

The Assessment of Institutional Frameworks Effectiveness and Their Influence on Collaborative Strategies Toward Effective Disaster Management and Emergency Response in Tanzania

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Submitted: 2024, Dec 12; Accepted: 2025, Jan 13; Published: 2025, Jan 31

Citation: Mushi, N, L. (2025). The Assessment of Institutional Frameworks Effectiveness and Their Influence on Collaborative Strategies Toward Effective Disaster Management and Emergency Response in Tanzania. *J of Cli Med Dia Research*, 3(1), 01-09.

Abstract

This study examined the effectiveness of emergency management and response planning in Tanzania with regard to major incidents that have occurred in the past versus contemporary disaster risks, emergencies and threats. Though, the level of community emergency preparedness culture for various categories of risk assessment and management still demands critical consideration in the perspective of emerging national and international challenges and incidents. Regardless of the deficiencies in emergency planning, Tanzania is vulnerable to both natural disasters and human related disaster and incidences that endanger livelihoods, properties and affects the reputation of the nation especially when not handled properly. This study recommends the effective collaboration strategies for disaster management and emergency response for future emergency planning in Tanzania by explored the roles of organizations in emergency planning at various levels, actions of Leading Agencies and other stakeholders and voluntary sectors, potential conflict and deficiencies in disaster management and emergency response. Therefore, cooperation both within and between agencies should be considered a crucial emergency management service. According to the recommendations, collaboration services are the combination and expression of three other services: cooperation, coordination, and communication. This study advances our knowledge of the connections between technology support and collaboration services in emergency management.

KeyWords: Institutional Frameworks, Collaborative Strategies, Disaster Management, Emergency Response

1. Introduction

The overall role of the government is to protect its citizen and to make sure they are free from any threat to their lives and their properties and to make sure that there are all necessary mechanisms to deal with emergencies and recovery.

Tanzania is vulnerable to disasters and human related incidences that endangers livelihoods and affect the reputation of the nation like hunger due to prolonged drought, severe flooding, wild fires, diseases, terrorism, adverse weather and accidents. These events when happen disrupt the vital services and infrastructures. According to Global Safety Partnership and the International Federation of the Red Cross, Tanzania loses approximately 3.4% of its GDP in caring for traumatized victims and burying casualties (IFRC, 2022).

Tanzania has the Disaster Management Act 2022 which provides measures and actions to counter adverse events and situations likely to threaten lives and properties of its citizens. According to

Disaster Management Act 2022, 'an Emergency is the situation or series of events that threatens or causes serious damage to human welfare, the environment or security in Tanzania.

This study examined effectiveness of emergency response framework in Tanzania by looking the roles of various emergency response actors as stipulated in the Disaster Management Act 2022, Disaster Management Policy and National Disaster Management Strategy 2022 – 2027, at various levels, Leading Agencies and other stakeholders and voluntary sector, potential conflict and deficiencies in disaster resolution and recommend necessary improvements for effective emergency planning, response and recovery.

Challenges faced in interpreting and implementing the established legislation, policies, strategies and plans for disaster management and emergency response in their areas of jurisdiction.

2. Methodology

This study used evaluative case study research design to examine intuitional frameworks and their influence on collaborative strategies toward effective disaster management and emergency response in Tanzania. Case study allows the author to investigate and examine the intuitional frameworks in Tanzania by using various sources of evidence. It also allows to study the application of collaborative strategies and how they are applied in Tanzania context and provide how to implement the framework. This design was used as it provides the opportunity to choose the topic and subtopics under the study and also it is flexible in data gathering and allow both qualitative and quantitative analysis of the information collected [1].

2.1. Data Collection and Sources

The literature review was used as the main instrument for data collection. This involved collecting information and data from existing reports and documents on community-based fire risk reduction initiatives and fire prevention. These included the variety of documents for analysis like newsletters, agendas, magazines, formal reports, different articles, books, presentations and brochures. It is the believed that these documents can provide crucial information to any study or topic as they cover a wide range of information sources, time span and various events and settings. Though the primary data are regarded as the compliment of the secondary data, due to the time limit of the study, the author used only secondary sources with the belief that the secondary sources used provide important information which would be collected from primary data sources.

2.2. Data Analysis

This study used mainly secondary data that were analysed by content analysis. Content analysis is used as it is readily-understood, inexpensive research method, unobtrusive, and does not require contact with respondents. Establishing reliability is easy and straightforward. Of all the research methods, content analysis scores highest with regard to ease of replication. Though the content analysis is purely descriptive, the findings can be used by other researcher in other studies.

