



The Revolutionary Government of Zanzibar



**ZANZIBAR DISASTER
MANAGEMENT
POLICY**

THE SECOND VICE PRESIDENT'S OFFICE

AUGUST, 2011

FOREWARD



Zanzibar as other islands in the world has been experiencing a quite significant number of disastrous events of both natural and human-induced origin and is continually prone to a variety of such or other hazardous events. Zanzibar Disaster Risks and Capacity Needs Assessment of 2008 shows that these disasters are related but not limited to fire outbreaks, floods, marine accidents, epidemics, drought, environmental degradation, and strong winds. When occur, disasters cause great losses to lives, property and environment and thus may push several people and a country into social and economic grief. The economic impact of disasters usually consists of direct damage e.g. infrastructure, crops, housing, and indirect damage e.g. loss of revenues, unemployment and market destabilization. It is therefore increasingly becoming a major developmental issue of urgent concern for the government, development partners and local communities.

In view of this situation, the Revolutionary Government of Zanzibar has formulated this Disaster Management Policy which is aimed at setting administrative and operational mechanisms towards building resilient communities by enhancing the use of and access to knowledge and resources in disaster prevention, mitigation, preparedness, response and recovery at all levels in the country. The policy calls for deliberate efforts to ensure that development does not increase the country's susceptibility to disasters and thus it clearly paves the way for ensuring that we attain Vision 2020, MKUZA II and millennium development goals in sustainable manner. This illustrates that disaster management is an integral part of the process.

The development of this policy is influenced by a comprehensive disaster management approach that seeks to achieve the right balance of prevention, mitigation, preparedness, and response. Disaster management requires the cooperation between multilateral development agencies, national and local governments, non-governmental organizations, businesses, natural and social scientists, technical specialists and the vulnerable communities. From this point of view, this policy is based on the realization of the multi-dimensional nature of disaster which also requires complex and a very coordinated management by drawing a wide range of skills, knowledge and experiences from a range of stakeholders at all levels.

The Government views such an approach as an extremely important issue because any national policy which is at variance with other existing national and/or international frameworks can have serious implications for the realization of the set disaster management objectives and strategies.

A Vision for disaster management in Zanzibar is clearly outlined in the policy which points out the focus as to minimize the negative consequences and impacts of disasters on the lives and property of the Zanzibar people by taking effective preparedness, mitigation, response and recovery measures thus ensuring the maximum level of safety. The Policy establishes the strategic intents that guide and inform disaster management practitioners the need to institutionalize disaster management approaches in their development and planning programmes and strategies.

With the publication of this Policy, we hope that all disaster management stakeholders will draw on its insights in order to contribute effectively to disaster management in Zanzibar.

Hon. Dr. Ali Mohamed Shein

**The President Of Zanzibar And
The Chairman Of The Revolutionary
Council**



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Hon. Ambassador Seif Ali Iddi

The Second Vice President

The Revolutionary Government Of Zanzibar



ABBREVIATIONS

DDMC	District Disaster Management Committee
DRR	Disaster Risk Reduction
EFA	Education For All
GAM	Global Acute Malnutrition
GDP	Gross Domestic Product
GMO	Genetic Modified Organisms
HIV and AIDS	Human Immune Deficiency Virus and Acquired Immune Deficiency Syndrome
JKUZ	Jeshi la Kujenga Uchumi Zanzibar
KMKM	Kikosi Maalum cha Kuzuia Magendo
MKUZA	Mkakati wa Kukuza Uchumi na Kupunguza Umasikini Zanzibar
RTA	Road Traffic Accidents
SAM	Severe Acute Malnutrition
SDMC	Shehia Disaster Management Committee
SMOLE	Sustainable Management Organisation of Land Environment
SVPO	Second Vice President's Office
TMA	Tanzania Meteorological Agency
TPDF	Tanzania People's Defence Force
UNDAC	United Nations Disaster Assessment and Coordination
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
URT	United Republic of Tanzania
WHO	World Health Organisation

ZIFA

Zanzibar Institute of Financial Administration

ZSGRP

Zanzibar Strategy for Growth and Reduction of Poverty

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1.0 INTRODUCTION

1.1 Background

1.1.1 Physical characteristics

Zanzibar is a country which united with Tanganyika in 1964 to form the United Republic of Tanzania. Geographically, Zanzibar has two major Islands of Unguja and Pemba and 54 other small islets surrounded by Indian Ocean. Zanzibar is located between 04°50' and 06°30' South latitude with 39° and 40° East longitude¹, Unguja and Pemba islands are separated some 50 kilometres from each other and approximate 40 kilometres and 60 kilometres respectively from the Tanzania mainland². Unguja island has an approximated area of 1600 square kilometres (85 kilometres north-south length and 9 kilometres to 37 kilometres east-west, depending where you are) and Pemba has an approximated area of 1014 square kilometres (65 kilometres north-south length and 13 kilometres to 18 kilometres wide).

1.1.2 Climate

The climate of Zanzibar is warm and humid tropical type with a strong maritime influence and can be divided into four main seasons. The warmest season is from December to early March, the long rain season (Masika) starts in March and lasts mid June, the coolest months are June, July, August and early September, and the short rainy season (Vuli) occurs during October to December but may continue up to early January. Pemba receives more annual rainfall (1,900 millimetres) than Unguja (1,600 millimetres).

The mean maximum temperatures are 32°C and mean minimum temperature may go down to below 20°C while the mean annual

¹ Zanzibar Map Catalog, 1984

² Land Use Plan inception report, 2011, SMOLE II 2010-2013

maximum and minimum temperatures are 29.3°C and 21.1°C, respectively. Zanzibar experiences north to north-eastern winds (Kaskazi) from December to February. From April to September, it experiences south to south-eastern winds (Kusi)'. When there is a tropical cyclone usually between November and April within the vicinity, strong winds and severe weather may be experienced.

1.1.3 Population

Based on the annual growth rate of 3.1% outlined by 2002 Population and Housing Census, the current population (2010) is estimated to be 1,273,512³, with 31% and 69% of the total population living in urban and rural areas, respectively. These figures denote a population density of more than 400 persons per square kilometre, making it the most densely populated country in East Africa. The population is largely comprised by youth as 60% of the total population is aged under 25 years and is bound to be adversely affected, particularly with the high poverty rates (49% of Zanzibari live below basic needs poverty level; and 13% below food poverty levels), unemployment, HIV/and AIDS scourge and an economy largely dependent on rain-fed agriculture. Such a population can be classified as highly vulnerable to disaster occurrences and any small predisposing factor may result in emergencies of high proportion, often culminating in national disasters.

1.1.4 Economy

Up to the mid 1980's, Zanzibar followed a centralized system of economy, in which the government was responsible for operation and provision of most of economic and social services. During the period of 1986-2000, agriculture, trade, tourism and services sectors were the major contributors to the GDP making up to 90% of its total value. The service and agricultural sectors, however,

³ URT (2006): *Tanzania National Projections, Vol. XII, National Bureau of Statistics, Ministry of Planning, Economy and Empowerment.*

are currently the most important sectors of the economy in terms of contribution to the GDP and employment. Currently, spices, seaweeds, and tourism have been earmarked as the primary foreign exchange earners. On the other side, the common food crops cultivated in Zanzibar are rice, banana, cassava and red beans.

1.2 The concept of disaster

Disaster is defined as the occasions of crisis or social stress, observable in time and space, in which societies or their components such as communities and regions suffer physical damages or losses and alterations in their daily functioning to a degree that exceeds their own capacity for self-recovery, thus requiring external intervention or cooperation. There are three key elements considered;

- Serious disruption of function of affected society
- Major human, property, social economic and environmental damage
- The inability to cope with, using own resources hence need for external assistance.

Disasters are seen, on one hand, as a product, fact, or consummated reality (that is, disasters once materialized, evident, visible, and measurable), and on the other, as a "process" in which the emphasis is mainly placed on the objective, historically constructed conditions that allow the eventual appearance of an occurrence that is known as "disaster" (catastrophe, emergency or accident). It means that in strengthening Disaster Management one has to tackle issues of how to deal with the products and the processes.

