# DECLARATION

I, Lutangu Wakumelo, hereby declare that this report:

1. Represents my own work;
2. Has not previously been submitted for a degree at this university or any other; and
3. Does not incorporate any published work or material from another dissertation.

Signature: ----------

Date ----------

# APPROVAL

This report by Lutangu Wakumelo is approved as partial fulfilment of the requirements for the award of the degree of Master of Communication for Development by the University of Zambia

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# ABSTRACT

This report is based on an evaluation of the effectiveness of the communication strategies used by the Disaster Management and Mitigation Unit (DMMU) in Shangombo District concerning the 2008/2009 flood disaster. Since information is very important in disaster management work, the means by which it is made available to the people matters. Effective communication during disasters requires an adequate understanding of the target audience and careful planning of the messages to be communicated and the means to be used, including the personnel.

The data on which the report is based was collected in a case study of two wards in Shangombo District, Simu and Mambolomoka, using a self-administered questionnaire, focus group discussions, in-depth interviews and informal discussions with residents of the district. The study was premised on the rationale that the DMMU's work of preventing disasters or mitigating their effects.

The work of the DMMU in Shangombo District is mainly aimed at ensuring that people's livelihoods are not endangered by the incidence of disasters or hazards. The unit's work can be most meaningful if it was proactive rather than reactive. In other words, hazards in the communities need to be addressed by the unit before they become disasters. Unfortunately, the unit has failed to use effective communication strategies to gain the good will, co-operation and collaboration it needs from the community. As a result, it has come to be perceived as solely a relief agency despite that being only one of its many functions. Pictures of people caught up in disasters across the country also justify the opinion that the members of the unit sit in their offices waiting for a disaster to occur so that they can then go and administer relief services to the affected community. This is the view that is prevalent in Shangombo District.

The study reveals that the failure of the DMMU's strategies with regard to the aspect of communication reside in the inadequacies of the media and personnel it uses; the messages it sends; and the timing of its messages. This strategic failure leads to a failure of its work, generally, which is the conclusion of this report and the testimony of the residents. Some

officials interviewed, including the former District Commissioner, admitted to most of the weakness highlighted in this report, although they attributed them to different factors, most commonly lack of resources.

In general, the report indicates that the DMMU has neither managed to safeguard people from the adverse effects of disaster nor earned their solidarity. A number of the respondents did not even know that the unit existed. It is recommended that the unit reviews its communication strategy with respect to media, personnel, messages and timing as a way of improving its chances of effectively discharging its mandate in disaster-affected regions of the country.

# DEDICATION

I dedicate this work to the memory of my late father, Mr. Richard Inyama Lutangu; my mother, Mrs. D. N. S. Chawalika, all my siblings and cousins; my fiancée, Sarah Mako and my friends, Milton Mulenga, Moze Liso, Edwin Sikaitwa and Joseph Simona.

# ACKNOWLEDGEMENTS

I wish to acknowledge my debt to the following people for their invaluable guidance, support or encouragement during my study programme:

My supervisor, Dr. E. M. M. Bwalya; my lecturers, Mr. Fidelis Muzyamba, Mr. Kenny Makungu and Mrs. Caroline Phiri Chibbonta; and all the staff in the Department of Mass Communication and the Directorate of Research and Graduate Studies;

The Permanent Secretary (A), Office of the Vice President;

Staff at the Disaster Management and Mitigation Unit (DMMU) Headquarters;

The former Member of Parliament for Sinjembela Constituency, Mr. Mubika Mubika;

The former District Commissioner for Shangombo, Mr. Kabayo;

Staff at Shangombo District Council, especially the Council Secretary, Mr. Mwiya Mwiya; and
My course-mates, Pauline Ngazimbi Mtonga, Susan Kirimania Lusambo, Joyce Phiri Mwiinga, Mweembe Siamujompa, Martha Sikwibele, Manda Njobvu, Muleba Matafwali, Melody Simukali, Lucy Mulesa, Bridget Kakuwa and Shadrick Chembe. Others are Tobias Mwanza, Maurice Pengele and Joseph Mumba.

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# GLOSSARY OF ACRONYMS

| | |
|---|---|
| BBC | The British Broadcasting Corporation |
| BRE | The Barotse Royal Establishment |
| CC | The Catalyst Communicator |
| CMML | Christian Missions in Many Lands |
| CSO | Central Statistical Office |
| DAO | The District Administrative Officer |
| DART | Deep-ocean Assessment and Reporting of Tsunamis |
| DDMC | The District Disaster Management Committee |
| DMMU | The Disaster Management and Mitigation Unit |
| GRZ | The Government of the Republic of Zambia |
| ITIC | The International Tsunami Information Centre |
| KAP | Knowledge-Attitude-Practice |
| MMD | The Movement for Multi-Party Democracy (former ruling party) |
| MTN | Mobile Telecommunication Network |
| NAIS | The National Agricultural Information Service |
| NDMC | The National Disaster Management Committee |
| NDMP | The National Disaster Management Policy |
| NDMTC | The National Disaster Management Technical Committee |
| NGOs | Non-governmental organisations |
| NOAA | The National Oceanic and Atmospheric Administration |
| OAS | The Organisation of American States |
| PAM | The Programme Against Malnutrition |
| PDCC | The Provincial Development Co-ordinating Committee |
| PDMC | The Provincial Disaster Management Committee |
| PPM | The Programme to Prevent Malnutrition |
| PRCA | Participatory Rural Communication Appraisal |
| RFI | Radio France International |
| SDA | The Seventh-Day Adventist Church |

| | |
|---|---|
| SDMC | The Satellite Disaster Management Committee |
| SPSS | The Statistical Package for the Social Sciences |
| TAZARA | The Tanzania-Zambia Railway |
| TBN | The Trinity Broadcasting Network |
| TVEAP | Television for Education Asia Pacific |
| UNDP | United Nations Development Programme |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| VoA | The Voice of America |
| ZAMTEL | The Zambia Telecommunications Company Limited |
| ZANIS | The Zambia News and Information Services |
| ZMD | The Zambia Meteorological Department |
| ZNBC | The Zambia National Broadcasting Corporation |

# CHAPTER ONE: INTRODUCTION

## 1. Background

Disasters are events associated with impacts of human-induced or natural hazards that cause serious disruptions in the functioning of communities or society, causing widespread human, material or environmental losses that exceed abilities of affected communities to cope with using only their own resources (Government of the Republic of Zambia [GRZ] 2005b, p. V; GRZ 2009a, p. 3). As implied in this definition, disasters set back the economic and general welfare of communities by disrupting efficient and effective conduct of economic activities, and by exposing people to health and safety hazards. Therefore, the effective management of disasters should be taken seriously by anyone interested in national development and the welfare of citizens. The adverse effects of disasters will increasingly become a bigger problem for governments as their incidence and intensity worldwide greatly increase due to globalisation, population growth, widespread poverty, and various climate-change related phenomena. In urban areas, complex infrastructural systems that facilitate life and economic activities, concentration and centralisation of economic and political functions, social stratification, and complex spatial and functional inter-relationships will contribute to increased vulnerability of people to disasters (International Council for Science 2008, p. 5; United Nations 2008, p. 4; Østensvig, A. 2006, p. 1). The characterisation of the incidence of disasters as a global phenomenon implies that there is no country on earth that is absorbed of the need to effectively manage and mitigate disasters in order for socio-economic development to take place.

Zambia has over the years faced numerous disasters like droughts, floods, epidemics, pests, environmental damage, influx of refugees and industrial, road traffic and aviation accidents (GRZ 2005a, pp. 2-3). In recognition of the adverse impact of disasters on various communities in the country, the Government established the Disaster Management and Mitigation Unit (DMMU) under the Office of the Vice President in 1994 to coordinate the management and mitigation of disasters. One of the regions of the country prone to disasters where the DMMU has had to carry out its work is Shangombo District (GRZ 2005a, p. 6). In executing its mandate,

the DMMU needs to pay particular attention to the effectiveness of its communication strategies, upon which the success of its operations largely depends. This is so because, in every relief operation and, indeed, any work requiring effective coordination, effective communication strategies are very significant ingredients in whatever level of success that may be attained (Mauro 1993, p. 513). Therefore, it is important for all those who are interested in the socio-economic development of Zambia to expend some significant effort on understanding the effectiveness or ineffectiveness of communication strategies used by the DMMU in its disaster management work in various communities, such as Shangombo District. This study evaluated the effectiveness of the strategies used by the DMMU to communicate information on the 2008/ 2009 flood disaster in Shangombo District.

## 1.1. General Overview of Shangombo District

Shangombo District was established by Presidential Order Number 97 of 1997. Prior to this, the region was part of Senanga District (GRZ 2009b, p. 5). As a newly established district, Shangombo faces many challenges, including lack of infrastructure, skilled labour, remoteness from Lusaka, the commercial and administrative capital of Zambia, the proliferation of illegal firearms spilling over from the Angolan Civil War and, most pertinent to this paper, the high frequency of severe flooding (GRZ 2009b, pp. 4-13, 54-103; GRZ 2009a, p. 3; National Assembly of Zambia 2008, pp. 20-21). Below is the profile of Shangombo District, which forms the context in which disasters occur, and in which they are managed.

### 1.1.1. History

The history of Shangombo District is linked with that of Zambia, in general, and Western Province, in particular. It has always been a part of what is called Barotseland, now mostly called the Western Province of Zambia. Compared with most districts in the country, Shangombo is young, having been gazetted in 1997. Initially, it was part of Senanga District (GRZ 2009b, p. 5). The history of the district in the second half of the Twentieth Century is pervaded by the insecurity

that resulted from the spill-over effects of the Angolan Civil War (National Assembly of Zambia 2008, pp. 20-21).

### 1.1.2. Geography

Shangombo District has a sub-tropical climate with a rain season that lasts from November to March; the average annual rainfall is 763mm; as part of the Kalahari semi-arid region, the district is mainly covered by a mantle of Kalahari sands that have limited water-holding and nutrients-preserving capacity; and the average temperature of 29.8°C maximum and 12.8°C minimum. The permanent water bodies are the Zambezi, Lueti and Cuando rivers, but a number of lagoons and streams form during the rainy season. The Cuando River, flowing from Angola, carries water down to Shangombo and this, sometimes, causes flooding even when there is no abnormally high rainfall in the area (GRZ 2009b, pp. 7-8).