3. Literature Review

3.1. Legal and Institutional Framework for Disaster Management and Emergency Response in Tanzania

This section explored the structural arrangement of disaster management and emergency response system in Tanzania. Basically, the study explored how the structure align to the established legal framework and how the layout might affect the execution of some duties among the key players in disaster management.

3.1.1. Legal and Policy Framework

Disaster Management responsibilities in Tanzania mainland is placed to the Disaster Management Unit (DMU), under the Office of the Prime Minister (OPM). Its functions and activities are carried according to the National Disaster Management Policy of 2004, the Disaster Management Act, 2022 (DMA) and the

Disaster Management Strategy, 2022. The Disaster Management Act established the Tanzania Disaster Management Division with the roles of supervising the management and activities of the Unit. The council has a mandate to integrate Disaster Risk Reduction (DRR) initiatives into pertinent government plans, strategies, and policies.

Further, the DMA provides the legal framework for the establishment of the National Disaster Risk Reduction Platform, the National Disaster Management Fund (NDMF), and the disaster management committees from the regional to the local levels (wards and villages) to implement DRR and humanitarian services. On the other hand, it is essential to highlight that, even though the DMA that was enacted in 2015 was not operational until its repeal on 2022.

3.1.2. The Institutional Arrangements

Tanzania has developed various policies and institutional frameworks for various disasters management. Policies include Disaster Management Policy of 2004; Environmental Management Act of 2004; National Operational Guidelines for Disaster Management; Disaster Management Act of 2003 for Zanzibar; Zanzibar Disaster Management Policy; Second National Strategy for Growth and Reduction of Poverty (NSGRP II); National Adaptation Programme of Action (NAPA, 2010); National Climate Change Strategy (2012); Guidelines for Integrating Climate Change Adaptation into National Sectoral Policies and the Disaster Management Act, 2022.

The Disaster Management Act (DMA), 2022, sets out a comprehensive legal framework for disaster risk management in Tanzania. It provides for the establishment of a national focal point for coordination of disaster risk reduction and management in the country through the Tanzania Disaster Management Agency (TDMA), acting as the central planning, coordinating, and monitoring institution for the prevention, mitigation, preparedness, response and post disaster recovery, considering all potential disaster risks. Currently this role is covered by the Prime Minister Office (PMO). The Tanzania Disaster Management Council (TADMAC) advises the Minister responsible for disaster risk management or any sector ministry on any disaster-related matter in the country detailed in the act.

In addition, disaster risk management in Tanzania is governed by the National Disaster Management Policy (2004) that has the overall goal to operationalise an effective and efficient disaster management system that aimed at minimizing possibilities of loss of life, property, and environment. Other disaster management policy tools include the National Operational Guidelines for Disaster Management, Tanzania Emergency Preparedness and Response Plan (TEPRP) and Tanzania Disaster Communication Strategy (TDCS). However, the implementation of these plans in all levels that were supposed to exist is slow across the country.

Also, there have been initiatives for capacity building in 20 districts between 2011 and 2018 that have Emergency Preparedness and

Response plans. However, the initiatives are slowly implemented and not extended to other districts, as well as incorporating multi disaster response plans into those plans.

National Operational Guidelines define responsibilities/mandates of various stakeholders in responding to various disasters. The guidelines cover the broad areas of mitigation, preparedness, response, and recovery. The guidelines have identified most common hazards in the country and have earmarked Lead and Support Agencies in handling them. Each Lead Agency is responsible for activating its own plans.

Further Tanzania has developed the National Emergency Preparedness and Response Plans that provide guidelines for coordination and response to various disasters and emergencies at all levels of the government. The plan aimed to facilitate the coordination for the delivery of resources and services necessary to deal with the consequences of an emergency or major disaster.

The plan intends to deal with emergencies and major disasters that create needs and cause suffering that the affected community(s) cannot respond without assistance, and that requires an extraordinary commitment of national resources.

Moreover, the Tanzania Disaster Relief Committee (TANDREC) is operational since 1990s at the national levels and its members are Permanent Secretaries from Ministries of Finance, Home Affairs, Water and Livestock, Defence, Lands, Agriculture, Planning, Education, Communication, Works, Community Development, Energy and Minerals and CEOs of Tanzania Meteorological Agency (TMA), Fire and Rescue Force and Food Security Department as early warning institutions. Its main function is to oversee and coordinate activities of the Government designed to secure effective prevention of disasters, preparedness, and operations in an event of a disaster.