Disasters are categorized into natural, manmade and complex disasters. Natural disasters are the ones that occur due to natural hydrological or geological conditions. Examples include cyclones, tsunamis, floods, drought and famine. Man has continued to trigger

the natural hazards which in turn bite back because of the high levels of vulnerability. Manmade disasters are disasters that occur due to man's activities. Examples include crowd incidents, terrorisms, wars and conflicts, technological accidents, deforestation and transport accidents. When two types of disasters occur in the same place concurrently the result is a complex disaster. For example, conflict and drought which often comes with epidemics.

1.3 Rationale for formulating the Policy

Zanzibar like any other developing country has been found to be affected by a number of hazards that carry the danger of causing disasters. These hazards include: floods, droughts, epidemic diseases, fire, pest infestation, HIV/AIDS, malaria, and earthquakes. Others are collapsing of building especially in the stone town, storms, environmental degradation, air pollution, climate change, rise of sea level, civil unrest, transport mechanism accidents, drug abuse, raping and child labours.

Therefore the focus of this Policy is to have safe and sound livelihood with minimum disaster disruption to social and economic development issues. The aim is to develop as much as necessary capacity for coordination and collaboration for comprehensive disaster management programmes among principal players at all levels. This can be achieved by mainstreaming disaster management norms as an integral part of development programmes of all relevant sectors in the country. Since vulnerability reduction is comparable to poverty reduction, disaster preparedness, mitigation and prevention measures are basically a development process which cannot be carried out without a proper defined policy framework which is a critical factor for disaster observation, mitigation and prevention.

2.0 DISASTER RISK PROFILE - A SITUATION ANALYSIS

Zanzibar's disaster profile is dominated by droughts and agricultural pests, fire, floods, marine and terrestrial accidents, diseases and epidemic outbreaks that disrupt people's livelihoods, destroy some infrastructure, divert planned use of resources, interrupt socio-economic activities and retard development. Likewise, the peripheral effects of December 2004's Asian tsunami on Tanzanian coast are the reminders of disaster potentials in Zanzibar

2.1 Experience on disaster indices and their impacts

Zanzibar has been struggling from one emergency to another ranging from severe droughts, floods, food insecurity, fire incidences, marine and terrestrial accidents, building and structural collapse, etc. These disaster incidences have not been without costs, and their impacts have become an impediment to sustainable development of the isles. Few cited cases are as follows:

2.1.1 Rainfall patterns

Zanzibar experienced very high rainfall in the year 2005 in what is considered to have been the worst downpour in the last 40 years. This unprecedented rainfall, which lasted 36 hours and measured 149+ millimetres, took place between 15 and 17 April 2005. Following these rains, 10,000 households lost their homes and over a 10,000 others lost their livelihood and coping strategies and led to depend entirely on relief services.

2.1.2 Food shortage

In the past four decades, Zanzibar experienced extreme food shortage which resulted into hardship for many people. The same situation was experienced in 2008 resulted from the rise of global food and fuel prices and inadequate and erratic rainfall. According

to WHO (2009)⁴, the levels of acute malnutrition following the food shortage and food insecurity across Zanzibar Islands significantly elevated with 22.5% (300,000 people) requiring food mainly children under the age of five as well as pregnant and lactating women who were malnourished. The population at risk for food insecurity was about 700,000.

2.1.3 Power shortage

During the period May-June 2008, Zanzibar suffered a major failure of its electricity supply system, which left the Unguja Island without electricity for nearly four weeks. Indirectly, the problem affected the entire population of Unguja Island, estimated at 731,322 persons who lost their livelihood and coping strategies, costing the national economy billions of shillings. The Island experienced a second major blackout from 10 December 2009 to 08 March 2010, due to a problem with the submarine cable. This led to a serious and ongoing shock to the island's fragile economy, thereby disrupting the social services and economic performance. Among the main felt consequences of power crisis were reduced basic essential social services (health, safe/clean water supply, and sanitation), resurgence of water borne diseases, increased prices of basic commodities, impaired productivity including crop failure, and lowered income.

2.1.4 Marine accidents

In the recent years, reported cases of marine accidents are increasing. In March 2009, fire destroyed two passenger ships, MV Aziza I and MV Aziza II, when they were undergoing maintenance. In May 2009 one passenger ship, plying the Dar es Salaam/Zanzibar route, caused panic among its passengers when its backdoor fell off while in the Indian Ocean. A week later a cargo ship (MV Fat-hi) capsized at the Zanzibar's main port of Malindi where six people

⁴ World Health Organization, Humanitarian Appeal 2009, Country Profile.

were confirmed dead and 27 people were rescued. It took more than a week to rescue and lift the vessel. The other marine accident was observed in 14th April 2009 where MV. Amana Pemba caught fire at Tanga sea port a short time after disembarking from the port to Pemba with passengers and cargo. Seven people were confirmed dead and 22 were safely rescued. In early 2010 MV Serengeti also caught fire while preparing for cargo loading at the port side. Apart from Malindi sea port which has been undertaking a new construction in 2008, others are in poor state in terms of infrastructure (quays, container stacking yard, etc.) as well as very limited operational area and storage facilities.

2.1.5 Unintentional injuries

Unintentional injuries contributed mainly by massive road traffic accidents (RTA) are on the increase, contributing to burden of diseases and disabilities. Lack of timely proper First Aid measures is one of the contributing factors to increased mortality and disability from unintentional injuries.

2.1.6 Fire outbreaks and falling into open well

Frequent fire outbreaks pose potential risks not only to lives of people and animals, but also loss of property, livelihood and environmental degradation. The statistics indicate that during the period of 2006-2009 thirty persons lost their lives due to fire incidences; and ten people were rescued from such hazardous events⁵. Statistics specify that a total of 503 cases of fire incidences occurred, covering buildings/houses (264 cases), forest fires (109 cases), motor vehicles (49 cases), dumping sites (25 cases), high voltage transformers (46 cases), and incidences incurred from training/exercises (10 cases).

⁵ Department of Fire and Rescue, 2010 Statistics on Fire Outbreaks and Rescue.

Main factors contributing to frequent occurrences of fire outbreak include poor enforcement of the standards and regulations that govern fire risk reduction, poor farming practices, inadequate fire fighting facilities and emergency fire exits, compactness of buildings, narrow streets (especially in stone town) that obstruct accessibility for fire fighting vehicles to operate efficiently during the accidents. Apart from fire hazards, other listed incidences include falling into open water wells (944 cases) of which 935 cases (human beings) and 9 cases (domestic animals). Overall, these incidences have resulted in an increase in the number of people affected and property damaged worth Tanzanian Shillings 2,431,023,000.

2.1.7 Cyclones, strong winds and subsidence

Zanzibar as tropical islands is prone to and has experienced a number of wind related hazards. Although it has rarely been experiencing cyclones as was only noted in 1872, a numerous strong winds accidents have been documented. The most recently remarkable strong winds happened at Urban District especially Amani and Kwamtipura areas in December 2009, Mkoni District Pemba in February 2011, and Urban, West and Central Districts Unguja in February 2011. The results of those events are property losses and destruction of infrastructures.

Subsidence is a global problem mostly caused by human activities mainly from the removal of subsurface water. In Zanzibar such accident happened at Jang'ombe in 1999 which caused a sinking of one residential house.