### 1.1.3. Population

According to the Central Statistical Office (CSO) (2011, p. 58), Shangombo District had 20,035 household and a population of 85,288, of which 45,058 were females while 40,230 were males. The adult population (18 years and above) was 37,641. The populations for Simu and Mambolomoka wards, the two sample areas, were 6,175 and 9,820, respectively. Simu's adult population was 2,522 while Mambolomoka's was 4,538. The two wards had a combined total population of 15,995 and 3,890 households.

### 1.1.4. Economic Activities

Economic activities of the people of Shangombo include the growing of maize and rice, fishing, cattle-rearing, transportation, logging and retailing in household goods bought mainly from Lusaka, and, sometimes, from Angola. The most important economic activities are subsistence farming and fishing. These economic activities are not adequately developed because of various factors,

including infrastructural inadequacies, the shortage of skilled workers and the effect of flood-related disasters (GRZ 2009b, pp. 92-104).

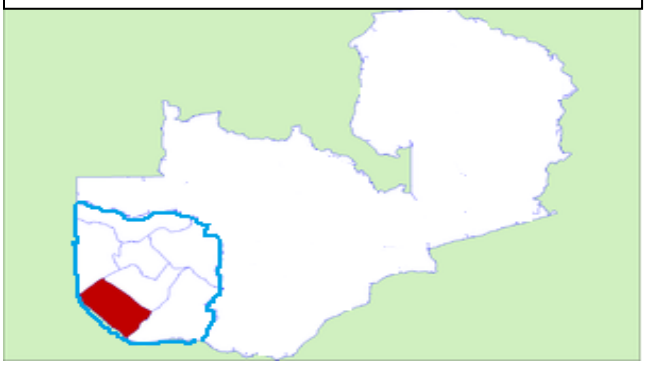
### 1.1.5. Ethnic and Linguistic Context

Shangombo District is ethnically and linguistically very mixed. The main ethnic groups are the Fwe, Mbukushu, Shanjo, Mashi and Mulonga groups, each of which has its own dialect. Mbundas also constitute a minor grouping. However, they all identify themselves as Lozis and, generally, all understand the main Lozi dialect spoken in Western Province called Sikololo (Lisimba 2000, pp. 5-25). The researcher, however, also encountered a number of people who preferred to be spoken to in Sikwamulonga, a dialect of Siluyana, the original, but now almost extinct, language of the Lozi people. There were, also, ethnically non-Lozi, but Lozi-speaking people interviewed during the research.

### 1.1.6. Administrative Context

Like many districts in the country, Shangombo has a three-tier administrative structure, namely, the Central Government, the Local Government and the Traditional Government (GRZ 2009b, pp. 105-115). The Central Government is represented by various departments that include the departments of Agriculture, Education, Forestry and Tourism, Health and Social Welfare. The District Commissioner co-ordinates the work of all the departments and is the direct link between a district and the Office of the President. The Shangombo District Council is the local administrative authority, while the Kaunga-Mashi Royal Establishment under the Barotse Royal Establishment (BRE) is the traditional authority (GRZ 2009b, pp. 105-115).

*Figure 1: Map of Zambia Showing Western Province and Shangombo District*



http://www.google.co.zm/imgres?imgurl

## 1.2. Disaster Management in Zambia

For a long time, Zambia has been afflicted by a number of disasters, including the six years of droughts between 1986 and 1996 that caused starvation in the country (GRZ 2005b, p. i). Other disasters common in Zambia are floods, epidemics, pests, environmental damage, influx of refugees and industrial, road traffic and aviation accidents (GRZ 2005a, pp. 2-3).

### 1.2.1. The Evolution of Disaster Management in Zambia

The Zambian Government was prompted by the incidence of numerous disasters and hazards to establish a permanent response mechanism to deal with the problem. Three institutions have been established over the years, the current one being the DMMU. Two years after Independence, in 1966, the Contingency Planning Unit was established in the Office of the Prime Minister and oversaw disaster management activities until it was replaced by the Programme Against Malnutrition (PAM) in 1992. The DMMU replaced PAM in 1994 (GRZ 2005a, p. 2).

In 1991/1992, a drought caused widespread starvation in Southern Africa and, in Zambia, necessitated a major relief operation involving the four key ministries of

Health, Agriculture, Energy and Water Development, and Community Development and Social Services. These ministries formed a committee co-chaired by the ministries of Agriculture and Health to co-ordinate the response to the drought. The programme was called the Programme to Prevent Malnutrition (PPM) and its secretariat was called the Programme Against Malnutrition (PAM). Despite this attempt at co-ordination, the ministries involved mainly operated their own elements of the response in isolation, leading to red-tape, overlapping, work duplication and resource wastage as the disaster management framework in the country remained fragmented. Eventually, however, the necessity to create a better co-ordinated unit within the Government establishment to initiate, implement and coordinate disaster management policies and programmes was realised. This realisation led to the establishment of the Disaster Management and Mitigation Unit under the Office of the Vice President in 1994 (GRZ 2005a, p. 2).

### 1.2.2. The National Disaster Management Policy

The National Disaster Management Policy was approved by the Cabinet of the Republic of Zambia in 2005 to regulate the conduct of stakeholders in disaster management in the country (GRZ 2005a, p. 2). In 2010, the Disaster Management Act was passed in the National Assembly of Zambia to provide the legal framework for the anticipation, preparedness, prevention, co-ordination, mitigation and management of disaster situations and the organisation of relief and recovery from disasters; establishment of the National Disaster Management and Mitigation Unit and provide for its powers and functions; the declaration of disasters; the establishment of the National Disaster Relief Trust Fund; the responsibilities and involvement of members of the public in disaster management; and the handling of matters connected with or incidental to disaster management and mitigation in the country (National Assembly of Zambia 2010, p. 1).

#### 1.2.2.1. Vision of the National Disaster Management Policy

The vision of the National Disaster Management Policy (NDMP) is:

> To promote a "safety net" for protection of the citizenry, their assets and the environment against disasters through a pro-active, community-based, developmental and multi-sectoral approach that combines disaster preparedness, prevention and mitigation, and integrates disaster management into national development. All development plans should embrace disaster management aspect namely, mitigation, prevention, preparedness, response, relief, rehabilitation and construction." (GRZ 2005a, p. 9).

In essence, the vision of the NDMP gives the disaster management authorities the mandate to protect citizens from all the adverse effects of disasters.

#### 1.2.2.2. Rationale of the National Disaster Management Policy

The rationale of the National Disaster Management Policy is essentially that the state has an obligation to provide security to its citizens from both human and natural threats, as well as a long-term social "safety net" in which people can go about their business towards prosperity in a conducive environment. "Where and when this safety net is endangered, the state is obliged to take action to preserve it" (GRZ 2005a, 9). In this research, the focus was on the evaluation of the communication strategies of the DMMU and how they have, if at all, contributed towards the provision of the social safety net that is the rationale of the National Disaster Management Policy.

#### 1.2.2.3. Guiding Principles of the National Disaster Management Policy

The guiding principles of the National Disaster Management Policy are as follows:

(a) the Government bears the primary responsibility of protecting its people, infrastructure and other assets from the impact of disasters;

(b) disaster prevention, preparedness and mitigation are integral parts of mainstream development efforts at the community, district, provincial and national levels;

(c) the development and strengthening of capacities to prevent or mitigate the effects of disasters are top priorities for the Government of the Republic of Zambia;

(d) an effective national early-warning system is key in the success of disaster prevention, preparedness and mitigation as well as response;

(e) the promotion of sustainable development among vulnerable communities improves their resilience, making them contribute more to national development;

(f) effective environmental management promotes sustainable development;

(g) a national culture of prevention and preparedness is an essential component of multi-sectoral approaches to disaster risk reduction;

(h) training and information management are key in disaster management;

(i) simulation exercises are cardinal in enhancing disaster management preparedness;

(j) disaster effect are gender-selective, affecting mostly women, children and the elderly. Hence, gender consideration in disaster management shall be prominent at all levels;

(k) risk assessment and mapping are key to effective disaster management; and

(l) disaster management is the responsibility of every Zambian citizen.

(GRZ 2005a, pp. 9-10).

The principles that have been outlined must anchor all disaster management operations and policies in the country.

#### 1.2.2.4. Goal and Objectives of the National Disaster Management Policy

The goal of the NDMP is "to strengthen national capacities for effective disaster preparedness, response, mitigation, restoration, and prevention, in order to protect lives and livelihoods, property, environment and the economy at large" (GRZ 2005a, p. 10).

The overall goal of the National Disaster Management Policy breaks down into the following specific objectives:

(a) to put in place adequate preparedness measures in order to manage disasters efficiently and effectively;

(b) to activate a response mechanism for effective and timely search and rescue operations in order to save life and damage to property;

(c) to put in place measures to restore livelihoods and other life support systems of the affected communities;

(d) to mitigate the destructive and disruptive effects of hazards and disasters in order to reduce their impact on vulnerable communities, assets and the environment;

(e) to put in place preventive measures in order to reduce negative effects of hazards and strengthen the national capacity for disaster management in order to avoid the adverse impact of hazards; and

(f) to coordinate disaster management activities through a body of procedures and practices in order to avoid duplication of efforts and resources at all levels.

(GRZ 2005a, pp. 10-11).

This paper evaluated the extent to which the communication strategies of the DMMU in Shangombo effectively contributed to the attainment of the goal and objectives above.

### 1.2.3. Institutional Framework for Disaster Management and Mitigation

Disaster prevention, management and mitigation in Zambia is done in the complex institutional framework consisting of the National Disaster Management Committee (NDMC), the National Disaster Management Technical Committee (NDMTC), the DMMU, the Provincial Disaster Management Committee (PDMC), the District Disaster Management Committee (DDMC), the Satellite Disaster Management Committee (SDMC) and stakeholders (GRZ 2005a, p. 5). Effective co-ordination amongst these levels of the disaster management institutional matrix is important for the effective realisation of the objectives of the national disaster management enterprise. However, borrowing Mauro's idea of placing effective communication at the centre of the success of all endeavours

requiring effective co-ordination of human interaction (Mauro 1993, p. 513), it is self-evident that effective communication is a precondition to the necessary co-ordination among the various disaster management sub-structures. It is in this vein that this research placed a high premium on the communication strategies employed.