Also, The Tanzania Urban Resilience Program (TURP) was established in 2016 as a partnership between Tanzania, the World Bank Group, and the UK Department for International Development (DFID) to support national and local governments in strengthening management of urban climate risk. Officially launched on May 31, 2017, TURP is now driving renewed engagement and deeper dialogue between the Bank and the Tanzania on climate resilience with a comprehensive strategy addressing risk identification, risk reduction, and emergency preparedness (TURP, 2018).

4. Findings

4.1. Disaster Management Act 2022

The Act, and its accompanying Regulations and non-legislative measures is the legal document that act as the single framework for civil protection in Tanzania. This Act provide the arrangements of the roles of the government departments and the devolved administrations which along with local responders form the foundation of the disaster management and emergency response and recovery to any major emergency in Tanzania.

The Disaster Management Act, 2022 (Act No. 6 of 2022) (DMA) and the Disaster Management Regulations, 2022 (GN No. 658A of 2022) govern disaster management-related activities. Disaster management committees have been established by the DMA at all levels, from the national to the local level. Depending on their level of authority, these committees are made up of government actors such as ministers, parliamentarians, police officers, and local government officials, and private organizations like Red Cross representatives to name a few.

Overseeing the administration of humanitarian aid in the event of a disaster is one of the Committees' duties and responsibilities. The regulations outline the process for gathering donations and humanitarian aid for those impacted by disasters [2]. The guidelines for gathering donations and aid for disaster victims are set forth in the Disaster Management Regulations of 2022, also referred to as GN No. 658A of 2022. Among these rules are restraining individuals from collecting aid without the appropriate disaster management committee's consent; mandating that the disaster management committee collect all aid; and requiring the disaster management committees to maintain records of all aid collected and their distribution to the victims.

The continuing process by which governments, corporations, and civil societies prepare for and lessen the effects of disasters, respond during and right after a disaster, and take action to recover after a disaster has occurred is depicted by the disaster management cycle. Taking the right steps at every stage of the cycle results in improved warnings, decreased vulnerability, increased readiness, or the avoidance of disasters in the subsequent cycle iteration. The development of public policies and plans that either alter the causes of disasters or lessen their effects on people, property, and infrastructure is a component of the full disaster management cycle.

As disaster management is improved in advance of a disaster event, the phases of preparedness and mitigation take place. Disaster risk reduction is incorporated into plans for development during this phase, and efforts are made to increase community and stakeholder capacity to deal with disasters. Government agencies and humanitarian groups participate in both the short-term response and long-term recovery stages of disasters. The four stages of disaster management depicted here don't always—or even typically—occur in this exact order or in isolation. The cycle's phases frequently overlap, and how long each phase lasts is largely determined by how severe the disaster was.

In the disaster management and emergency response operations, there are several key players in each phase and because the cycles are not necessarily a complete cycle, each player play its role depending on their regulatory responsibilities as described the following section. There are those who are involved with mitigation by minimizing the impacts of disasters and emergencies; those involved with preparedness planning like emergency drills and training; warning systems; those involved in response operations like search and rescue, emergency relief services, and sheltering

for victims; and lastly are those involved in recovery activities and planning like provision of temporary sheltering, grants and medical services and care [3].

4.2. Key Organizations and Their Roles in Tanzania Emergency Planning

Hazards and vulnerabilities affecting Tanzania include threats that are results of man-made disasters and accidents and those strike as a result of natural activities such as flooding, heat waves, drought, earthquakes, and persistent low temperatures (CIMA, UNISDR (2018). For example, floods of 2007, 2018 and 2023 killed 43 people, displaced more than 7,000 people and destroyed more than 55,000 properties. Similarly in 1998, a suicide terror attacks killed 10 people and injured more than 2000 individuals more in the U.S. Embassy bombings in Dar es Salaam, Tanzania . To improve Tanzania’s response and preparedness in emergency situations, the Tanzanian government established the Disaster Management Council (DMC) in 2001 (URT, 2015). Major disasters are handled at the Prime Minister’s Office in conjunction with the Lead Government Departments (LGD). However, in this

study, focus was given to Leading Agencies and other stakeholders and the voluntary sectors and how their framework affects disaster management and emergency response in Tanzania.