2.1.8 Destruction of natural environment

The following paragraphs examine and provide an analysis of thematic areas and cross-cutting issues, which have a profound effect on the economies and livelihoods of the Zanzibaris. The

examination covers an assessment of the present state of the environment and risk analysis of vulnerability to natural and environmental disasters in Zanzibar as follows:

i. Declining of coral reefs

Zanzibar is blessed with excellent fringing coral reefs along its coasts. The rock-like structure of coral reefs serves as a natural water break. Therefore, they have the capacity to create rigid, wave-resisting structures that modify their physical environment, thus creating a wide variety of associated depositional movements. However, there is an alarming decline of these coral reefs mainly caused by unauthorised fishing gears, discharge of liquid waste especially in Stone Town, and destruction⁶. Although, no great damage to infrastructure has been reported, the shores are increasingly eaten by the sea. . In a long run this will lead to the gradual inundation of offshore islands and increased damage to the coral eco-systems, which will reduce their capacity to protect the coast. Director

ii. Degradation of coral rag forests

About 40% of the land for Zanzibar is covered by coral rag forests. These forests are very important source of fuel-wood and construction poles for both rural and urban populations and land for agricultural production. Due to increasing population growth there is marked continuous deterioration in size and quality of this forest resource. Study⁷ estimates that coral rag forests are disappearing at the rate of 500-900 hectares per annum. If left unchecked, deforestation of coral rag forests will lead to desertification.

⁶ Zanzibar Environmental Study Series -----

⁷ Silima et al, 1993 and Ali et al, 1997

iii. Depletion of mangrove forests

Zanzibar is endowed with 20,000 hectares of mangroves that have great impact in meeting the needs of the population. Mangroves have high productivity levels as they receive nutrients from both sea and land. Mangrove forests are home to a rich assortment of wildlife, such as birds and many aquatic species, but they also provide another crucial and often

overlooked service to their ecosystems: they are natural buffers that shelter coastal communities and wildlife from the brunt of storms and waves, such as tsunamis. Also, mangroves perform several other ecological and hydrological functions including water supply, erosion protection, and habitats for fish and reducing shoreline erosion. Despite their importance in conservation of biological diversity, mangrove forests are under great utilization pressure to the extent of threatening their existence.

iv. Unplanned settlement

Despite having a long history of physical planning, Zanzibar has been experiencing increasing problems associated with the informal settlements. According to a recent study, over 70 per cent of urban residents live in informal settlements⁸. The uncontrolled expansion of human settlements has led to conversion of the best agricultural land into settlements.

A number of water sources and catchment including, but not limited to, Mwanyanya, Mto Pepo and Kinuni have now been surrounded by human settlement. Likewise the ongoing shrinkage of Masingini forest on the outskirts of Zanzibar Town due to the expansion of settlements has reduced the amount of ground water and resulted in environmental degradation. Haphazard construction of houses has blocked many natural water ways and

⁸ Land Registration in the Informal Settlement o Zanzibar SMOLE Study Series, Zanzibar,2005

has led to frequent floods during the rainy seasons particularly in the months of March, April and May of every year. Flooding which results in the overflow of pit latrines and septic tanks is also a major cause for pollution of water sources and marine environments.

There have been frequent outbreaks of water born diseases like cholera and dysentery, particularly during high rainfall seasons, due to contamination of the drinking water. The most severe cholera outbreak in Zanzibar occurred in 1979 whereby 40% of cholera positive patients died, while in 1983 13.6% of the positive cholera patients were reported dead.

v. Degradation of coastal zones

The coastal belt and its resources are Zanzibar's most valuable assets. If used correctly, they can help sustain the present and future generations. The rapid transformation of Zanzibar's coast as a result of tourism

development remains one of the most critical issues concerning the coastal zone. Widespread development seen on Unguja's East Coast, in areas such as Kiwengwa, are changing the face of Zanzibar. Pemba Island is largely in good shape, but is in a critical phase to determine how it will limit tourism development to few specific areas, as outlined in Zanzibar's Tourism Zoning Plan.

vi. Waste management

Experience shows that Zanzibar Municipality is affected by a number of waste related hazards. It was estimated that about 263 tonnes/day of solid waste is generated and only 45% of the waste is collected and transported to the municipal landfill in

Jumbi⁹. The remaining 55% is either eaten by animals, burnt, dumped illegally, blown away by the wind, swept away by the rain into storm water drains or stay as accumulated heaps in parts of town. The other town and district councils lack proper management system of the waste generated in their localities.

The above situation usually increases the risk of water-borne diseases due to washing out of contaminants to the groundwater and wells used by residents. Furthermore lack of top cover and improper dumping system contributes to bad odour and increases the risk of spreading of air borne diseases to the communities. The air borne contaminants could further contribute to respiratory diseases, with children at particular risk.

vii. Improper Environmental management

Zanzibar is characterized by very few, small scale industries, of which so far no immediate direct impacts on human health are observed. However, an environmental assessment report by the United Nations Disaster Assessment and Coordination (UNDAC)¹⁰ identified several issues that may pose high risks to humans in the event of a sudden onset natural disaster, as well as issues that are likely to pose longer-term impacts on human health of for example, in the case of oil storage facilities, they are ranked to be of very low environmental standard.

The present delivery process of oil poses a risk of polluting oil directly into the bay, with a negative effect on the marine environment. This, in turn, could likely affect the food chain and ultimately human health over the longer term. The walls surrounding the storage tanks will only give limited protection

⁹ Zanzibar Sanitation and drainage Programme, Phase II. Feasibility Study on Solid Waste, May 2005.

¹⁰ UNDAC Mission report on Zanzibar Power Crisis. 11th-19th June 2008

with respect to spreading of oil in case of a major leak from one or several tanks mainly due to the open drainage system around each tank draining directly into the bay and secondly due lack of bottom lining in the tank farm to prevent oil to enter into the ground and eventually into the bay via the groundwater having the same negative effect to the environment.

2.2 Potential hazards

Despite the fact that there are numbers of hazards that have never happened in our history, there is a possibility of Zanzibar to experience many of these hazards. The potential ones includes:-

- a). Influenza Pandemic: Zanzibar being on the coastal pathway of migratory birds from the northern hemisphere, is at high risk of catching Avian Influenza. Also constant movement of people to-and-fro the Islands, including local businessman, tourists and traders importing poultry products increase the vulnerability of Zanzibar to Pandemic Influenza.
- b). Tsunami: Experience shows that the tsunami waves of 26 December 2004 killed ten people, unknown number of people were missing and an oil tanker ran aground in Dar es Salaam harbour, damaging an oil pipeline. The waves also caused abrupt rise and fall of sea level in some parts of Zanzibar. This experience shows that Zanzibar is prone to tsunami.
- c). Oil spill: Zanzibar is prone to be affected by oil spill due to the outdated infrastructure and poor operational arrangement of both Zanzibar depots and sea ports. Due to geographical location, Zanzibar serves as a major route for North – South marine tankers, thus increases its vulnerability to the oil spill problems. Furthermore, the possibility of Zanzibar to extract petroleum products may lead to oil spill threat.

d). Hazardous materials such as radioactive and chemicals, introduction of Genetic Modified Organisms (GMO) and influx of used products from abroad especially electronic materials may cause disaster in the future since there is no proper screening systems as well as management of these electronic wastes.

2.4 Concluding remarks from situational analysis

On the basis of the above analysis, and in responding to the four main disaster risk reduction elements (prevention or mitigation, preparedness, response and recovery), an in-depth analysis that single-out the gaps between needs and the on-going/ planned activities is given here below:

- a). Experience has shown that in Zanzibar, sector development plans do not exhaustively disclose the elements of prevention and mitigation to disasters. The linkages among sectors are not well incorporated. In some cases, where disaster preventive regulations exist they are not effectively enforced giving chance for disasters to take place;
- b). Disaster preparedness involves development of proper administrative, legislative and technical measures to minimize the undesirable effects of those affected by disasters. Whereas this exercise requires regular systems plans review, modification, update and testing, in reality this set up is not well established, and equipment/tools are not systematically tested to determine their effectiveness and efficiency;
- c). Activities under disaster response include warning system, rapid damage and needs assessment, resource mobilisation, search and rescue, evacuation, relief distribution and construction of temporary shelters. However, auxiliary national structures and other obligatory needs are not well established and/or

inadequate for effective response. The legislation is short of motivation in its implementation and other stakeholders are not effectively involved in disaster management activities.