#### 1.2.3.1. National Disaster Management Committee

The National Disaster Management Committee (NDMC), chaired by the Vice-President deputised by the Minister of Defence, is the supreme policy-making body for disaster management in the country. Other members of the committee are the Ministers of Home Affairs, Communication and Transport, Agriculture, Energy and Water Development, Finance and National Planning, Local Government and Housing, Community Development and Social Services, Works and Supply, Mines and Mineral Development, Health, Tourism Environment and Natural Resources, Education, and Information and Broadcasting Services. Other cabinet and provincial ministers may be co-opted as need arises. The functions of the NDMC are:

(a) formulating the National Disaster Management Policy;

(b) directing line ministries to take up their portfolio responsibilities as they relate to disaster management activities;

(c) endorsing national plans and regulations;

(d) recommending declarations of national disasters; and

(e) facilitating the mobilisation of resources for disaster management activities in the country.

(GRZ 2005a, pp. 15-16).

#### 1.2.3.2. The National Disaster Management Technical Committee

The National Disaster Management Technical Committee (NDMTC) is multi-sectoral and acts on behalf of the National Disaster Management Committee. Chaired by the Permanent Secretary for Administration in the Office of the Vice President deputised by the Permanent Secretary, Ministry of Defence, its function is to supervise the technical aspects of the overall disaster management activities in the country. Permanent Secretaries in the Ministries of Home Affairs, Communication and Transport, Agriculture and Cooperatives, Energy and Water Development, Finance and National Planning, Local Government and Housing, Community Development and Social Services, Works and Supply, Mines and Mineral Development, Health, Tourism Environment and Natural Resources, Education, and Information and Broadcasting Services, together with the United Nations Resident Coordinator and a Church representative constitute the rest of the membership. Any other permanent secretary, private sector or civil society institution might become a member *ex officio*. The committee has sub-committees on health, water and sanitation; finance and tender; infrastructure, relief and logistics; agriculture and environment; security; early-warning systems; and training and public education. Its responsibilities include:

(a) recommending Disaster Management Policy directions to the NDMC;

(b) co-ordinating the overall implementation of the decisions of the NDMC;

(c) supervising the work of the DMMU in preparation, monitoring and regularly reviewing National Disaster Management Plans;

(d) supervising the work of the DMMU in monitoring and regularly reviewing Sectoral Disaster Management Plans; and

(e) managing the National Disaster Trust Fund.

(GRZ 2005a, pp. 16-17).

**1.2.3.3. The Disaster Management and Mitigation Unit**

The DMMU is a statutory body put in place to coordinate the work of all governmental responses to disasters. Headed by the National Coordinator, who is its Chief Executive Officer and reports directly to the Vice President during disasters, it serves as the secretariat for all national disaster management structure and co-ordinates with village, district, provincial, regional, continental and global disaster management structures (GRZ 2005a, pp. 20-21).

Guided by its Mission statement, which is: "To effectively and efficiently manage disasters in order to minimise loss of lives, damage to property and environment through harmonisation of national efforts" (GRZ 2005a, p. 3), the DMMU performs the following functions:

(a) designing and implementing disaster management activities;

(b) coordinating and monitoring disaster management programmes in order to rationalise resource-utilisation and ensure their effective implementation;

(c) reducing Zambia's vulnerability to disasters in identified areas of concern (geographical or sectoral);

(d) putting in place appropriate measures that minimise the negative effects of disaster;

(e) activating response mechanisms for effective, timely search and rescue operations, in order to save lives and minimise damage to property, in times of a crisis; and

(f) putting in place measures aimed at restoring livelihoods and other life support systems of the affected communities.

(GRZ 2005b, p. 3).

#### 1.2.3.4. The Provincial Disaster Management Committee

The Provincial Disaster Management Committee (PDMC) is a subcommittee of the Provincial Development Coordinating Committee (PDCC). It is chaired by the Provincial Permanent Secretary and consists of all heads of departments and stakeholders that are likely to be involved in disaster management issues. The secretariat is the Provincial Disaster Management Coordinator's office. The functions of the Provincial Disaster Management Committee are:

(a) preparing and consolidating provincial disaster management plans;

(b) acting as a clearing house for information related to early-warning;

(c) monitoring the preparation and implementation of district disaster management plans and evaluating their impact;

(d) participating in disaster risk analysis and vulnerability assessments;

(e) mobilising provincial resources for implementation of mitigation, prevention, preparedness and response activities;

(f) coordinating provincial-level multi-sectoral in-put into national disaster management plans;

(g) collecting and disseminating information on provincial disaster management issues;

(h) acting as a channel for information and resources between the Central Government and districts;

(i) promoting and implementing disaster management training at the provincial level and ensuring that training programmes are carried out at district level;

(j) promoting public awareness at provincial and district levels;

(k) performing emergency operations for the province in times of disasters; and

(l) operating and updating a database on disaster- related information.

The chairperson identifies and appoints new members of the committee as need arises.

(GRZ 2005a, pp. 17-18).

**1.2.3.5. The District Disaster Management Committee**

The District Disaster Management Committee (DDMC) is a subcommittee of the District Development Coordinating Committee (DDCC) with a secretariat in the District Administrative Officer's office. Chaired by the

District Commissioner and consisting of all heads of departments, relevant NGOs, the private sector, the Church and the District Administrative Officer (DAO), its functions are a district-level replication of those of the PDMC. The chairperson, after consultations with the general membership, is empowered to identify and co-opt new members into the committee as need arises (GRZ 2005a, pp. 18-19).

#### 1.2.3.6. The Satellite Disaster Management Committee

The Satellite Disaster Management Committee (SDMC) falls under the DDMC. It is a permanent committee established to co-ordinate and implement disaster management and mitigation at the village or local level. A satellite committee might oversee work in one village or a cluster of villages in a chiefdom. The chairperson and the whole team of ten members are elected by the community according to this quota system: one representative from the traditional establishment; at least three local persons trained in any field, for example, a teacher, extension officer, health worker or any skilled person; representatives of major religious groups working in the area; two men and two women selected to represent the community; at least one youth representative; a prominent businessman or farmer; and, a local representative of a non-governmental organisation involved in disaster management or relief work. Its functions replicate those of the DDMC at the household, community or village level. They include the following:

(a) overseeing disaster preparedness, relief and post-disaster recovery activities of individuals and households in its area;
(b) identifying vulnerable households and individuals;

(c) acting as a clearing house for information related to early-warning;

(d) acting as primary responding and mitigation agent within the existing capacities of the community;

(e) participating in disaster risk analysis and vulnerability assessments at the village level;

(f) acting as an information and reporting channel for the community with regard to disaster management issues at the local level; and

(g) sensitising the local community on the effects of disasters and appropriate responses.

The secretariat, elected by the committee, maintains a database of disaster-related matters. An important aspect to note is that gender concerns are mainstreamed in the composition, responsibilities, roles and activities, and efforts are made to ensure equal representation of men and women on the committees at all levels. (GRZ 2005a, pp. 18-19).

#### 1.2.3.7. Other Stakeholders

Stakeholders working with DMMU in disaster-related work include the United Nations system, the donor community, the private sector, the Church and the community, including the victims. Other than the suppliers of requisites to the DMMU are also important stakeholders in the process of disaster management. These, generally, supplement government effort in disaster management and mitigation (GRZ 2005a, pp. 21-22).

## 1.3. Communication and Transport in Zambia

Zambia has various infrastructures for communication and transport, including rail lines, a road network, airports and air strips, a number of rivers that are navigable over long

stretches, and various entities providing services in print media, radio, television, fixed-line and mobile telephony, and Internet Services.

### 1.3.1. Rail Lines, Roads and Airports/Airstrips

The main rail networks in Zambia are two: one starts from the border with Zimbabwe in Livingstone, cuts across the country into the Democratic Republic of Congo through to the Angolan port of Benguela while the Tanzania-Zambia Railway (TAZARA) starts from Kapiri Mposhi in Central Province and stretches all the way to the Tanzanian port of Dar-Es-Salaam. The Livingstone railway connects Zambia with South Africa through Zimbabwe. The country also has over 37,000 kilometres of roads, which are either tarred, gravelled or ungravelled (*http://www.zambiamining.co.zm/introductiontozambia.htm- accessed on 23/3/12*), and four international airports, namely, Harry Nkumbula, Kenneth Kaunda, Mfuwe and Simon Mwansa Kapwepwe (*http://www.nacl.co.zm/index-* accessed on 23/3/12). There are many other airports and airstrips scattered across the country with each district, including Shangombo, having, at least, one (*http://www.ourairports.mobi/countries/ZM/airports.html*- accessed on 23/3/12).

### 1.3.2. Broadcast and Print Media

In terms of the media, Godfrey Malama (2008, pp. 114-118), Intermedia (2011) and Gerald Mwale (2010, pp. 8, 42- 45) list a number of television and radio stations, and newspapers operating or accessible in the country between 2007 and 2010.

The television stations listed are the Zambia National Broadcasting Corporation (ZNBC) with two channels, operated by the State through the Ministry of Information and Broadcasting Services; MUVI TV; Mobi TV; CB TV; CBC TV; Trinity Broadcasting Network (TBN); My TV; and Multi-Choice Zambia. Multi-Choice and My-TV are subscription satellite television services. Excluding the

ZNBC, these television stations are privately owned. Multi-Choice Zambia is also majority-owned by the ZNBC. The books also list a number of radio stations the majority of which are privately operated commercial or community stations. They include ZNBC Radio offering radios 1, 2 and 4; Chikuni, Ichengelo, Liseli, Maria, Mosi-O-Tunya, Yangeni and Yatsani run by the Catholic Church; Christian Voice run by a Christian trust; Radio Maranatha run by the Seventh-Day Adventist (SDA) Church; FCC run by the Christian Missions in Many Lands (CMML); UNZA Radio run by the University of Zambia, Department of Mass Communication; Hone FM run by the Department of Journalism of the Evelyn Hone College of Applied Arts and Commerce; Parliament Radio run by the National Assembly of Zambia; and Q-FM, Sky FM, Chikaya, Choice, Lyambai, Mano, Joy FM, Flava FM, Breeze, Mkushi, Solwezi, 5 FM, Hot FM, Zambezi FM, Petauke Explorer, Your Anthem, Pasme, Mkushi, Mumbwa, Lutanda, The Southern Guardian, Mpangwe, Luapala, all run by private investors. Apart from these local radio stations, there are also three international radio channels available on FM, namely, the British Broadcasting Corporation (BBC), Voice of America (VoA) and Radio France International (RFI).

In terms of access, in 2009, 87 per cent of households in Zambia owned one or more radio sets (94 per cent in urban and 84 per cent in rural areas) while 45 per cent owned a television set (83 per cent in urban and 24 per cent rural areas); 88 per cent of respondents said they listened to the radio every day or had listened over the previous seven days while the corresponding figure for television was 58 per cent.