Tanzanian Government through the Disaster Management Department under the Prime Minister’s Office in 2022, improved the operational and regulatory framework for disaster management. They unveiled the National Disaster Management Strategy 2022–2027 as well as the Disaster Management Act (Act No. 6 of 2022) that repealed the Act of 2015. The National Disaster Preparedness and Response Plan 2022, National Disaster Communication Strategy 2022, and National One Health Strategic Plan 2022–2027 were also developed after thorough analysis and examination of the three earlier documents.

4.2.1 Leading Agencies

The Leading agencies are first responders that include emergency services, local authorities, hospitals, health centers and other agencies as shown in the table 1 below.

Responders	Roles
Emergency services	<p>Fire and Rescue Force and Police are leading responding actors in both national and local disasters. Management of the response is led by regional or district Fire Officer and Regional/ District Police Commander who chairs the Strategic Coordination Group (SCG). They coordinate inter-agency responses and determine the strategy of the response. During floods of 2022/2023 in at Dar es Salaam and Rufiji District at Coastal region police allowed the public to receive messages from trusted sources and give direct instructions to the public (FRF, 2023).</p> <p>Fire & Rescue handles large scale and catastrophic incidences by coordinating and developing an advisory framework structure. In the 2022/23 floods, the arrangements drawn by fire and rescue are still being used in cases of severe and widespread flooding.</p> <p>Ambulance services works with hospital to deliver injured persons to hospitals and provide preliminary treatment such as First Aid. Fire and rescue Force Ambulance, Red cross ambulance and Green crescent ambulance are major ambulance service providers in Tanzania. For example, being vanguard of emergency services, Red Cross and other ambulance services in 2024 treated more than 40 persons with horrific injuries in the Kariakoo building collapse incident that claimed the lives of 35 people [4].</p> <p>Tanzania Navy and Marine Police provide civil protection duties by coordinating and initiating civil maritime rescue and search with the Search and Rescue responders in Tanzania. It also handles major maritime pollution incidents like oil spills, major marine accidents. On 06th November, 2022, they offered search and rescue services to airplane crash accident in Bukoba – Kagera region where 24 survivors and 19 who dead in the scene were rescued to and transferred to hospital by rescue boats [4].</p> <p>Tanzania Traffic Police Unit just like other police units are limited and specialist in scope and manage incidents in regional and national roads network. They implement risk assessments and plans involving road transport issues.</p>
Local authorities	<p>These comprise county councils, district and borough councils and unitary authorities.</p> <p>Municipal and District councils prepare and respond to major emergencies that affect the environment or people in their localities. For example, in Dar es Salaam City council, they provide development, maintenance and production of plans that are integrated to the major emergency to minimize impact and resume normalcy quickly. The two-tier system divides roles and responsibilities among county and borough councils. They take key role in emergency recovery phase, establishment of primary humanitarian facilities and coordination of provision of welfare support to communities. They also work closely with relevant organizations and health agencies in response and aspects of emergency planning. Local authorities provide assistance and advice to voluntary organizations and businesses regarding Business Continuity Management (BCM).</p> <p>Unitary authorities have emergency planning teams and resilience forums. They provide social care services in conjunction with NHS, NGOs, independent providers and local specialist teams. Social care services can be obtained from health visitors, GPs, self-referral and voluntary agencies. For example, in December 2023, Hanang District compiled a list of important contacts for victims or affected persons during the landslide incident that affected more than 5600 peoples while at least 89 fatalities and 139 people sustained injuries and 15 were hospitalized (International Federation of Red Cross – IFRC, 20214).</p>

Health and Medical Services (HMS)	Health and Medical Services (HMS) provides specialist mental health and advice through GPs. It also delivers assistance, psychological support and optimum care to victims. In conjunction with Health Protection Agency, HMS leads in provision of information on any health aspects of the response to the public. HMS takes the lead role in prevention of disease spread, decontamination and treatment of affected persons after assessment. Hospital and health services treated more than 2700 injured persons as the results of road accidents and other incidents.
Other Agencies	Other agencies in primary response category include environment and health protection agencies. Health protection agency (HPA) provides information on health aspects of the response to members of the public. HPA not only handles infectious diseases and hazards like radiations but also advises and supports HMS, emergency services and local authorities. The National Environmental Management Council (NEMC) monitor air quality from major incidences, provides warning on river water abstraction, and mitigates on pollution at a limited scale. They also formulate and adopt recovery options using evidence-based practice to aid in remediation against environmental contamination (NEMC, 2024).