- d). Disaster recovery aspect aims at getting the affected population back to normal lifeline after a disaster event. This includes restoration of water system, shelter, electricity, communication, medical services and other infrastructures. Under normal circumstances, reconstruction phase involves long-term full restoration of all damaged/affected services and thus requires huge investment. In practice, most of developing countries including Zanzibar, the Governments are not capable to fully rehabilitate and renovate such infrastructure due to budgetary constraints. As for post-disaster review, the Government normally responds very fast in establishing teams of enquiry for fact-finding, but in most cases articulated recommendations are not adequately addressed by respective authorities.
- e). Effective disaster risk reduction depends on the level of development of warning systems. The harshness of the disaster consequences depends on the interaction between the warnings issued and the degree of the public response to warning. Warning systems need to be developed, known and tested continuously for the purpose of making them effective. The efficiency of Tanzania Meteorological Agency, Zanzibar Zone so far is not efficient as it lacks equipment and funds. Similarly traditional prediction mechanisms have not been well utilised to provide reliable information. Generally there is inadequate warning system in Zanzibar.
- f). Experience shows that in dealing with relief services there are no clear arrangements and guidelines for providing relief to disaster victims. Critical issues such as required relief service, when to provide, to whom, and the extent are often not resolved accordingly.

g). During disaster, it is mainly women, children, and people with disabilities, old people and anxious persons who bare the burden of the tragedy. Under a disaster condition these groups are more at risk and disadvantaged due to their family responsibilities and confinement from relaxed movement. Globally, in case of dislocation women and children are frequently subjected to human rights abuses. Practice has shown that there is no analysis to this critical aspect when managing disasters.



3.0 LINKAGES OF DISASTER MANAGEMENT TO NATIONAL DEVELOPMENT POLICIES AND SECTORAL POLICIES

3.1 Existing Policies

Zanzibar Development Vision 2020 and Zanzibar Strategy for Growth and Reduction of Poverty (ZSGRP) frameworks present guidance for implementation of International commitments and conventions as well as sectoral policies, plans and strategies for the sustainable development. Zanzibar Disaster Management Policy is formulated with the guidance from these frameworks. This chapter therefore describes the linkages with the overarching policies and frameworks of Vision 2020, ZSGRP and other sectoral policies.

3.1.1 Vision 2020 and ZSGRP

Zanzibar's overall Development Vision 2020 articulates a long term focus on achieving a high living standard and social well being of all Zanzibaris. It also focuses on improving the public safety and security, which can be attained through strengthening the national capacity to prevent, prepare and fight the tragic events. On the other hand, The Zanzibar Strategy for Growth and Reduction of Poverty (ZSGRP) is a national development framework designed to implement Vision 2020 and is in line with Millennium Development Goals and other International commitments and targets which are aimed at improving all kinds of socio-economic aspects. Mainly, it focuses on reduction of both income and non-income poverty and ensuring the attainment of sustainable growth.

It is recognized that disasters can easily erode economic and poverty reduction achievements¹¹. Both natural and man-made disasters lead to losses of life and property as well as environmental degradation. Improved public safety also stipulates improved

¹¹ Zanzibar Strategy for Growth and Reduction of Poverty (2010), Revolutionary Government of Zanzibar

disaster management. ZSGRP identifies major problems and challenges besetting the management of disasters and early warning system and also the activities that different actors will do in order to address such problems and challenges. These problems include; food insecurity and droughts, environmental and air pollution, civil conflicts, floods etc.

3.1.2 The Zanzibar Food Security and Nutrition Policy (2008)

The Zanzibar Food Security and Nutrition policy was formulated so as to promote sustainable and permanent availability, equitable accessibility and utilization of safe and nutritious food for all through integrated and well-coordinated multi-sectoral measures at all levels. The policy creates a conducive environment that enables all Zanzibari to have equitable access at all times to safe, nutritious and culturally accepted food in sufficient quantities for an active and health life. The policy further is aimed at providing special protection of vulnerable population groups from the emergency situation on their food security and nutrition situation. This policy is therefore, directly linked to Disaster Risk Reduction issues as it impacted an emergency situation particularly on food availability, accessibility and utilization at all times in the country.

3.1.3 Zanzibar Health Policy (2002)

The Zanzibar health policy has identified some specific measures to reduce emergency issues that seemed to result into disasters. These includes: prevention, control and where possible, the elimination of communicable diseases; and ensure that disadvantaged and other vulnerable groups are protected and their special needs are catered for. However, the policy didn't clearly mention how the sector will intervene/respond to emergencies resulted from disasters like provision of services in camps.

3.1.4 National Environmental Policy for Zanzibar (1992)

Pollution in the environment has been mentioned to be a major cause of natural disasters in the world. A combination of poverty, rapid economic liberalization and population growth has been putting tremendous pressure on environment and natural resources. As a tropical island ecosystem, Zanzibar is particularly vulnerable to environmental degradation. The National Environmental Policy of Zanzibar provides the framework for environmental management, management of water resources, coastal zone management, and management of deeper soils, all of which can reduce the probability of being attacked with the disasters or reduce the disaster impacts.

3.1.5 National Water Policy (2004)

Proper implementation of the water policy will result into decreasing rate of diseases which are water related and afflict Zanzibar such as diarrhoea, malaria, cholera and schistosomiasis and will also improve water supply and sanitation. Safe water supplies and environment sanitation are vital for protecting the environment, improving health and alleviating poverty. It is however essential to develop a separate sanitation policy in Zanzibar that will address effective management of both solid and liquid waste so as to attain sustainable development.

The overall objective of the water policy is to provide guidance to enable Zanzibar to achieve its aim of providing access to clean and safe water for all people and other water users to fulfil the needs of expanding social and economic activities while considering the nature conservation. It also aims at preventing and control floods and to ensure that lands affected by floods are cleaned and reused. This policy is therefore, directly linked to disaster risk reduction issues as it considers hazards like water related diseases, floods and water pollutions.

3.1.6 Education Policy (2006)

Education For All (EFA) as articulated in the policy stresses that, learning environment should be healthy, safe and protective. A healthy learning environment should include safe, environmentally friendly and easily accessible buildings, health and nutrition services, adequate water and sanitation, facilities to deal with emergencies and disasters, facilities to cater for psychological and emotional health of teachers and learners. The policy mentioned some progressive efforts towards disaster reduction related activities, through implementing various strategies such as the establishment of multi-sectoral comprehensive approach that shall be adopted in promoting healthy and safe school environment.

3.1.7 Trade Policy (2006)

Trade is part of the countries sources of foreign currencies and thus being part of Gross Domestic Products contributors. Trade policy is focused to the welfare of traders, customers and the public in general. Thus, so as to meet the demands of all three entities the need to counter check the standards and quality control is emphasized. The policy articulates the need for Zanzibar as other countries to have a right to impose measures necessary for the protection of human, animal or plant life and health. Thus the policy listed policy strategies that ensures the trade activities are carried out in the manner that all three parties meet their demands accordingly without damaging the welfare of the others.

3.1.8 Women Development Policy (2001)

Disasters result from the combined factors of natural hazards and peoples vulnerabilities. These vulnerabilities take the form of physical exposure, socio economic vulnerability, and limited capacity to reduce vulnerability and disaster risk. The capacities to reduce vulnerabilities and risks arise out of a complex mix of factors, which include poverty, social class, age group, ethnicity

and gender relations. While women vulnerability to disasters is often highlighted, their role in fostering a culture of resilience and their active contribution to building disaster resilience has often been overlooked and has not been adequately recognized.

3.1.9 Child Protection and Development Policy (2001)

Children are also considered as part of the most vulnerable to all kinds of disasters. They are the ones who are affected in conflicts, diseases, deaths, child labour, disability, ignorance, neglecting, raping, drug abuse, food insecurity and the likes. The Child Protection and Development policy has articulated various protective and development strategies that will cater for such hazardous natures.

