveillance system to guide, record and report. The information of drowning incidents is not well monitored which limits low response capabilities during drowning incidents. Therefore, the assessment found the following.

- Limited monitoring and surveillance system to monitor response of drowning.
- Limited of recording and reporting system

Recommendation.

The assessment recommended the establishment of an integrated monitoring and surveillance system that will facilitate effective reporting of drowning incidents in Zanzibar.

3.9.4. Resources capability for Response.

[26] United nation office for disaster risk reduction. 2015. Review of Zanzibar: Working Papers on Public Investment Planning and Financing Strategy for Disaster Risk Reduction. UNISDR.

Resources availability is necessary capability to facilitate response during drowning incidents. Historically, Zanzibar experienced major marine disasters of the ferry in 2009, 2011 and 2012 respectively. The death and missing were influenced by delaying the search and rescue response. The study revealed that there are two facilities for search and rescue on marine accidents and disasters in Zanzibar. The location of the search and rescue center is in the urban west region in Unguja (KMKM Head quarter) and Mkoani South region for Pemba. The center is equipped with two rescue boats, one for Unguja and one for Pemba. The search and rescue stakeholders describe that the rescue facility is not enough and needs to be increased because one center serves the whole area for Unguja and one for Pemba. This reduces effectiveness to reach on disaster area at time when drowning cases reported.[5] Similarly, the situation analysis found that resources to support search and rescue and other response services are limited particularly at community level such as fishermen and aquaculture. Therefore, the assessment found the following concern.

- Rescue facilities are not available in other side of the islets.
- Response capability should strengthen to enhance effective response during drowning incidents.

Recommendation.

The assessment recommends that the rescue facilities should be expanded and integrated into inland areas to support response at inland areas.

3.9.5. Communication

The existing communication network systems will be followed as presented in Disaster Management Act 1 of 2015 and ZDCS to maintain interoperability between all levels of government (national, district, and Shehia) and Non-State Actors (NSAs). DMC activated Disaster national communications strategy to activate all stakeholders during any emergency. The study[5] of blue economy related disasters revealed that there are several challenges hindering the effectiveness of communication on marine related disasters such as drowning. This led to delaying of response when the drowning incidents happened. This assessment also revealed the following key concern.

- Absence of integrated communication system to support effective response.
- Absence of emergency communication call to report drowning

Recommendation.

The situation assessment recommended that; the communication system should be strengthened to reach the local level.

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SECTION TWO

SITUATION ANALYSIS

Drowning is among disaster reported worldwide in 2016, 4.1 drowning deaths occurred per 100 000 persons accounting for an estimated 302 932 deaths, of which 90% occurred in low-income and middle-income countries (LMIC)[7]. It is the third leading cause of unintentional injury death worldwide, accounting for 7% of all injury-related deaths[8]. The systematic review estimated that the average incidence of fatal drowning across Tanzania is 5.1/100 000 person-years, but the incidence was highly variable across regions, reaching up to 16.7/100 000 person-years in the Geita region adjoining Lake Victoria.

2.1. Zanzibar Ocean Related Drowning Incidents

Drowning is among marine disasters reported to cause death and missing in Zanzibar. It is reported as among the major marine accidents reported annually[9]. The accidents mainly reported to the people engaged in aquaculture, fishing, marine transportation, tourism, and sporting activities such swimming and surfing are reported to drown every year. The main causes are poor swimming skills, limited law enforcement, limited warning communication, absence of regulation to manage ocean activities.

The two unforgettable marine accidents in Zanzibar consequently occurred in 2011 and 2012. The accidents involved two large ferry ships (Spice Islander and Skagit) operating between Zanzibar (both Unguja and Pemba) and Dar-es-salaam, resulting in substantial deaths and loss to thousands of people. The sinking of Spice islander caused 1529 deaths and 941 missing, whereas the sinking of Skagit caused 293 deaths and 154 missing[10]. The study conducted to assess disasters associated with the blue economy, identified drowning as among highest risk incidents.[5] The exposure of Zanzibar population is significantly high due to high movement of Zanzibar population in the ocean. For example, in 2022 about 2,823,520 passengers were handled at Zanzibar seaports. This data showed that the population mainly use marine transport vessels

[7] GBD 2016 Causes of Death Collaborators. Global, regional, and national age-sex specific mortality for 264 causes of death, 1980-2016: a systematic analysis for the global burden of disease study 2016. Lancet 2017;390:1151–210.

[8] WHO. 2018. Global report drowning Preventing and Leading Killer

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