Table 1: Appraising the Responsibilities of Leading Agencies

4.2.2. Other Stakeholders

These are cooperating bodies less involved in central planning of emergencies but comes in to handle the aftermath. They include voluntary sector organizations, utility companies, and transport and health safety authorities. That the government shall have every citizen, institution, the private sector, Non-Governmental Organization potential and donor agencies as resource during emergency situation.

Utility firms include those that provide water, gas, and electricity and communication systems during emergencies. They prepare limited lists on help registers and are governed by own regulations and legislations on emergency planning. They have lesser duties of sharing and cooperating with regard to relevant information on leading and other agencies. Transport companies provide means to HMS centers and evacuation of population from the site or region of the disaster to safer areas. These include railways, airports and ports. Other organizations such as OSHA, NEMC and TAEC are involved in ensuring the health and safety of people in events of fire, collapsed building or leakage of poisonous industrial substances and radioactive materials.

4.3. Voluntary Sector

Voluntary sector involvement in emergency response and emergency planning in Tanzania is diverse and large, offering a range of expertise, skills and a range of services. These volunteer organizations include; the Tanzania Red Cross, green crescent, Salvation Army and Fire and Rescue volunteers. On emergency preparedness, volunteer organizations provide means of engagement in the planning phase and advice on their capabilities [6]. As provided in the Disaster Management Act, 2022, local responders when developing emergency plans have regard to the voluntary sector capabilities. This implies that those preparing plans need to integrate a broad spectrum of support and operational activities provided by volunteers and voluntary organizations. Individual volunteers can have specific skills, and not essentially members of an established organization like interpreters, faith community representatives, Samaritans specializing in emotional support. Rarely do these organizations assume the roles of primary emergency responders.

Voluntary sector meets the needs of individuals in crisis as they deliver support to statutory authorities. Their functions are only regarded as successful and effective if they have received appropriate training recognized by the professional organizations requesting their support 9 McMaster, R., & Baber, C. [7]. Volunteer teams supported from organizations with adequate training and skills can aid in meeting the emotional and practical individual needs of victims in their homes set up centers (NEMC, 2024). The support function of volunteers includes listening, befriending and emotional support. They also provide assistance on how to obtain information through communication, first aid and health care by offering mobility and medical aid equipment such as wheelchairs.

Other important roles include documentation, bedding, transport, care of children and pets, provision of clothing and refreshments. They also provide sign-posting, network and websites, support lines and call centers. For example, in 2024, volunteers created a center to help in Kariakoo building collapse incident victims at Dar es Salaam and also in 2022 Red Cross in collaboration with Government agencies created temporary shelters with necessary facilities to Hanang district landslide incident [5]. Some support groups can provide communications such as provision of telephone links and radio as well as translation and interpretation facilities. Transport from and to temporary accommodation/shelters, mortuaries, bus stations and hospitals.

4.4. The Implication of The Legal and Institutional Arrangements for Disaster Management and Emergency Response in Tanzania

The report published by the United Nations Office for Disaster Risk Reduction (UNDRR) in 2020 with the main focus on risk sensitive budget review for Tanzania, indicated that in the National budget of the financial year 2018/19 there were 226 projects and activities related to disaster management that were managed by 176 different departments under 28 ministries, offices or commissions at national level and 29 regions as indicated in the table 2 below (URT, 2018). This tendency tends to affect the implementation of the programs and yield the intended goals as there are competition on resources among the institutions.

Level	Institutions/Regional secretaries	Departments	Projects oractivities
National	28	48	93
Regional	29	128	133
Total			226

Table 2: Identified Projects/Activities Related to Disaster Management

In addition, as it has been noted in the previous section, there are several government institutions and departments that have been established and mandated to deal with emergencies and disasters in Tanzania that contradict each other in the practice. With 176 departments budgeting for the same issues might lead to misallocation of funds and hinder emergency response operations by the first responders. Each department has their own goals and strategies that are not in the same line as the other.

Further, by having several institutions with the similar roles or obligations, might lead to delay of emergency response operations due to insufficient resources to the immediate institutions especially first responders like rescue services and firefighting. This was born or realization that although some structures and systems already existed, a more robust and standardized approach is required to upgrade and integrate their activities and capacities and to focus on disaster risk reduction and preparedness measures, rather than on emergency response.