3.1.10 Zanzibar Population Policy (2008)

According to Zanzibar Population Policy (2008), Zanzibar population continued to increase to about one million in 2002 from 640,000 in 1988 with the rapid population growth rate of 3.1 percent per annum. The high population growth compared to size of the Island possesses a serious problem to Zanzibar at large. Zanzibar Population density increased to 390 people per square kilometre compared to 260 recorded during the 1988. The population density threatens food supply in areas where cultivated land is used more on human settlement thus exerting pressure on other resources such as inadequate water supply. It also leads to unplanned settlement. Therefore Zanzibar Population Policy has reflected some important features which can lead into increased level of vulnerability if not dealt with properly. that if could not handled properly they might cause hazards.

3.1.11 Transport Policy (2008)

National Transport Policy (2008) addressed key factors that could deter the proper functioning for air, marine and land transports

in the Islands. The policy set aside the inadequacy of some key facilities that could create hazardous elements which might lead into disasters. For instance, lack of some key facilities in Karume Airport in Pemba, such as runway lights, security fence, and navigation aids, emergency generators and required fire fighting services. The policy also addressed that both Malindi and Mkoani seaports are facing limited space for their operations in terms of insufficient facilities and equipment due to the increasing demand of cargo and passenger traffic. On the other hand, road signs are not properly utilised. Poor condition trunk road, stone town traffic congestion, street road with Zanzibar town is also causing additional problems.

3.1.12 Agriculture Sector Policy (2000)

Agricultural sector in Zanzibar includes livestock, fisheries and crop production. Currently, these subsectors are highly affected by various problems that affect production capacity and sustainability of the subsectors. The livestock subsector has been affected by tick born, bacterial, viral and parasitic diseases which might lead to lowering the production capacity. The fisheries subsector, on the other hand, has identified use of destructive fishing gears and methods, and conflicts among marine users as key factors in lowering productivity of the subsector. The low productivity of crop production subsector has been caused by pest and disease attack, unreliable rain fall, inadequacy of agricultural inputs and facilities, decline of soil fertility, use of simple tools and poor farming methods. Consequently, these problems result in tragedy events to occur which lead to severe economic losses and in turn forces people to live in vulnerable conditions.

3.1.13 HIV/AIDS Policy (2006)

AIDS transmission has been identified as one of the hazards which face many countries, including Zanzibar. Zanzibar HIV and AIDS

Policy outlined that large group of people in the Islands especially youth are at high risk of being affected by HIV/AIDS. The group has been identified as the main productive force especially in the agriculture, trade, and service sectors. Consequently, the country will experience decreasing production rate, and thus increasing poverty levels which lead to increased vulnerability to many hazards such as hunger and disease outbreak.

3.2 Non-existing Policies

Despite of having several documented sectoral policies in various disaster related fields, there are some basic disaster-related policies not yet established. Therefore Zanzibar Disaster Management Policy recommends the establishment of the following policy documents:-

3.2.1 Public Health Policy

Public health services are essential part of a country's development infrastructure. The focus of public health intervention is to improve health and quality of life through the prevention and treatment of disease and other physical and mental health conditions, through surveillance of cases and the promotion of the health behaviour.

Currently, the public health issues are an integral part of Zanzibar Health Policy. However the policy does not address specific strategic actions for public health in the Islands. Therefore, this policy is highly recommending having a separate Public Health Policy in Zanzibar so as to facilitate the placement of all necessary strategic actions for better public health services in the country.

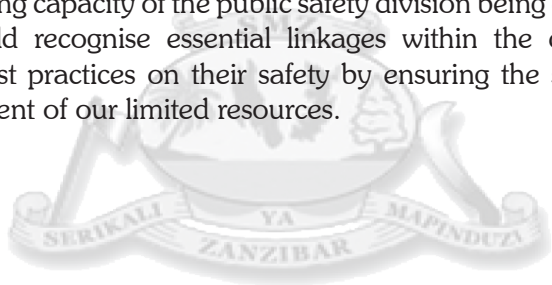
3.2.2 Sanitation Policy

Sanitation generally refers to the provision of facilities and services for the safe disposal and management of solid and liquid wastes and the maintenance of proper hygienic conditions.

Sanitation issues in Zanzibar for many years were under the responsibility of the local government authorities despite of having no clear written policy document for governing it. Sanitation is vital for protecting our fragile environment - both marine and terrestrial, improving health and alleviating poverty. It is however essential to develop a specific sanitation policy in Zanzibar that will address the effective management of both solid and liquid wastes so as to attain sustainable development.

3.2.3 Public Safety Policy

Public safety refers to the welfare and protection of the general public, and is usually expressed as a government responsibility. Zanzibar has not yet documented a public safety policy; however some duties are performed by different separate organs. The establishment of public safety policy shall be envisaged to define mandate and role of public safety division through the designation of power within the framework of government structure. The characteristics of public safety problems prevailing in Zanzibar needs strong capacity of the public safety division being established and should recognise essential linkages within the community on the best practices on their safety by ensuring the sustainable management of our limited resources.



4.0 STRATEGIC INTENT OF DISASTER MANAGEMENT POLICY

4.1 Preamble

Zanzibar as one of the small islands is prone and vulnerable to a variety of hazards and disasters that have grave consequences for the loss of people's life and property and destruction of infrastructure. So as to minimize vulnerabilities and disaster risks throughout a society, it requires comprehensive frameworks that will facilitate avoidance (prevention) or limit (mitigation and preparedness) the adverse impacts of hazards, and facilitate recovery programmes. Thus, the vision and mission of this policy are focused to maintain safety and security of people's life and their property.

4.2 Vision

The vision of Zanzibar Disaster Management Policy is to minimize the negative consequences and impacts of disasters on the lives and property of the Zanzibari people by taking effective preparedness, mitigation, response and recovery measures thus ensuring the maximum level of safety.

4.3 Mission

Introduce and operationalize effective and efficient disaster management mechanisms that will minimize risks of loss of life and properties by putting in place legal and institutional frameworks and by building the capacity of the community.

4.4 Policy objectives and scope

4.4.1 Objectives

- a. Formulate and implement sound and strong disaster management related legislations that will cover the disaster risk reduction issues at all levels;
- b. Upgrade public knowledge and awareness of disaster and

- ensure community resilience and true participation in disaster preparedness, mitigation and recovery;
- c. Enhance higher level of preparedness, mitigation, response and recovery capacity to all stakeholders for all types of disasters;
 - d. Strengthen the disaster risk reduction programmes by supportive efforts in the areas of research, experience sharing, information gathering, generation and propagation, risk reduction, recovery and monitoring and evaluation;
 - e. Set up and sustain an effective institutional arrangement for the harmonization and incorporation of disaster issues;
 - f. Mainstream disaster risk reduction issues into development plans and other sectoral policies and programmes at all levels.

4.4.2 Scope

- a. Sustain activities intended to reduce or eradicate long-term risks to people and property from danger and their effects;
- b. Develop the emergency management competence to effectively prepare for, mitigation against, respond to, and recover from any hazard by planning, training, research, rehearsals, investigations and institutional capacity building;
- c. Carry out emergency operations to save lives, safeguard livelihood and property by locating emergency equipment and supplies, evacuating victims, supplying food, water, medical care and bringing back essential public services.

4.5. Policy statements and strategies

4.5.1 Mainstreaming of disaster management into development plans

Experience in Zanzibar shows that, most of the sector development policies, plans and strategies do not exhaustively mainstream the

elements of disaster management. This results into failure of these sectors to commit themselves in disaster management activities effectively.

Policy Statement 1

Disaster management issues shall be mainstreamed in all stakeholder's policies, plans, guidelines and strategies.