### 1.3.3. Print Media

The most common print medium is newspapers, although a number of magazines, mainly imported ones. Listed were the Times of Zambia, the Zambia Daily Mail, the Sunday Times of Zambia and the Sunday Mail, published by the Government; The Post and the Sunday Post, published by The Post Newspapers Limited; and

The Guardian, the Monitor & Digest, Zambia Analysis, Health Journal, New Vision and The Zambian Farmer, published by different organisations. The Government also owns the Zambia News and Information Service (ZANIS) through the Ministry of Information and Broadcasting (Mwale 2010, pp. 8) and the National Agricultural Information Services (NAIS) through the Ministry of Agriculture Food and Fisheries (http://www.comminit.com/node/147725- accessed on 21/3/12).

### 1.3.4. Telephony

In terms of telephony, Zambia has three telephone service providers. The Zambia Telecommunications (ZAMTEL) Company Limited provides both fixed-line and mobile telephone services while Bharti Airtel, which has, in the past, been known as Zamcel, Celtel and Zain, respectively, and MTN are the two other providers of mobile telephone services (*http://www.zicta.zm/index.php?option=com_content&view=article&id=27&Itemid=27-* acc-essed, 25/4/12). Figure 1 shows subscriber statistics for mobile telephony from 2000 to 2008.

*Figure 2: Mobile Phone Growth Trend in Zambia*

| Year | Country Population | Subscribers | Per 100 Inhabitants | Mobile Internet | Growth rate (%) |
|---|---|---|---|---|---|
| 2000 | 9,885,591 | 49,957 | 0.505 | - | 32.47 |
| 2001 | 10,089,492 | 97,900 | 0.97 | - | 95.97 |
| 2002 | 10,409,440 | 139,258 | 1.338 | - | 42.25 |
| 2003 | 10,774,382 | 204,150 | 1.895 | - | 46.60 |
| 2004 | 11,089,691 | 413,120 | 3.725 | - | 102.36 |
| 2005 | 11,441,469 | 949,558 | 8.299 | - | 129.85 |
| 2006 | 11,574,190 | 1,663,051 | 14.369 | - | 75.14 |
| 2007 | 11,708,450 | 2,639,026 | 22.539 | 215, 472 | 58.68 |
| 2008 | 11,900,000 | 3,207,679 | 26.955 | 791, 464 | 21.54 |

NB: Mobile Internet access in Zambia was introduced in 2007 (*http://www.zicta.zm/index.php?option=com_content&view=article&id=31&Itemid=76*).

### 1.3.5. Internet

Zambia has thirteen Internet service providers, namely, Africonnect, BringCom Zambia Limited, Bharti Airtel, CopperNET Solutions, Epochal Digital Technology, Microlink Technologies, Microlink, MTN Zambia, Post Link Limited, Quick Edge, Realtime Zambia Limited, UUNet Zambia, ZAMNET Communications Systems and ZAMTEL. Airtel, ZAMTEL Mobile and MTN also provide their Internet services on their mobile telephone networks (*http://www.zicta.zm/index.php?option=com_content&view=article&id=27&Itemid=27-* acc-essed on 25/4/12). The table below shows some subscriber statistics relating to the Internet.

*Figure 3: Internet & ISP Connectivity Data -Zambia*

| Year | Country Population | Total Subscribers | Per 100 Inhabitants | Type of Internet | | Growth rate (%) |
|---|---|---|---|---|---|---|
| | | | | Dial Up | Broadband | |
| 2001 | 10,089,492 | 8,248 | 0.082 | 7,627 | 621 | |
| 2002 | 10,409,440 | 11,647 | 0.112 | 10,826 | 821 | 41 |
| 2003 | 10,774,382 | 12,000 | 0.111 | 10,857 | 1,143 | 3 |
| 2004 | 11,089,691 | 16,288 | 0.147 | 15, 334 | 954 | 36 |
| 2005 | 11,441,469 | 10,882 | 0.095 | 10,179 | 703 | -33 |
| 2006 | 11,574,190 | 11,996 | 0.104 | 10,067 | 1,929 | 10 |
| 2007 | 11,708,450 | 17,946 | 0.153 | 12,578 | 5,368 | 49.6 |
| 2008 | 11,900,000 | 18,078 | 0.152 | 12,484 | 5,671 | 0.73 |

*(http://www.zicta.zm/index.php?option=com_content&view=article&id=31&Itemid=76)*

Apart from the conventional communication media, Zambians in rural areas also use xylophones and drums to advertise villages where beer was being sold. Music and theatre, face-to-face talks and errands have also been used, especially, in anti-HIV/AIDS campaigns.

In Shangombo, radio is the most readily available communication medium on short wave. Television, the Internet and fixed-line telephone services are non-existent while mobile telephone services are available only at the Boma area (Airtel) as well as Nangweshi and Sioma, and newspapers from Lusaka reach the district a day later (MTN) (GRZ 2009b, p. 28). The Council Secretary, with whom the researcher lodged during the research, did have a multiChoice decoder and access to satellite television. The researcher found that villagers in Shangombo also used xylophones and drums to advertise villages where beer was being sold. Music and dance were also common tools of social mobilisation.

## 1.4. Problem Statement

The process of disaster prevention, management and mitigation depends, among other things, on the effective exchange of information among the main stakeholders, namely, the community, the media, the experts/technocrats, and public authorities (Krishna, S. P. et al., 1998, p. 34). Mauro (1993, pp. 513-514) and Barrantes et al., (2009, pp. 13-14) propose a disaster management model in which the communication of information holds a central role in the interaction of different actors. Adopting this model, it becomes clear that the effective management and communication of information is essential to the success of any overall disaster management strategy. In turn, the effective management and communication of information depends on the formulation of effective organisational communication strategies (GRZ undated, p. 3). It is implied above, therefore, that the DMMU must have in place working communication strategies in the various areas where it operates.

According to the Global Platform for Disaster Risk Reduction (2011, p. 2), disaster management strategies should prioritise disaster prevention over mitigation and recovery because, as it is said, prevention is better and cheaper than cure. Many reports of people caught by surprise by disasters in various areas acrross the country and Shangombo, in particular, in the news media and Vulnerability Assessment reports, however, had implied that there might have been strategic failures in the disaster management regime in the country (GRZ 2009b, p. 5). Part of this strategic failure could be ascribed to the DMMU's inability to warn people about impending disasters in their areas for them to have taken the necessary steps that might have included evacuation before disasters hit. It could also have been the case that the DMMU did not, itself, get early warning information on hazards before they became disasters, as should have been the case (Dudrey and et al., 2009, p. 3). It could, then, be asked if the strategic failures implied in these reports may not have resided in the DMMU's use of ineffective communication strategies.

This case study sought to evaluate the effectiveness of the communication strategies used by the DMMU in its work in two wards of Shangombo District, namely, Simu and Mambolomoka. The question to be addressed was: "How effective are the communication strategies used by the DMMU in Simu and Mambolomoka wards of Shangombo District?"

## 1.5. Rationale

One needs not be a rocket scientist to come up with the reasons disasters are considered bad for any country. The overarching reason is that disasters, generally, tend to have a retrogressive effect on the development of any nation (Organisation of American States [OAS] 2005, p. 9). Since Zambia has not been immune to the incidence and adverse effects of disasters, it is important that the country has in place an effective disaster management regime. As indicated already, effective communication strategies are integral to the success of any disaster management strategy. To this effect, this research sought to contribute to the body of knowledge required for an adequate understanding of

the role of effective communication processes and strategies in prevention, management and mitigation of disasters in Zambia. It was hoped, too, that an objective analysis of the DMMU's disaster communication strategies and processes would help the institution identify any opportunities for improvement or consolidation in its programmes, particularly, in the aspect of communication strategy.

## 1.6. Scope

The focus of the study was primarily to investigate the processes and strategies that were used by the DMMU in communicating disaster information to various stakeholders before, during and after the 2008/ 2009 floods in Shangombo district, with a bias towards aspects of participation in the process by all concerned. The study was restricted to Simu and Mambolomoka wards, the latter having been the worst affected area during the floods of 2008/ 2009 (GRZ 2009b, p. 13).

# CHAPTER TWO: METHODOLOGY

## 2. Research Design

The study employed both quantitative and qualitative research methods. This triangulated design ensured a comprehensive understanding and interpretation of the phenomenon under investigation by affording multiple perspectives to the research (Langdridge 2004, p. 256.).

### 2.1. Research Aim

This research was intended to assess the effectiveness of processes and strategies used by the DMMU to communicate disaster information about the 2008/2009 flood disaster in Shangombo District. The analysis is biased towards aspects of participation by the local people.

### 2.2. Objectives

The specific objectives of the research were as follows:

(a) to discover how much information was communicated on the 2008/2009 floods in Shangombo prior to the floods (forecasting);

(b) to assess the media types and personnel used by the DMMU to disseminate information in Shangombo District;

(c) to analyse the messages disseminated by the DMMU in Shangombo District concerning the 2008/2009 flood disaster; and

(d) to assess how participatory the communication that took place, if any, actually was.

## 2.3. Research Questions

The research was guided by the following questions:

(a) How much information was communicated on the 2008/ 2009 floods in Shangombo prior to the floods (forecasting)?

(b) What media types and personnel were used by the DMMU to disseminate information before, during or after the 2008/ 2009 floods in Shangombo District?

(c) What kind of messages were disseminated by DMMU concerning the 2008/2009 floods in Shangombo District?

(d) How participatory was the communication, if any, between the DMMU and the affected communities over the 2008/ 2009 floods in Shangombo District?

## 2.4. Sample Areas and Population

The research was done in Simu and Mambolomoka wards, Sinjembela Constituency, Shangombo District. The population of research subjects was all the men and women in the two wards (that is Simu and Mambolomoka).

## 2.5. Sample Size

The sample size was 100 adults in each ward randomly selected to answer questionnaires. The combined total sample for the two wards was 200. For qualitative surveys, in-depth interviews and one focus group discussion were conducted in each ward. Participants in the in-depth interviews were key informants chosen because of their relevance to the research topic and were mainly DMMU officials, the district leadership and community leaders. The Member of Parliament was also interviewed. In addition, some residents were orally interviewed to acquire their views on the communication processes and strategies of the DMMU in their area.

## 2.6. Sampling Procedure

The study used a multi-staged sampling procedure in which purposively-selected wards were classified into zones. The sample zones were, then, randomly selected. In choosing respondents, the researcher tried to balance the sexes, although men were the more readily available. The number of respondents chosen in each zone was also determined on the basis of the population size of each. This procedure was meant to increase the degree to which the sampling would give all members of the population a non-zero chance of being selected while, at the same time, giving due cognisance of the sex stratification in the sample areas (Langdridge 2004, pp. 40-41).