Also, there are radios and television programs aired in the national media including public and private media that are prepared and jointly conducted by Information Officers and a Officers from disaster departments, the target groups are ordinary people both urban and rural that are likely not aware of the message conveyed.

Moreover, the formulation of disaster management and emergency response legislation, strategies, policies, and plans in Tanzania need to utilize a multi-stakeholder approach to integrate inputs from various governmental and non-governmental entities. The Disaster Management Act (2022), the National Disaster Management Policy (2014), and the draft of Tanzania National Contingency Plan (2012) are key documents that outline stakeholders' roles and responsibilities, according to the data collected. The DMU Prime Minister's Office and DARMART are central in formulating these documents, ensuring they align with national priorities and international standards. The respondent from DMU noted, "Our role involves synthesizing input from various sectors to create comprehensive disaster management frameworks that can address both immediate and long-term needs." The collective efforts of stakeholders mark the formulation process, which includes extensive consultations and drafting sessions. For example, the Fire and Rescue Force, as a key operational entity, contributes valuable information about the practical needs and challenges faced during disasters, which informs the legislative and policy frameworks.

That Disaster thinking needs to be integrated into all development planning and become the responsibility of all institutions not as a subsector of its own. The indigenous initiatives and disaster

response mechanisms are needed to be strengthened by all modern initiatives for disaster management and emergency response systems.

4.5. Potential Challenges and Deficiencies in Institutional Frameworks and Collaborative Strategies for Disaster Management and Emergency Response in Tanzania

Organizational issues in emergencies as provided by Disaster Management Act, 2022 demands that organizations collaborate in major disasters and accidents. This requires a whole system or collaborative approach towards multi-agency and not individual actions of organizations. However, the challenge comes in when these organizations are required to integrate and function as a system [8].

Emergency management system if not configured well may lead to lapse in emergency responses. Similarly, the Tanzanian emergency system focuses much on the element of emergency response at the expense of emergency planning and management of the vulnerable population.

Currently, the emergency management system, Tanzania public and practitioners are in a relationship that is less ideal. The involvement of the public is minimal leading to low expectations and attitudes as the status quo is that of a disempowering culture.

A 'principal-agent problem' can result from relative independence of respondent structures and emergency response decentralization. This affects application of measures and allocation of emergency planning funds. Budget reduction diminishes the required national capability for example during a flood rescue, reductions in budgets of a number of agencies likely affects the coverage of climate hazards and collective ability to respond. Therefore, failure by local and national responders to address budgetary issues in a coordinated way risks resource shortages, confusion and inefficiency during a crisis [9].

During disasters, communication is can be compromised or lost implying that established roles of select may not keep the supply chain intact. Similarly, lack of commitment and unwillingness to operate and agree to a shared system or lack of discipline to utilize a system correctly leads chaos in communication and interpretation of messages. For example, the police in City of London in the 2005 London bombing cut off services of key responding agencies by restricting cell phone networks of some users such as London Ambulance Service [10].

Deficiencies in communications originate from gaps in resource constraints, selective availability of technologies and poor

research and development. For instance, in the Hanang Mudflow and floods of 2023, agencies in other stakeholders found it difficult to contribute as they were unaware of procedures and protocols applied by commanding agencies in leading agencies. Moreover, in the Kariakoo building collapse incidents of 2024, community leaders had limitations due to ineffectiveness of leading agencies and other stakeholders to communicate owing to inefficient radio communication and inadequate coordination at the beginning of the incident as the pressure to get information makes rumors to propagate unchecked and quickly undermines accuracy [11].

During emergencies, utility companies may be unable to source what they need from framework or contract by announcing an emergency tender. However, regulations and import duties may hinder their flexibility and capacity to meet purchasing procedures and emergency requisition, though imported firefighting and rescue equipment are duty free. These ordering processes and bid laws may be too constraining and cumbersome to allow responders to urgently get what they need [10].

Poor public relations between responders and the general public on what needs to be done, leads to misunderstanding of instructions and directions from key agencies. Understanding of messages may be incorrect even for people who get the information (Donahue, A & Tuohy, R 2006). This happens when the government does not give pre-incident public education on a short shrift. In the heat of an incident, this problem is exacerbated as agencies do not control the message carefully and fail to use a common message.