Implementation Strategies

- a. Incorporate disaster risk assessment into planning and implementation of development programmes;
- b. Engage local authorities and other stakeholders to consider mainstreaming of disaster management issues into their programs/activities and sectoral plans
- c. Apply and promote scientific and engineering best practices in order to build a knowledge base for sustainable, cost-effective mitigation decisions that contribute to community resilience
- d. Develop and implement new and existing disaster management strategies and initiatives at all levels
- e. Develop and implement mechanisms that will enable disaster management knowledge and practices are mainstreamed in all levels of education.

4.5.2 Coordinating Disaster Management Stakeholders

Disaster management is based on multidisciplinary and pro active approach, thus it requires involvement of various stakeholders with strong regular coordination. Currently, the coordinating mechanism is not well organised to enable each stakeholder to perform its responsibilities accordingly.

Policy Statement 2

All institutions shall be primed, coordinated and equipped with resources so as to perform their responsibilities effectively.

Implementation Strategies

- a. Identify all disaster management stakeholders according to their responsibilities.
- b. Establish and put in place all necessary equipment, warning systems and interventions mechanisms for different types of disasters;
- c. Organize routine forums to all stakeholders to discuss achievements, failure challenges and future plans on disaster management;
- d. Conduct regular reviews, modifications, update and test of response systems to ensure their effectiveness and efficiency.
- e. Develop a specific mechanism that will be used for communication and information sharing among disaster management partners once disaster happen.
- f. Provide a 24 hour emergency response and rescue coordination centre and safety communications network for shipping.
- g. Establish and sustain data management system that will meet the needs of disaster management stakeholders towards performing their respective responsibilities.
- h. Strengthen coordination of incident response management.

4.5.3 Setting legal, administrative and institutional frameworks

Disaster preparedness and response that involve development of proper administrative, legislative and technical measures to minimize the undesirable effects of those affected by disasters are not well addressed. In some cases, where disaster related regulations exist they are not effectively enforced giving chance for disasters to take place. Experience shows that in dealing with relief services there are no clear arrangements and guidelines for providing relief to disaster victims. Critical issues such as required relief service, when to provide, to whom, and the extent are often not resolved accordingly.

Policy Statement 3

Legal, administrative and institutional arrangements shall be developed to provide for effective disaster management in the country.

Implementation Strategies

- a. Review and amend the Disaster Management Act No. 2 of 2003 to reflect the complete disaster management concept;
- b. Develop emergency preparedness and response plans at all levels;
- c. Establish disaster response mechanisms with appropriate coordination and incident command structure, trained personnel teams equipped with appropriate tools for all types of disasters;
- d. Review, harmonize and formulate Acts of different sectors so as to conform to the disaster management norms and practices;
- e. Establish national storage facilities for emergency relief items.
- f. Cooperate with regional and international community to ensure timely acquisition of humanitarian assistances.
- g. Establish clear operational guidelines for relief provision to direct both beneficiaries, development partners and other stakeholders in terms of period for relief interventions, eligibility, types and quality as a way of reducing duplication of efforts and unreasonable accusations;
- h. Ensure contingency plans are regularly updated and exercised to respond to a range of potential incidents.
- i. Establish guidelines and regulation for fire safety of buildings.
- j. Prepare and implement Public Health, Public Safety, Biosafety and Sanitation Policies, Programmes, Plans and regulations.

4.5.4 Financing Disaster management activities and programmes

There are various auxiliary national financing structures that have been established for easing implementation of activities in respective areas such as National Road Fund. However, in disaster management, these structures are not well established. Experience shows that the Government mainly responds to tragedies once happening and put emphasis in relief allocation rather than disaster management per se. Within the same vein, many institutions do not allocate funds for financing disaster related activities in their annual budget.. This tendency results into inadequate preparedness and mitigation measures for most of the hazards and hence put the country at high risk.

Policy Statement 4

Government shall establish emergency fund to ensure the accessibility of enough resources for disaster preparedness, mitigation, response and recovery.

Implementation Strategies

- a. Establish Disaster Management Fund in which stakeholders will be allowed to contribute to.
- b. Develop special arrangements, including budget allocation, to ensure instant replacement of damaged infrastructures;
- c. Establish social safety networks and counselling to assist affected population to get back to normal or more advanced condition;
- d. Ensure full participation of community and local authorities in fund raising activities to support affected population in disaster recovery programmes.
- e. Provide infrastructure and services to assist safe and responsible shipping.
- f. Establish National Food Reserve system

Policy Statement 5

All stakeholders dealing with disasters shall allocate adequate budget and other resources to prepare, mitigate and respond to disaster

Implementation Strategies

- a. Ensure all institutions allocate funds for emergencies in their annual budget.
- b. Ensure all stakeholders arrange fund raising initiatives for disaster preparedness, response and recovery programmes.
- c. All financial and material resource, set aside by stakeholders for the purpose of disaster management programme should be revealed to the Government and are used prudently.

4.5.5 Post - disaster activities

Under normal circumstances, reconstruction phase involves long-term full restoration of all damaged/affected services and thus requires huge investment. In practice, most of developing countries including Zanzibar, the Governments are not capable to fully rehabilitate and renovate such infrastructure due to budgetary constraints. As for post-disaster review, the Government normally responds very fast in establishing teams of enquiry for fact-finding, but in most cases articulated recommendations are not adequately addressed by respective authorities.

Policy Statement 6

The Government shall conduct post disaster review and debriefing and ensure that lessons learnt are utilised in future operations.

Implementation Strategies

- a. Conduct detailed and comprehensive vulnerability assessment and debriefing of disaster effects and operations;
- b. Establish disaster risk reduction data base and documentation

centre for literature review;

- c. Ensure proper utilization of information obtained from the post disasters review for future operations of disasters risk reduction.

4.5.6 Consideration of special groups in disaster management

During disaster, it is mainly women, children, people with disabilities, old people and anxious persons who tolerate the burden of the tragedy, thus under a disaster condition these groups are more at risk.

Policy Statement 7

All disaster management actors shall ensure that all necessary needs of the special groups are considered and streamlined into disaster management programmes.

Implementation Strategies

- a. Set mechanisms for protecting special groups from human right abuses during disaster events.
- b. Ensure needs for special groups are considered during all stages of disaster management

4.5.7 Disaster Risk Reduction Forums

National, regional and international forums on Disaster Risk Reduction have been conducted periodically. In those forums, the international communities agree to have common but differentiated responsibilities on best practices on managing disaster risks in their respective countries and organisations. On the other hand, Zanzibar is participating to these forums inconsistently and resulting to lack most opportunities of sharing experience with other countries in the region and internationally.

Policy Statement 8

Zanzibar shall participate in different conventions and forums and collaborate with national, regional and international bodies in disaster management.

Implementation Strategies

- a. Domestic and implement the regional and international conventions on disaster management;
- b. Ensure participation of Zanzibar in national, regional and international conferences and forums on disaster management.

4.5.8 Early Warnings

Effective disaster management depends on the level of development of warning systems. The harshness of the disaster consequences depends on the interaction between the warnings issued and the degree of the public response to warning. Warning systems need to be developed, known and tested continuously for the purpose of making them effective. Generally there is inadequate warning system in Zanzibar.

Policy Statement 9

Warning systems for all disasters shall be developed and strengthened so as to ensure effective detection of hazardous events, timely dissemination and utilization of information.

Implementation Strategies

- a. Invest adequately in strengthening the early warning units by equipping them appropriately to be able to provide accurate and timely warning information;
- b. Develop early warning systems that are people centred, timely and understandable to those at risk, which take into account the demographic, gender, culture and livelihood characteristics

- of target audiences;
- c. Develop, update periodically and widely disseminate risk maps and related information to decision makers, general public and community at risk in an appropriate format;
 - d. Carry out training of early warning staff, especially training of trainers at district and shehia levels;
 - e. Ensure that traditional early warning systems are identified, developed and improved to enable accurate forecast and interpretation of warning information for appropriate actions;
 - f. Establish effective Food Security Early Warning System
 - g. Establish signals for each hazard and make them known to users, similarly enhance community access and utilization of early warning information;
 - h. Utilize media agencies and mobile companies in early warning system;
 - i. Ensure disaster related information is timely and accurately delivered.
 - j. Increase the institutional capacity to monitor disasters and epidemics during early warning signs.
 - k. Establish fire inspections services regularly

4.5.9 Environmental and land degradation

Environmental assessment report by UNDAC identified several issues that may pose high risks to human in the event of a sudden onset natural disaster, as well as issues that are likely to pose longer term impacts on human health. Thus for a country to prevent environmental hazardous elements that are imposing disasters, it is important to mainstream environmental assessment and land use management techniques so as to make development plans and projects safe from causing hazards and disasters.