## 2.7. Data Collection

Quantitative and qualitative methods were used to collect data. The techniques included analysis of secondary data, in-depth interviews, a focus group discussion and a self-administered questionnaire.

### 2.7.1. Documentation

The researcher analysed documents relevant to the operations of the DMMU and other stakeholders in the disaster management enterprise. This helped him to understand the policy, institutional and operational contexts of disaster management in Zambia.

### 2.7.2. In-depth Interviews

In-depth interviews with key informants, people involved in disaster management work, by which reason they were considered to have special insight on the subject, were conducted by the researcher. The key informants included the District Commissioner, the Planning Officer, the Council Secretary, the Headteacher of Mambolomoka Basic School, the Clerk at the Local Court and the Headman of Mboiwa Village. The interviews lasted an hour a session. Interviews were also conducted on some individuals according to the convenience of the

researcher. These were not considered a main data collection instrument but, rather, a means for the researcher to sample some perceptions on some peripheral issues not tackled on the questionnaire.

### 2.7.3. Focus Group Discussion

Two focus group discussions were held, one at Mambolomoka, the other at Mboiwa School. At Mambolomoka, the discussion was held in the Court Clerk's yard. The participants included the Court Clerk and five villagers who were included on the basis of their availability. The discussion held at Mboiwa School was attended by mostly village women as most men, including the headman, refused to participate. In general, most people approached did not welcome the idea of a group discussion, preferring, instead, individual interviews.

### 2.7.4. Self-Administered Questionnaire

A quantitative survey of respondents on how they received information from the DMMU or other disaster management officers, whether they knew the obligation of the Government to help all disaster victims in the country, which institution or organisation they thought was responsible for helping disaster victims, which media they preferred to be notified on about disasters, whether they had ever participated in a communication event concerning disasters, and their views on communication processes and strategies of the DMMU was done using a self-administered questionnaire (appendix 1) designed on a knowledge-attitude-practice (KAP) framework. The researcher was available to explain the questionnaire to the respondents.

## 2.8. Data Analysis

The Statistical Package for Social Sciences (SPSS) and Microsoft Office Excel were the primary tools for programming and analysing quantitative data while qualitative data was analysed for themes relevant to the topic as borne by the aim and objectives of the study.

## 2.9. Limitations of the Study

The research was limited by many factors. One of them was that the research area was very far from the town of residence of the researcher. This entailed significant financial challenges for him in terms of transport, lodging and food. The researcher also encountered difficulties in administering the questionnaire because most settlements, especially in Mambolomoka Ward, were too far apart that he had to travel several kilometres from one settlement to another. The fact that there is no public transport service worth mentioning in the district meant that the researcher had to walk for two weeks, resting only during administration of the questionnaire and in the night when sleeping. This was the case for both wards. While travelling in Mambolomoka, the researcher was also under the constant threat of being killed by wild animals as the whole district is in a game management area. Elephants were particularly terrorising the villagers at the time. The high illiteracy levels among the respondents were also a big challenge because the researcher had to spend too much time explaining the questionnaire and, in some instances, help the respondents in filling it in. The other challenge faced by the researcher was that most respondents mistook him for a Government functionary and those who were not particularly pro-Government were not too willing to give him their co-operation. It was equally a big challenge for the researcher to mobilise the right people for the focus group discussions and the researcher ended up holding them with those who availed themselves. The final limitation of this study was the non-availability of any helpful library material on disaster management and mitigation in Zambia, in general, and Shangombo, in particular. This made it very difficult for the researcher to have a significantly directive bibliography.

# CHAPTER THREE: CONCEPTUAL AND THEORETICAL FRAMEWORK

## 3. General

There are a number of important concepts used in this paper and theories that underpinned the research. These are discussed below.

### 3.1. Conceptual and Operational Definitions

For purposes of this study, key words and concepts were used as defined below.

#### 3.1.1. Communication

Communication has been defined by A. S. Hornby as "the activity or process of expressing ideas and feelings or of giving people information" (2005, p. 304). When people communicate, they "create and share information with one another to reach a mutual understanding" (Rogers 1983, p. 5). An important implication of this definition is that communication brings about convergence or divergence in how people perceive and interpret phenomena (Rogers 1983, p. 5). People, therefore, communicate to increase shared knowledge, that is, their 'common sense' about issues that affect them. This is an indispensable precondition for all community organisation. Communication may take place between units of different sizes and complexity. It may occur between or within individuals, groups, organisations, social classes, nations, countries and regions of the world. Obviously, the character of communication varies with the size and complexity of the units communicating.

Over the millennia, human beings have used various media to communicate both in space and time. They have used wood and stone, parchment and paper, fire,

smoke, flags and semaphores including electricity and electro-magnetic waves. As new media for communication have been created and developed with the progress of time, the old ones have become specialised and restricted to certain areas and/or functions, but none have been completely abandoned (Rosengren 2000, p. 36). Rosengren further argues that "human communication is basically intentional. It is conscious, willed action by at least two parties" (Rosengren 2000, p. 36). However, the term is polysemous and, thus, defined variously by different scholars. In this study, it refers to the process of exchanging ideas, information and opinions through speech, writing, pictures, and the symbols in order to achieve a mutual understanding between or among the parties involved (Taylor 2005, p. 4). It is a process in which information or messages are shared by a source with a recipient through a given channel in order to influence the receiver's thoughts and actions. The effect of the signal may be to maintain or discontinue some behavioural predisposition or attitude (Taylor 2005, p. 258; Sillars 2007, p. 22). According to Berger and Burgoon (1998, p. 1), every communicative act of one person that is apprehended by another will always alter the latter's perceptions, attitudes, beliefs and motivations. The two authors further state that "communication and social influence are inextricably linked". There are four levels of communication, namely intrapersonal, interpersonal, group and mass communication. In this report, 'communication' is the purposeful exchange of information between, or among, two or more parties.

#### 3.1.1.1. Intrapersonal Communication

Intrapersonal communication, therefore, refers to communication that happens within a person. Every time communication takes place between two or among many parties, there is one among the interactants who conceives the information to be communicated and the objective for communicating it. All this will happen in his or her mind (Sillars 2007, p. 24). This is an example of intrapersonal communication. Another example of intrapersonal communication is that of a person realising that he or she is thirsty, reaching into their pocket or purse for some money to buy some

bottled water, and advising themselves against proceeding in that action upon realising that the amount they have is enough for the bus fare only. The decision to prioritise the fare over quenching one's thirsty is a result of some internal debate and evaluation of the consequences of taking each of the available options. Although this level of communication has been considered less important in social life than the other three levels (i.e. some people argue that a person's internal thoughts are useless to society unless they are shared), it is obviously important because it underpins individuals' decision-making processes and decisions made by individuals sometimes have significant implications for other people around them, for example judges. In this report, 'intrapersonal communication' is the internal process by which a person generates and processes information and makes decisions on various issues that face him or her.

#### 3.1.1.2. Interpersonal Communication

Interpersonal communication is the exchange of information, ideas, feelings and emotions, ideally between two people interacting face to face, in the same time and space, in order to create shared meanings (Microsoft Encarta 2008). This level of communication is considered the most effective and meaningful way of sharing ideas because it permits meaningful interaction between the communicants, allowing them to encode and decode messages that take account of the other's personal attributes, and to use the aspect of shared context to enhance the effectiveness of the process. This is called communication competence. Communication competence is not easy to apply in mass communication and group communication because one must, at these levels, communicate simultaneously with people with different attributes, expectations and pre-exposure to the subject of communication (Berger and Burgoon 1998, pp. 1-21, 116).

Interpersonal communication is important because of the functions its serves. As stated already, it is a means of influencing the behaviour of other people. It can be used to influence others into pro-development modes of behaviour and thought. The term is used in this report to refer to the exchange of information between two people.

#### 3.1.1.3. Group Communication

Poole and Roth (1989, pp. 323-356) define group communication as that which occurs in groups. These may range between three to twelve and increasing to twenty individuals in certain instances. There is no established standard as to the exact number that should constitute a group for purposes of communication. Examples of groups in which communication might take place are families, clubs, a clique of friends and religious groups (Microsoft Encarta 2008). Group communication generally takes place in a context that mixes interpersonal communication interactions with social clustering and in which group dynamics is a very important factor (Microsoft Encarta 2008). This level of communication is important because, sometimes, it is not possible or necessary to involve everyone in a communication process, and it may allow for by-passing and, consequently, greatly simplify and speed up the process of sharing information (Sillars 2007, p. 31). The smaller the group, the more effectively interactive the communication process will be. A very large crowd, such as one at a political rally, makes interactivity very difficult and this limits opportunities of getting effective feedback (Microsoft Encarta 2008). This limits the overall effectiveness of a communication event because appropriate feedback is an indication of the occurrence of successful communication (Taylor 2005, p. 12). In this report, 'group communication' refers to the exchange of information among three or more people who are able to interact face to face simultaneously.

#### 3.1.1.4. Mass communication

Mass communication is communication by means of broadcasting and newspapers, which reaches all or most people in society (Microsoft Encarta 2008). The most significant characteristic of mass communication is that messages are intended for a non-defined and, at times, unknown audience, while the scope for immediate and meaningful feedback is very limited. The ‘‘mass’’ for whom messages are created are very heterogeneous and detached so that person-centred messages are not easily composed because doing so would suit the information for just a section of the audience. One might have to make a message intended for a mass audience as impersonal as possible so that it is not biased to some people at the expense of others. According to Herbert Blumer (1951, p. 186), the mass “has no social organisation, no body of custom and tradition, no established set of rules or rituals, no organised group of sentiments, no structure of status roles and no established leadership.” This entails an inevitable compromise on the quality of the messages because one of the basic requirements of an effective message is that it must be suited to the receiver in terms of its content, medium, language and time of delivery (Taylor 2005, pp. 7- 24.). It is a very important form of communication, however, when the same message has to be communicated to an audience so large that face to face interpersonal communication is not feasible (Lang and Lang 2009, p. 1). This report takes ‘mass communication’ to mean the communication of information simultaneously to a large, heterogeneous and usually geographically dispersed audience.

### 3.1.2. Communication Strategies

A communication strategy is “a well-planned series of actions aimed at achieving certain objectives through the use of communication methods, techniques and approaches” (Mefalopulos and Kamlongera 2004, p. 8). This definition implies

that the basic element to strategy is the understanding that any important project should be planned carefully from beginning to end in terms of objectives, inputs, processes and overall aims. A communication project, especially one in which the success of the project can mean the difference between life and death for another person, for example, in a disaster situation, is not absorbed of this necessity. This report adopts the foregoing definition.