The collective risk assessment among Leading Agencies may lead to poor risk assessment as each responder have its own training, policies, and daily programs [12]. However, they can share their risk assessment report for clarity (Cabinet Office, 2012a), though miscommunication between responders and the general public on what needs to be done, may leads to misunderstanding of instructions and directions from key agencies. Understanding of messages may be incorrect even for people who get the information [15].

Moreover, there are challenges that highlight the opportunities and special requirements for responders to engage in emergency planning. For example, there are opportunities to build a health and safety procedures, manage high hazard facilities and build existing risk assessment procedures.

5. Recommendations on Improvements and Conclusion

5.1. Recommendations on Improvements

5.1.1. Multi-Agency Response Issues

Early involvement of Leading Agencies and other stakeholders is vital. Collaboration between multiple agencies will help reduce risk to population and prevent further death and destruction of property in case of fierce fires, industrial explosion, floods and acts of terror [13]. Agencies must be able to coordinate and integrate as a functional unit by accepting the roles of all the participants.

5.1.2. Suitable Social Structures

There is need to have a proper record of survivors, relatives, identification of victims and mortuary services. Having records of residents' ease logistics during evacuation and offer alternative shelter as a community. In a closely-knit community it is possible to trace displaced persons or affected members in distress.

5.1.3. Effective Planning

Jurisdictions and agencies should be committed to planning, and hard choices should not lead to compromises. Authority and resource ownership should be evident while lessons learned should be updated on regular basis to predict future events. Actual plans should be realistic while supervisors, politicians and senior managers should implement formal training on disaster management.

5.1.4. Communication and Good Public Relations

Public is always complacent to disaster preparedness. Meaningful community empowerment and engagement should be done through community-based disaster risk reduction and community resilience. Communication should be understood by the laymen even over the radio. Signage and other communication gadgets should also be understood by all the responders.

5.1.5. Evidence-Based Practice in Emergency Planning

Evidence-base in Tanzania should be founded on a system, organization and individual level. It should also be translated into action and integrated to organizations that respond to emergencies and disasters.

5.1.6. The Military:

Though the army participate in various emergencies and disaster, it is recommended that it is better to incorporate the army among the Leading Agencies as it has vital resources and skills that can be utilized in the emergencies. By legalizing their roles in the emergencies, it will be easy for other responders and the army itself to cooperate freely.

5.1.7. Voluntary Sector:

It is recommended for the voluntary sectors to be provided with resources and training for dealing with emergencies in the areas they can cover regardless of their distribution in Tanzania. This sector plays a major role in the emergencies especially the red cross. Therefore, it is ideal to support them as they act as auxiliary organizations in the emergencies.

5.1.8. Regional Integration Relations:

The world is facing the cross-boundary disasters and problems that require collective measures to act upon them. These problems include terrorism, environmental disasters, diseases, migration and political conflicts. It is recommended that, the Tanzania emergency planning to consider the regional integration strategies and plans on emergency handling.

5.1.9. Other Agencies:

Other agencies in primary response category include environment

and health protection agencies. Health and Safety Authorities (HAS) provides information on health aspects of the response to members of the public. HAS not only handles infectious diseases and hazards like radiations but also advises and supports HMS, emergency services and local authorities. NEMC monitors air quality from major incidences, provides warning on river water abstraction, and mitigates on pollution at a limited scale (HBC, 2014). They also formulate and adopt recovery options using evidence-based practice to aid in remediation against environmental contamination [14].

6. Conclusion

The aim of this study was to explore emergency planning during disasters and emergencies in Tanzania by appraising the roles of Leading Agencies and other stakeholders and the voluntary sector. The study found that Leading Agencies play the lead role in taking care of the situation as provided under Management Act legislations and policy. Other stakeholders provide support to Leading Agencies by offering transport, electricity, gas and monitoring of health conditions of the disaster environment. Essentially, the voluntary sector contributes significant assistance to emergencies by offering unconditional social and psychological support to affected persons or communities. Agency problems, communication and poor public relations are some of the challenges and deficiencies in emergency planning in Tanzania that need improvement. The study suggests improvement in multi-agency coordination, evidence-based practice in emergency planning and effective communication of responders and members of the public.