Policy Statement 10

Clear understanding and measures on environmental degradation and land management shall be enhanced to all stakeholders

Implementation Strategies

- a. Strengthen existing regulations and where necessary establish new ones for protecting the environment from disasters;
- b. Carryout environmental and land damage assessment for all undertaken programmes and after disaster strikes;
- c. Create public awareness on land use, building regulations, environmental protection and conservation;
- d. Enforce adherence to legislation and codes relating to land use and buildings.
- e. Locate special sites for dumping at every district
- f. Develop public awareness campaign regarding the value of mangroves with special emphasis on their linkage effects to societies.
- g. Establish and implement environmental guidelines pertaining the exploration and extraction of petroleum products.
- h. Establish consultative effort between government, non-governmental agencies, resource users, mangrove dwellers and the scientific community to develop mangrove management planning.

4.5.10 Public awareness

Public awareness is a crucial aspect in disaster management at all levels of the community. In Zanzibar, experience shows that when disaster happen many people are affected due to the little knowledge of disaster preparedness and response, As a result the community not only fail to take preparedness and response measures but also continue to contribute on hazardous elements that may cause disaster.

Policy statement 11

The government shall establish comprehensive and participatory mechanisms for public awareness on disaster preparedness and response at different levels of the community.

Implementation Strategies

- a. Develop public awareness programmes and campaigns in order to reduce underlined risk factors (hazards, vulnerability and elements at risk);
- b. Conduct awareness campaigns and education, public information, radio or television broadcasts on safe and friendly uses of wells.
- c. Provide public education and awareness on unintentional injuries such as fire, falls, and other home or workplace hazards
- d. Set mechanisms for the installation and demonstration of safety equipments in marine and aviation vessels, public gatherings and buildings.



5.0 INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

5.1 Preamble

Handling of negative effects of disasters requires multi-sectoral approach as significant amount of responses are beyond the ability of one organisation. To avoid replication, it is essential to have refined institutional structures with responsibilities for different actors at different levels. Therefore the institutional and implementation arrangement for disaster management in Zanzibar will fall under the following structure: Disaster Management Commission, Committees, agencies and other stakeholders. The due importance shall be to establish and strengthen those structures through human resource development, capacity building, capitalisation and coordination.

5.2 Institutional Structure

5.2.1 Disaster Management Commission

Disaster Management Commission will be the principal functional body for disaster management in Zanzibar and responsible for overall coordination for Disaster Management Policy, programmes, plans and strategies at all levels. It will also coordinate and collaborate with national, regional and international disaster risk reduction bodies. The Commission shall be headed by the Executive Director under the Ministry responsible for matters regarding the coordination of disaster management. Specific roles and responsibilities of the Commission will be to:

- Coordinate all disaster relief operations and preparedness measures;
- Organize advocacy and capacity building at all levels to enhance effective preparedness and response;

- Advocate for integration of disaster management issues into sectoral development plans, programmes, strategies and other administrative arrangements;
- Seek resources from inside and outside the country which will assist various activities in disaster management;
- Create public awareness and information dissemination programmes on disaster management to the communities and other stakeholders by using different mechanisms;
- Carryout risk mapping and vulnerability assessment in order to identify elements at risk and their vulnerability levels;
- Establish and implement appropriate disaster management plans, regulations, and guidelines;
- Facilitate trainings and researches on disaster management issues through collaboration with other stakeholders and provide necessary equipment and tools for the reduction of the disasters impact;

5.2.2 Disaster Management Committees

Disaster Management Committees shall be at national, district and shehia levels. These Committees will generally coordinate, guide, direct, approve and control disaster management activities at their respective levels and become the front-line structure of disaster management.

A. National Disaster Management Committee

The National Disaster Management Committee shall be composed of all the Principal Secretaries under the Revolutionary Government of Zanzibar and be headed by the Chief Secretary and the Secretary shall be the Principal Secretary of the Ministry responsible for disaster management. Other members will be appointed in accordance to the law established based on this policy. The overall responsibility of this Committee is to oversee and coordinate the management activities designed to secure the effective mitigation of disasters, the preparedness and operation of affairs during disasters. Specific

roles include the followings:

- Advice the Revolutionary Council through the Minister Responsible for disaster management on all matters regarding the disasters;
- Ensure that Government is capable of forecasting disasters and disaster prevention and mitigation, preparedness, response and recovery as well as post disaster review;
- Assist mobilising resources within and outside Zanzibar for effective disaster management.

B. Local Disaster Management Committees

i) District Disaster management Committee

The District Disaster Management Committee will be headed by the District Commissioner, the District Administrative Officer will be a secretary and the members will be appointed in accordance to the law established based on this policy. The overall responsibility of this committee is to administer and supervise disaster management programmes and their implementations at district level and recommend to the Commission for effective action. Specific roles of the committee include, but not limited to, the followings:

- Mainstream disaster management issues in the district plans;
- Monitor the hazards, risks and disaster threats and the conditions of communities at risks within the district;
- Carryout vulnerability assessment on disaster prone areas in the district and suggest appropriate measures to reduce their vulnerability;
- Organize and coordinate all interventions from other agencies and mobilize needed financial and material resources for disaster management;
- Support and supervise the execution of disaster management programmes agreed by the Commission for the district;

- Ensure that harmonious disaster management is fully reflected in district and national priorities and guidelines;
- Conduct training needs assessment and conduct education, training and public awareness programmes.
- Establish a fund for disaster management at the district;
- Establish the response team and civil protection system for the disaster within the district.
 - Ensure the establishment of appropriate structures both for preparedness and civil protection against disasters at district and shehia levels.

ii) Shehia Disaster Management Committee

Sheha shall be a chairperson of the Disaster Management Committee at Shehia level and the secretary of the Sheha shall be the secretary of the committee, while advisors to the Sheha shall be members. Other members will be appointed in accordance to the law established based on this policy. Major role of this committee shall be the overseer of all disaster management activities at shehia level. Specific roles include:

- Prepare plans and procedures for disaster management programmes in their respective locations;
- Take operational control in the event of a disaster or emergency so as to ensure that support is provided to the justly effected households;
- Establish a fund for disaster Management at Shehia levels;
- Mobilize needed financial and material resources for disaster management;
- Identify and map all hazards in their respective locations and conduct risk and vulnerability analysis;
- Establish civic groups for disaster management and operations;
- Shehia as an overall overseer shall have the responsibility of empowering and supervising disaster Management activities at household level.

5.3 Other Organizations

5.3.1 Leading Agencies

Leading Agencies are important component of the disaster management and hence shall be identified for each disaster. They will be required to harmonise sections of legislation and develop Standard Operational Procedures related to sector specific disasters. The National Operational Guidelines shall be developed and describe obligation and responsibilities of each agency.

5.3.2 Disaster Management Focal Points

There shall be a disaster Management focal points or desk officer in each institution. The main functions of these focal points will be to facilitate supervision, monitoring and follow up of disaster management issues in their respective fields.

5.3.3 The Disaster Management Forum

The main purpose of establishing the Disaster Management Forum will be to share information and exchange experiences. The forum will be a source of information for the Commission, community and other stakeholders. The Commission shall be responsible for convening the forum at least once annually. Participants will be invited from all stakeholders including private sector.