### 3.1.3. Disaster

For purposes of this paper, a disaster is:

> An event that is associated with the impacts of a human-induced or natural hazard which causes a serious disruption in the functioning of a community or society, causing widespread human, material or environmental losses which exceed the ability of the affected community or society to cope using only its own resources (GRZ 2005b, p. v).

### 3.1.4. Disaster Management Prevention Preparedness Mitigation and Recovery

Disaster management is "the organisation, and management of resources and responsibilities for dealing with all aspects of emergencies (including disaster prevention and mitigation), but especially disaster preparedness, response and rehabilitation or recovery (Holloway 2003, p. 6). Disaster prevention refers to "activities to provide outright avoidance of the adverse impact of hazards and related environmental, technological and biological disasters" (Holloway 2003, p. 7) while disaster mitigation refers to "on-going structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards;" (Holloway 2003, p. 7). Disaster preparedness refers to "activities and measures to ensure effective response in an emergency and its impacts, including timely and effective early warnings and the temporary removal of people and property from a threatening location" (Holloway 2003, p. 7) while disaster relief/response is "the provision of assistance and/or

intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those affected" while disaster recovery refers to "decisions and actions taken after a disaster with a view to restoring living conditions of the stricken community, while encouraging and facilitating adjustments to reduce disaster risk" (Holloway 2003, p. 7). The foregoing definitions are adopted for the purpose of this report.

### 3.1.5. District and Ward

Administratively, Zambia is divided into provinces, districts and wards. A province is the largest division consisting of a number of districts; a district is a division of a province while a ward is the smallest division. A number of wards constitute a district (*http://www.statoids.com/yzm.html*- accessed on 24/4/12; *http://www.zamstats.gov/media/cen_atl.pdf*- accessed on 24/4/12). The two sample areas of this research, Simu and Mambolomoka are both wards.

### 3.1.6. Media

The word 'media' refers to "the various strategic, technological and institutional choices available for the dissemination of information from the source to the intended recipients. These include television, radio, magazines, and newspapers, together with the people involved in their production" (Woolcott, L. A and Unwin, W. R 1983, pp. 262-263). This is the definition adopted in this report.

### 3.1.7. Flood

A flood is "a very large amount of water covering an area that is usually dry" (Hornby 2005, p. 957). This study was done in an area that gets flooded to varying degrees during the flood season. Although this is a yearly occurrence, it affects an area that is dry for most of the year. Hornby's definition is adopted by this report.

### 3.1.8. Participation

According to White et al., (1994, p. 17) 'participation' is a term that is semantically highly dynamic, changing shape according to the "beholder" and "shaped by the hand of the power-holder". For purposes of this report, 'participation' is the inclusion of intended beneficiaries at all stages of the process of conceiving, planning, implementing and evaluating a development project (Dagron, G. A. 2001, p. 10). The inclusion referred to is not one in which the community members are merely informed, manipulated, placated or consulted, as is the case in 'pseudo-participation.' Rather, responsibilities are delegated to them and they are empowered to play a full part in the cycle of a project as partners. That is what is called 'genuine participation' (White et al., 1994, p. 17). This report uses the term to refer to genuine participation as defined by White et al., (1994, p. 17).

### 3.1.9. Participatory Communication

Tufte and Mefalopulos (2009, p. 7) conceive participatory communication as the use of communication strategies that place more emphasis on the articulation of processes of collective action and reflection by relevant stakeholders, in the process empowering citizens by allowing their active involvement in the identification of problems, development of solutions and implementation of strategies. That is the definition adopted in this paper.

### 3.1.10. Development

There exists no universally accepted definition of the word 'development'. This is because various scholars have described it differently. For example, the concept of an underdeveloped country, so familiar in the post-Second World War era, was conceived principally with reference to the stage a country's economy had reached or failed to reach. More particularly, development was defined in reference to "the degree to which the country's economy is geared to modern

technological tools and devices" (Azkin 1958, p. 151). Adherents of this view associated development with a higher material standard of living, full employment, improved health standards and the spread of education accompanied by a heightened level of self-esteem while Hogendorn (1996, p. 4) envisaged development as being "exclusively an area of economics that must draw frequently on knowledge from other disciplines", including law, sociology, anthropology, political science and history. In his book, How Europe Underdeveloped Africa, Rodney defines development as follows:

> At the level of the individual, it implies increased skill and capacity, greater freedom, creativity, self-discipline, responsibility and material well-being. Some of these are virtually moral categories and are difficult to evaluate – depending as they do on the age in which one lives, one's class origins, and one's personal code of what is right and what is wrong. However, what is indisputable is that the achievement of any of those aspects of personal development is very much tied in with the state of the society as a whole (Rodney 1973, p. 1).

Anyaegbunam et al., (2004, p. 6) give a definition of development that is people-oriented as follows:

> Human development is the process of enlarging the capabilities, choices and opportunities of people, especially the rural and the poor, to lead a long, healthy and fulfilling life. This process includes the expansion of people's capacity and skills to gain access to and control over factors that affect the basic needs essential to their lives. These needs include freedom from poverty, food security and availability of safe drinking water and improved sanitation. Other needs involve access to primary health care and basic education as well as the opportunity to participate effectively in the social, economic and political affairs of their societies and nations.

Also important in development discourse, however, are the practical applications of studying human development. Better understanding of how and why people change and grow can help people live up to their full potential. It is arguments like these to which Kasoma subscribes and concludes that development, as a

process, must comprise certain characteristics. It should be centred on the human being. That is, it should result in the improvement in the human condition. Apart from this, it should entail progression as opposed to retrogression. Further, though the concept of development might be dominated by material or economic notions, in some cases "material prosperity might even retard the improvement of certain aspects of the human life condition" (Kasoma 1994, p. 403). Dr. Bwalya defines the term as follows:

> A process directed at outcomes encapsulating improved standards of living and greater capacity for self-reliance in economies that are technologically more complex and more dependent on global integration than before. Hence, development is a positive change (for the better) from conditions (social, economic, cultural and human) that are no longer considered good enough for the goals and aspirations of society to those that are most likely to meet those goals and aspirations (Bwalya 2009, p. 4).

As such, development is a multi-faceted concept impacting on all aspects of human endeavour. The concept of development used in this paper engenders all the views above as well as the element of sustainability of development programmes, which enables humanity to meet "the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987, p. 8).

## 3.2. Theories that Underpinned the Study

Theories relevant to this study are Agenda-setting, Uses and Gratification, Diffusion of Innovations, Multi-Step Flow of Information, Motivation-Knowledge-Skills, Participatory Rural Communication Appraisal and Multiplicity Development.

### 3.2.1. Agenda-setting Theory

Agenda setting is one of the theories on media effects. In essence, the theory posits that the media, in its coverage of news and events, has a powerful and inevitable influence on people's prioritisation of issues that come to their

attention. In other words, the media decides for the public what matters are important and what matters are to be ignored. Two assumptions basic to most research on agenda setting are that the press and the media do not reflect reality; they filter and shape it, and that the media's concentration on a few issues and subjects leads the public to perceive those issues as being more important than others. This gives some salience to some issues at the expense of others (McCoombs and Shaw 1977, pp. 73-81).

The agenda-setting theory asserts that the media affects cognitive change in the public and may influence the public's agenda by deliberately exposing them to selected information, which primed so that it assumes salience in people's minds.

This research was anchored, in part, on the argument that if the DMMU considers disasters to be as important in national development as claimed by the rationale of the National Disaster Management Policy of 2005, it would have primed their messages on the floods in Shangombo in such a way that they would have assumed prominence on the national consciousness, not only for victims to whom the floods were important by virtue of having had to live under the shadow of their adverse effects.

### 3.2.2. Uses and Gratification Theory

The uses and gratifications theory, also known as usage and gratifications or needs and gratifications theory is not a single approach, but rather a body of approaches to media analysis that developed out of many varied empirical studies. Its main postulate is that people are not passive victims of the effects of media content but, rather, active seekers of information motivated by various needs that would be ameliorated by exposure to some selected forms of media content (Smith 1985, pp. 560-561). The needs met by selective exposure to information are grouped in four basic categories, namely, *surveillance*: which is the need of people to monitor events occurring around them; *correlation*: the need of people to interpret the

information they are exposed to and decide appropriate response mechanisms; *socialisation*: the need of people to attune themselves to the behavioural patterns appropriate to their culture; and *entertainment*: the need of people to expose themselves to media content as a source of amusement (Smith 1985, pp. 560-561).

The implication of this theory is that people will choose to expose themselves only to the media content that meets some need in their lives. For this study, it implies that the strategies used by the DMMU in Shangombo District to communicate disaster information needs to be meaningful and packaged in a manner that makes obvious the information's practical usefulness to the people of the district in coping with disasters.

### 3.2.3. Diffusion Theory

The theory of Diffusion of Innovations, as articulated by Everett Rogers (1983, p. 5), posits that any new idea, attitude or behaviour (innovation) gains currency in a community by being "communicated through certain channels over time among the members of a social system". The theory mentions four important variables that determine the ability of a given attitude or practice to attain currency in a community, namely, innovations, communication process, social system and time. An innovation is any "idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers 1983, p. 11).

For this study, the desire by DMMU to change people's behaviour into appropriate forms that prevents their vulnerability during disasters is an example of promotion of an innovation. An innovation usually has two aspects, namely 'hardware' and 'software' aspects. The hardware aspect consists in the material or physical components of the innovation while the "software" aspect consists in informational, attitudinal or behavioural patterns that attend an innovation (Rogers 1983, p. 12). This innovation will not be perceived by all the people in the community but, rather, started and promoted by an individual or agency (such as DMMU). For it to attain widespread subscription, it has to be brought to the

attention of the general populace, which necessitates a communication process. In any society, there usually are some people with a great ability to consistently informally influence other individuals in their community towards preferred attitudinal or behavioural modes. The influence is informally exerted because it is not a function of a person's formal social position (Rogers 1983, p. 27). Opinion leaders are, however, shaped by the norms of their social system, even as they are the major contributors towards the structure of their society. There is, in other words, mutual influence between the social structure and its opinion leaders. The greater the number of individuals a person will be able to influence towards preferred attitudinal or behavioural modes the greater one's imprint on the social structure will be. On the other hand, the degree to which people are able to influence other members will largely depend on the degree to which they reflect, express and represent the social structure (Rogers 1983, pp. 27-28). Everett Rogers (1983, pp. 27-28) gives the characteristics of effective opinion leaders as being the following:

(a) they have greater exposure to all forms of external communication;

(b) they are more cosmopolite;

(c) they have a somewhat higher social status; and

(d) allowing for mitigating effects of the social structure, they are relatively more innovative.