References

1. Mushi, N. (2018). *Fire safety management*.
2. FB Attorneys, (2024), humanitarian aid for flood victims <https://fbattorneys.co.tz/humanitarian-aid-for-flood-victims/#:~:text=Activities%20related%20to%20disaster%20management,humanitarian%20aid%20collected%20from%20donors>.
3. Simona, T., Taupo, T., & Antunes, P. (2023). A scoping review on agency collaboration in emergency management based on the 3C model. *Information Systems Frontiers*, 25(1), 291-302.
4. URT, (2024), Final Report on The Accident to ATR 42-500 Aircraft Registration 5h-PWF Which Occurred On 6 November 2022 in Lake Victoria Near Bukoba Airport. <https://asn.flightsafety.org/wikibase/318731>
5. IFRC, (2024), Tanzania, Africa - Floods and Landslides 2023 - Operation Update #1.
6. Woong, L. D. (2019). Collaboration and performance in disaster and emergency management: Focusing on South Korea. *International Journal of Disaster Risk Reduction*, 35, 101116.
7. McMaster, R., & Baber, C. (2012). Multi-agency operations: cooperation during flooding. *Applied ergonomics*, 43(1), 38-47.
8. Lee, A. C., Challen, K., Gardois, P., Mackway Jones, K., Carley, S., Phillips, W., ... & Goodacre, S. (2012). Emergency planning in health: scoping study of the international literature, local information resources and key stakeholders. Final report.
9. Abdeen, F. N., Fernando, T., Kulatunga, U., Hettige, S., & Ranasinghe, K. A. (2021). Challenges in multi-agency collaboration in disaster management: A Sri Lankan perspective. *International Journal of Disaster Risk Reduction*, 62, 102399.
10. Donahue, A., & Tuohy, R. (2006). Lessons we don't learn: A study of the lessons of disasters, why we repeat them, and how we can learn them. *Homeland Security Affairs*, 2(2).
11. Bearman, C., Hayes, P., & Thomason, M. (2023). Facilitating teamwork in emergency management: The team process checklist. *International journal of disaster risk reduction*, 97, 103979.
12. Celikler, J. M., & Kern, E. M. (2022). Factors influencing communication structures and processes in disaster management teams—Fields of action and design options. *International Journal of Disaster Risk Reduction*, 78, 103153.
13. Curnin, S. (2018). Collaboration in disasters: A cultural challenge for the utilities sector. *Utilities Policy*, 54, 78-85.
14. NEMC, (2014), *Volunteers contribution to flood resilience*, Research report. http://evidence.environment-agency.gov.uk/FCERM/Libraries/FCERM_Project_Documents/Volunteers_extended_summary.sflb.ashx.
15. Cabinet Office, (2012)a, *Revision to Emergency preparedness*, p.51.
16. Bertolli, C., Tarchi, D., Fantacci, R., Vanneschi, M., & Tassi, A. (2010, June). An integrated communication-computing solution in emergency management. *In Proceedings of the 6th international wireless communications and Mobile computing conference* (pp. 651-655).
17. Busa, M. G., Musacchio, M. T., Finan, S., & Fennell, C. (2015, May). Trust-building through social media communications in disaster management. *In Proceedings of the 24th international conference on world wide web* (pp. 1179-1184).
18. Cabinet Office, (2013)a, *Emergency response and recovery*, UK government. <https://www.gov.uk/guidance/emergency-response-and-recovery>.
19. Cabinet Office, (2013)b, *Preparation and planning for emergencies: responsibilities of responder agencies and others*. UK Government. <https://www.gov.uk/guidance/preparation-andplanning-for-emergencies-responsibilities-of-responder-agencies-and-others>.
20. Curnin, S., Owen, C., Paton, D., & Brooks, B. (2015). A theoretical framework for negotiating the path of emergency management multi-agency coordination. *Applied ergonomics*, 47, 300-307.
21. Department for Environment Food & Rural Affairs (DEFRA) (2014), *The National Flood Emergency Framework for England*, Environment Agency. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/388997/pb_14238-nfef-201412.pdf.
22. HM Government, (2014), *A detailed guide to roles and responsibilities in humanitarian assistance*,UK. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61223/ha_rolesandresponsibilities.pdf.
23. (MDRTZ035), IFRC. <https://reliefweb.int/report/united-republic-tanzania/tanzania-africa-floods-and-landslides-2023->

operation-update-1-mdrtz035

24. Kapucu, N. (2009). Emergency and crisis management in the United Kingdom: disasters experienced, lessons learned, and recommendations for the future. *Obtainable from: [http://www.training.fema.gov/emiweb/edu/Comparative% 20EM% 20Book](http://www.training.fema.gov/emiweb/edu/Comparative%20EM%20Book).*

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