5.3.4 Early Warning Agencies

The function of early warning agencies comprises of timely forecasts and disseminations of information on potential hazards to appropriate government officials and the population at risk. Tanzania Meteorological Agency (TMA) and Ministries responsible for agriculture and health bear the responsibility of early warnings. TMA serves a final early warning and the monitoring system against hazardous weather. The Ministry responsible for agriculture monitors trends in food production, pest and food products diseases

forecast future trends and impending for shortages in specific locations, while the Ministry responsible for health is responsible for providing early warning on epidemics.

5.4 Roles and responsibilities of institutions

The Government shall have at its immediate disposal every citizen, household, institution, private sector, Civil Society Organisation and development partner as a potential resource during emergency situation. Key institutions and their responsibilities are:

5.4.1 The households

Households are obliged to take measures, within their own capabilities to protect their own lives and properties. The prime goals for informal and formal training, public awareness and sensitization programmes should be centred to the individual households. The concept of mitigation, prevention and initial response required by a community takes place at this level and hence they are responsible for:

- Confront the initial effects of a disaster until support arrives from other levels;
- Provide information on local hazards to the higher authorities for disaster Management so that such information can be incorporated into the programmes of other levels;
- Share knowledge and experience on how they can control hazards for the purpose of reinforcing experiences for effective protection to the households against the hazards they face;

5.4.2 Private sector

The private sector is endowed with expertise, equipment and funds to supplement Government efforts and hence:

- It shall be responsible for safety of their operations;
- It shall be bound to take appropriate precautions and remedial measures in the event of any emergency;
- On emergency response, it shall compromise the commercialized services, such as health and water services.

5.4.3 The Armed Forces and Special Departments

The Armed Forces and Special Departments have specific advantages. They are mobile, organised, have all expertise and are capable of operating independently with their own logistics and hence:

- They shall complement civil efforts needed during emergency situations as shall be requested by the Government.
- They shall perform complementary roles where the civil machinery fails before assistance from outside the country.

5.4.4 Fire and Rescue Department

The Fire and Rescue Department has technical knowhow on fire hazards and rescue operations and coordinates all fire relate activities:

- It will ensure quality and optimum utilisation of fire agents both urban and countryside;
- It shall harmonise existing laws to provide for private sector operation in this field;
- It will supervise adherence to fire protection regulations by all;
- In collaboration with other stakeholders, it shall conduct rescue operations during disasters and emergencies;
- It will provide on-job training on fire hazards and rescue operations to all institutions and local community.

5.4.5 Police Forces

- They shall play specific roles in mitigation, preparedness and response in the areas of security, search and rescue, evacuation, crowd management, fire fighting, emergency medical support, communication and casualty bureau services
- They shall conduct relevant training and exercise to keep abreast with the new techniques under this field.

5.4.6 Local Government Authorities

Local Government Authorities (Municipal and District Authorities) shall have the following responsibilities:

- Play specific roles in mitigation, preparedness and response in the area of sewerage, drainage and solid waste management;
- Conduct awareness campaign on disaster Management issues.
- Identifying and mapping all risk area within their jurisdiction
- Providing financial and material resources for shehia disaster programmes

5.4.7 Transport sector

Sector responsible for transport shall:

- Ensure that transport vessels prepare and maintain proper passenger records;
- Collaborate with other stakeholders in search and rescue operations.
- Ensure adherence of transportation procedures and principles of all vehicles
- Ensure that the Third Party Insurance is mandatory to all passenger and cargo vessels.
- Ensure the inspection of the vessels is made annually

and randomly for the safety of the passengers and their properties.

5.4.8 Environment sector

Sector responsible for environment shall:

- Ensure that environmental impact assessment is done before any project implementation;
- Collaborate with other stakeholders to undertake impact damage needs assessment.
- Provide environmental education to the community

5.4.9 Agriculture sector

The Ministry responsible for agriculture is responsible for:

- Monitoring trends in food production, forecast future trends and impending for food shortages in specific locations;
- Ensuring food security for the entire population;

5.4.10 Livestock and Fishing sector

The Ministry responsible for livestock is responsible for:

- Providing early warning on animal pests and diseases.
- Advocate for the importance of registration and insurance of fishing boats to cover any cost during emergencies.

5.4.11 Health sector

Ministry responsible for health is responsible for:

- Providing early warning on epidemics;
- Providing public awareness on health education.
- Ensuring the availability of preventive and treatment devices during disasters.
- Providing treatments to victims during disasters
- Providing ambulance and/or paramedical services during emergencies

5.4.12 Education sector

Ministry responsible for education is responsible for:

- Mainstreaming disaster Management issues in school curricula at all levels;
- Ensuring adherence of disaster Management measures at school environment.

5.4.13 Tanzania Meteorological Agency (Zanzibar Zone)

Tanzania Meteorological Authority (Zanzibar Zone) shall have the following responsibilities:

- Forecast, monitor and disseminate information on potential hazardous weather to other institutions and population at risk;
- Collect, analyse, interpret and process all weather related data.

5.4.14 Civil Society Organisations

Civil Society Organisations have ability to mobilise additional resources, which are useful in supplementing government efforts during emergencies. They have an advantage of being effective at community level:

- They shall be engaged in promoting public awareness, damage assessment, training, provide assistance and fund self-help activities;
- Encourage its members to participate in disaster management activities aimed at reducing vulnerability to the community and individual.

5.4.15 Regional and International Agencies

United Nations Agencies and other Regional and International Agencies are very important in disaster Management because they provide human resources, equipment, financial and technical support. Their roles are to:

- Strengthen cooperation with the Government to enhance

more resources and expertise requirements for disaster Management activities;

- Participate in the National Disaster Management Forums for the purpose of information and sharing experience;
- Participate in Technical Committees dealing with specific disasters.

5.4.16 The Media sector

The Media has a unique and vital supporting role to play for successful disaster operations. The capacity to properly communicate and inform all stakeholders is crucial in disaster situation coverage. Thus the ministry responsible for media shall:

- Enhance public awareness for warning and resource mobilization to support emergency situation;
- Mainstream disaster issues in their plans and budget;
- Participate in disaster Management forums in order to ensure media's effective contribution and coverage;
- Responsibly report disaster incident, since disaster reports are sensitive and require extra care beyond call of duty when reporting;
- Develop close collaborations with all other stakeholders during disaster strike.

5.4.17 Tanzania Red Cross Society

The Tanzania Red Cross Society is mandated to play specific voluntary humanitarian roles in disasters and emergencies as an auxiliary to public authorities. It has national-wide, regional and international networks, which provide valuable source of trained and skilled manpower and funding. The Society shall be:

- Engaged in sensitizing and mobilization of the community as a front line in disaster prevention, mitigation, preparedness and response;
- Engaged to provide services in other key areas of competences.

6.0 MONITORING AND EVALUATION

The overall accountability of monitoring and evaluation at the national level lies within the National Disaster Management Committee, which shall work in close collaboration with the key Sectoral Ministries. At district level, the District Secretariats shall be responsible for overall monitoring and evaluation. The Local Authorities shall be responsible for monitoring and evaluation at their level. Other key stakeholders (International, Regional and United Nations Agencies, Civil Society Organisations, Business Community, etc.) which play key roles in the implementation of various disaster management activities and thus they shall team up in monitoring and evaluation at their capacities.

The Disaster Management Commission as a coordinating body will collect, compile, analyse and disseminate information on the implementation of various disaster management programmes. This information will then be processed so as to compare various targets with actual implementations of the programmes. The processed information will be published in a document, which will be discussed at disaster management forums on annual basis. This monitoring and evaluation therefore will be one among major policy instruments. Other policy instruments include Legislation, National Operational Guidelines, Disaster Management Action Plan and Hazard and Vulnerability Maps. All these documents have to be developed, analysed, finalised and disseminated to all stakeholders at various levels. Monitoring and evaluation indicators will be designed with the consideration of policy proposed goals, activities and stakeholder's responsibilities.