The theory of opinion leadership is important to this study because it implies that the people chosen by the DMMU to communicate about and during disasters may either enhance or hinder the manner in which their messages are received, whether more favourably or unfavourably. If the opinion leaders in Shangombo are more antagonistic towards the work of DMMU in their area, they are not only reflecting the norms of their society but will, more importantly, influence their

followers to have the same attitudes. This will translate into a major hurdle for the DMMU to overcome. If opinion leaders are generally supportive of DMMU's work, on the other hand, its work will be made much easier because it would have very potent allies for influencing the masses towards attitudes and behaviour that are appropriate for preventing or surviving disasters.

### 3.2.4. Multi-Step Flow of Information

The Multi-Step Flow of information is a reaction against the Two-Step Flow theory, which held that information always flows from the source (gate-keeper) to the influential members of a given community or trendsetters called opinion leaders before who then pass it on to other members of the community (Windahl et al. 2009, p. 78- 93). The multi-step flow suggests that the actual flow of information does not always flow in a linear top-down model but, rather, in a complex matrix that can, and does, flow either way in many different directions, including from the audience to the supposed opinion leaders. Sometimes, it can even flow straight from the source to the members of the community, skipping the opinion leaders all together while, at other times, it moves horizontally among peers. The theory also holds that there are no people who are opinion leaders on all issues, meaning that today's opinion leader is tomorrow's opinion follower and, therefore, that it is not logical to imagine that there can be stable opinion leaders in any community (Windahl et al. 2009, pp. 78- 93).

The relevance of this theory to the research is that it informed the researcher in analysing the effectiveness of the DMMU's choice of people to communicate disaster information on its behalf. It was important to assess the appropriateness of the DMMU's choices of 'mouthpieces' in its dissemination of information.

### 3.2.5. Motivation-Knowledge-Skills Theory

The Motivation-Knowledge-Skills theory posits that communication competence is the ability to choose a communication behaviour that is both appropriate to the

situation and effective in achieving desired results. This is because there is no 'one technique fits all situations' in communication (Morreale et al., 2007, p. 2). This communication competence is possible if a person has three key attributes: the desire to communicate effectively or *motivation, knowledge* of facts about phenomena and situation-appropriate communication behaviour and the ability to apply one's knowledge about appropriate behaviour in context (*skills*) (Spitzberg and Cupach 1989, pp. 5-16).

The Motivation-Knowledge-Skills theory was important for this study because it guided the researcher in the appraisal of the communication strategies of the DMMU *vis-a-vis* their appropriateness to the disaster situation and the DMMU's commitment and ability to communicate effectively.

### 3.2.5. Participatory Rural Communication Appraisal

Anyaegbunam et al., (2004, pp. 16-17) describe Participatory Rural Communication Appraisal as a communication research method that uses a combination of field-based visualisation techniques, interviews and group work to generate information for the design of effective communication programmes, materials, media and methods for development purposes to ensure relevance and ownership by the people. Participatory Rural Communication Appraisal facilitates dialogue among people, themselves, and between them and development workers, in order for all parties to reach mutual understanding and plan for action. It is, therefore, used to promote the involvement of people in decision-making over issues that affect their lives.

In addition, Anyaegbunam et al. (2004, p. 16) contend that Participatory Rural Communication Appraisal is anchored on the definition of communication that explains it as an interactive process characterised by the exchange of ideas, information, points of view and experiences between persons and groups. In Participatory Rural Communication Appraisal, the sharing of information is paramount and people are considered important sources of information and ideas

worth listening to. As such, passiveness is non-existent because it requires active mental cooperation for everyone involved until a common awareness and understanding is reached. It comes out of the realisation that the wealth of collective indigenous knowledge among rural people, despite most of them not undergoing formal education, could be used to raise their living standards. It was equally realised that when rural people were involved in the identification of their own problems and needs, they are more likely to support the actions needed to address the situation (Anyaegbunam et al., 2004, pp. 39-51).

The PRCA, although more of a technique than a conventional theory does contain a very strong theoretical element that guided the researcher on aspects of participation by local communities in the conception, preparation, design and presentation of messages communicated by the DMMU.

In discussing the activation of participation, White (2000, pp. 35-51) emphasises the need to use development communicators who are 'catalyst communicators' (CC). These are communicators who are socially committed, culturally sensitive, empathetic in interpersonal interactions, democratic, motivated by a desire to sustainable development, psychologically prepared for social action, trained in participatory planning and evaluation methodologies and knowledgeable about participatory processes. While they may have a desired outcome for a given activity, they do not make it explicit to the people among whom they are facilitating. They merely manipulate the circumstances to make them conducive for effective dialogue aimed at identifying common problems and finding solutions to them. The catalyst communicator sets the stage for constructive interaction between people for purposes of identifying and solving problems.

White (2000, pp. 53-67) also distinguishes the facilitator from the advocate. While the advocacy has predetermined outcomes, facilitation allows for outcomes and means of attaining them to be a result of the interaction process. In other words, the advocate facilitates predetermined outcomes while the facilitator focuses

purely on the process, leaving outcomes to issue out of the process.

### 3.2.6. Multiplicity Theory of Development

The developmental theory of multiplicity builds on the "Another Development" model of the Dag Hammarskjold Foundation (White et al., 1994, pp. 156-157). The main assumption of multiplicity theory is that there is no universal development model. Different regions need to work out development models that will best address their challenges in a more holistic manner. Multiplicity theory is the theoretical foundation of participatory communication models. The theory is highly relevant to the study because it stresses integration of indigenous knowledge, resources, culture and people in the conception, design, implementation and evaluation of development projects with the development worker seen as a facilitator and not the benefactor or donor of intellect. Unlike the Participatory Rural Communication Appraisal, the multiplicity theory looks at participation at a wider developmental platform, not merely communication.

# CHAPTER FOUR: LITERATURE REVIEW

## 4. General

There are many disasters that have hit various parts of the world over the decade and previous to it and a lot of information has been published over them. There are also some programmes that have been implemented to address problems resulting from or associated with disasters. Below is a discussion of some of them.

### 4.1. The Indian Ocean Tsunami

One of the most devastating natural disasters the world has experienced, in terms of loss of life and damage to infrastructure and all aspects of human life, was the Indian Ocean Tsunami of December 2004 which affected many countries and territories around the Indian Ocean. The Tsunami, Japanese word meaning 'coastal wave' (Microsoft Encarta 2008) was caused by a 9.0 magnitude undersea earthquake off the north-western coast of the Indonesian island of Sumatra (Microsoft Encarta 2008). The disaster claimed the lives of over a quarter of a million people and billions of Dollars' worth of economic devastation over an area covering more than 5000 kilometres. A body of information has since been generated surrounding the incidence, notably a 42-page report of a "regional brainstorming meeting" organised by the United Nations Development Programme (UNDP) and Television for Education Asia Pacific (TVEAP) summarising a discussion on approaches to managing information before, during and after disasters. According to the report from the post-Tsunami reflection on communication, people managing disaster relief and those reporting on and researching the disaster can be subjected to stressful communication arising from not appreciating differences in their respective needs and priorities (TVE Asia Pacific 2007).

In 1965 the International Tsunami Information Centre (ITIC) was established by the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO). The purpose of the ITIC, based in Honolulu, Hawaii, is to mitigate the hazards posed by tsunamis by helping nations that rim the Pacific Ocean prepare for a tsunami. Both the Pacific Tsunami Warning Centre and the ITIC are operated under the auspices of the United States National Oceanic and Atmospheric Administration (NOAA). The NOAA also operates the Pacific Marine Environmental Laboratory in Seattle, Washington, a leading research centre for the study and monitoring of tsunamis.

The Pacific Marine Environmental Laboratory developed the first reliable scientific instrument for detecting tsunamis and quickly alerting scientists when a tsunami occurs. The instrument, known as a tsunametre, is anchored on the ocean floor and measures changes in water pressure when a tsunami passes above. Six of these instruments are deployed in the Pacific Ocean. When a tsunametre detects a tsunami, it sends acoustic signals to a buoy on the surface. The buoy converts the signals to radio waves and relays the data to an orbiting satellite, which then alerts several warning centres, including the Pacific Tsunami Warning Centre in Ewa Beach and the West Coast Tsunami Warning Centre in Palmer, Alaska. The entire process takes only about two minutes. NOAA scientists then study the signals to determine if a tsunami warning is necessary.

The early warning system is known as the Deep-ocean Assessment and Reporting of Tsunamis (DART). In 2005 only the Pacific Ocean had a DART system. Reliable early warning systems do not yet exist for other ocean basins. However, in late 2005 India started using 11 tidal gauges and seismic monitors in the Indian Ocean to establish an interim warning system until a more comprehensive system could be completed. Once a tsunami warning is issued, people are warned to seek high ground and to stay away from coastlines (Microsoft Encarta 2008).

## 4.2. Hurricanes Katrina, Rita and Wilma

In the Americas, water-related disasters have been frequent in the last and the current

decade. Notable in recent water disasters are the three hurricanes: Katrina, Rita and Wilma.

### 4.2.1. Katrina

On August 28, 2005, Hurricane Katrina hit the southern coast of the United States with devastating effect. It was reported that more than 1,800 people lost their lives, and more than $81 billion dollars in damages occurred. As a result, efforts to assist those affected by Hurricane Katrina still continue, as those affected by the terrible hurricane continue to work to regain the health and livelihood that they had before the storm (*http://www.hhs.gov/disasters*- visited on 16-11-11). In the wake of the disaster, the Bush Administration was accused of not having done enough to help the victims. It is possible that some of the Government's failures, real or perceived, were communication-related.

### 4.2.2. Rita

Hurricane Rita was the second Category 5 storm of the 2005 Atlantic hurricane season. The first was Hurricane Katrina, which devastated much of the Mississippi, Louisiana, and Alabama shoreline when it came ashore on August 29. Rita weakened slightly before hitting the shore over the Texas or Louisiana coastline in September. There was a communication opportunity for those in the United States of America to learn from the experiences of other countries affected by Rita before she hit them (*http://earthobservatory.nasa.gov/NaturalHazards*- visited on 16/11/09).

### 4.2.3. Wilma

Hurricane Wilma started in the Caribbean on October 18, 2005 and battered the island nations, notably Cuba, before heading for the Florida coastline in the

United States where it did not cause many casualties but still caused a lot of infrastructural damage and loss of man hours (*http://www.ncdc.noaa.gov/oa/climate/research/2005/wilma.html*- accessed on 25/7/11). Compared with the tsunami discussed earlier, the three hurricanes fade away in significance, but that should merely point to the incomparably devastating impact of the former, not be, in any way, an indication of the harmlessness of the latter.

## 4.3. The Kariba Dam, Kuomboka Ceremony

The Tonga and Kore Kore people of the Gwembe Valley faced a situation that was by all measures a disaster, albeit a man-made one: the construction of the Kariba Dam and their consequent displacement from the land they had occupied for centuries into the surrounding relatively unproductive and rocky land. In 1958 a short-lived small scale armed campaign to resist the construction of the dam was organised.

The Kariba Dam is a classic example of the insensitivity of projects imposed on local communities without their participation. Praised for its ability to forever address the electricity needs of the two countries involved, Zambia and Zimbabwe, the project was a death blow to their communities and culture, both of which had lived for centuries in the Gwembe Valley along the northern and southern banks of the Zambezi River. However, in 1958, this wide valley turned from river to reservoir and whole villages were flooded, displacing 57,000 people. Affected communities were given little information about the dam and no choice but to move. Some displaced communities resisted resettlement, but were defeated by colonial authorities in a short battle known as the Chisamu War. Today, those who remember the displacement have grown old, yet, along with new generations of their children and grandchildren, they continue the struggle for survival. These communities were promised irrigation and electricity at their new sites, but most still live without these basic services. Schools and health facilities are scarce. Malnutrition and hunger are a common sight. The safety net of this rural community has unravelled.

The dam was built by the British Empire to electrify the industries of Southern Rhodesia

and the copper mines of Northern Rhodesia. However, little funding was allocated by project developers for the resettlement process. The Tonga and Kore Kore affected communities are searching for solutions and redress. Led by traditional leaders and local non-governmental organisatioms (NGOs), the communities continue to fight for adequate rehabilitation and for the project's developers to take responsibility for this unjust legacy (*http://www.internationalrivers.org/en/africa/kariba-dam-zambia-zimbabwe-* visited on 25/7/11).

The Kuomboka Ceremony deserves special mention in this paper because its history tells one of the best examples of a hazardous situation that was effectively managed and continues to be celebrated hundreds of years later.

Very early in their history, the Lozi people who were in the flood plain, including the Paramount Chief, the Litunga, started facing challenges relating to the seasonal flooding of their homeland. At first, high mounds were raised into platforms on which villages were built. Some floods, however, would still raise the water level so high that life on the plains became unsustainable. This prompted the Lozi to identify higher ground on the margins of the plain on which to be taking refuge during particularly high floods. This they called "Kuomboka" meaning "getting out of the water" (Mbikusita-Lewanika [Undated) 268]: Over the years, the Lozi people have developed a system in which they keep two village establishments: one on the never flooded high land outside the plain for habitation during the time the plains are flooded and another on the plain for habitation during the dry season. The Litunga's permanent Capital during the floods is at Limulunga while the main palace is in the plains at Lealui. The practice has evolved into a yearly ceremony that is celebrated with much fanfare, earning the country a lot of money through tourism in the process. The interesting thing about Kuomboka is that other people could easily be doing what the Lozi in the flood plain do annually–temporarily relocating to higher ground during the flooding season. Many, however, seem content to have their areas declared disaster zones and them as disaster victims. The Lozis in the flood plain have worked out such an exciting solution to their problem with their habitat that they welcome floods every year in anticipation of the Kuomboka ceremony (Mbikusita-Lewanika [Undated]: 268).

## 4.4. Shangombo

Shangombo is an extension of the Barotse Flood Plain and subject to seasonal flooding at a low scale. When there is above-normal rain, however, the floods get out of hand and people's lives are adversely affected. However, the flooding occurs over a period of time and people are rarely caught unaware like it happens in cases of tsunamis. Of particular interest to this study were the floods of the 2008/2009 season. According to DMMU, infrastructure such as roads and bridges were damaged, submerged and/or washed away. Mud houses had collapsed resulting in a total of 460 people (76 households) being displaced. Further, water points and toilets in the affected communities had been submerged and some collapsed, three schools were closed due to submerged classrooms, teachers' houses and toilets. Water points (boreholes with hand pumps) mainly located at schools, were submerged by the floods with a possible risk of contamination at some points. The impact of the floods on the crop stand and potential yield could not be established. However, in Simu Ward most fields were flooded (GRZ 2009b, p. 7).

## 4.5. Disaster Management

Quite a lot of literature has been published on disaster management and mitigation. It is a shame that very little of it concerns Zambia. A few of the publications have been reviewed below.

According to Murakami (2009, p. 4), 20.5 per cent of the world's major earthquakes occur in Japan. It is, therefore, very necessary that the country has in place an effective disaster management policy and information system. The author divides the disaster management and mitigation cycle in two phases, namely, the pre-disaster phase and the post-disaster or recovery phase. During the former phase, he emphasises that disaster management activities must focus on gathering information on hazards and sharing it with stakeholders, especially the potential victims in what is called early warning. He also suggests that people in risky areas must be evacuated to safer areas and that this should be done smoothly (Murakami 2009, p. 3).

The aspect of pre-disaster evacuations is quite interesting as it usually seems to be absent in Zambia, where pictures of people being evacuated only when they are already under a disaster too often paint a picture of lack of pro-activeness when it comes to evacuating people. After the disaster has occurred, Murakami suggests that people are supposed to be assisted to rebuild their livelihoods. He also suggests that the exchange of information is very important at all stages of the process of disaster management (Murakami 2009, p. 3). The author also presents an infrastructure model for disaster communication. Skinnemoen et al. (2009) discuss the importance of geo-imagery in disaster management and promote the application of satellite geo-mapping and imagery in the facilitation of rapid geo-spatial disaster information. Sutton and Tierney (2006, pp. 3-12) focus on the aspect of preparedness for disaster, including hazard identification and risk, impact and vulnerability analysis; management, direction and co-ordination of activities; formal and informal response agreements; supportive resources; life safety protection; property protection; emergency coping and restoration of key function; and initiation of recovery. The International Council for Science (2008) proposes an integrated plan for research into the increasing incidence and severity of disasters in the light of climate change, globalisation, population growth and widespread poverty, particularly in hazardous areas. The National Disaster Management Division (2004) presents a status report on disaster management in India, including the institutional and policy framework, preparedness, guidelines to State Governments, mainstreaming of disaster management in the development process, the funding mechanism, restructuring of relief departments in the states, and community involvement and awareness generation, particularly that of the vulnerable segments of population. The Economic and Social Commission for Asia and The Pacific (2009) reviews the implementation of The Hyogo Framework for Action in Asia and The Pacific in China and assesses that country's disaster management system's response to the Wenchuan Earthquake. Finally, Nicolai et al. (2008) propose a natural disaster management communication system model for the state of Indiana, United States of America.

# CHAPTER FIVE: FINDINGS

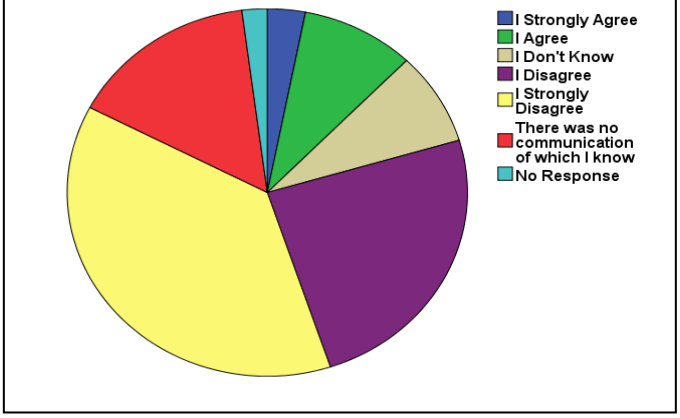
## 5. General

The findings of the study generally show a failure by the communication strategies of the DMMU to positively impact on the knowledge, attitudes and practices of the people of Shangombo District concerning the 2008/2009 flood disaster. The key findings are discussed in detail and interpreted in line with the objectives of the study. Another important matter is that the DMMU did not have any written-down communication strategy or policy, save for an indication of the reporting channels along the organisation's hierarchy.

### 5.1. Forecasting

Although the DMMU received advance warning of the likelihood of above-normal rainfall activity from the Zambia Meteorological Department (ZMD), a fact confirmed by officers in the unit, out of 196, only 24 said that they were happy with the timing of the communication while 123 said they were not, 16 did not know, three did not respond and 30 did not know of any official communication that had taken place concerning the disaster, although the research was done in August, 2010, more than a year from the incidence of the floods. Furthermore, when asked whether they were satisfied with the amount of information they had received concerning the floods, only 39 per cent of respondents said that they were either very satisfied, satisfied or slightly satisfied, while the rest were dissatisfied or very dissatisfied, except for eight per cent who either did not provide a response or had not receive any information on which to comment. Eighty-two per cent

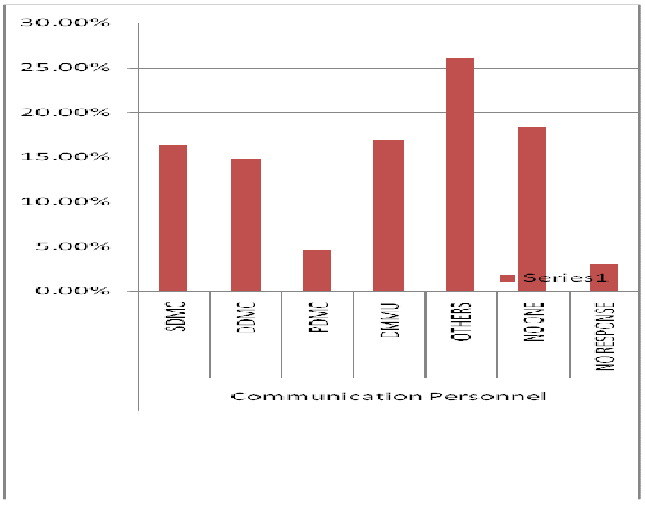
*Figure 4: Attitude towards timing of communication*



actually indicated a desire to get more information on the floods, although the flood had long receded by then.

## 5.2. Media and Personnel

*Figure 5: Communicators*



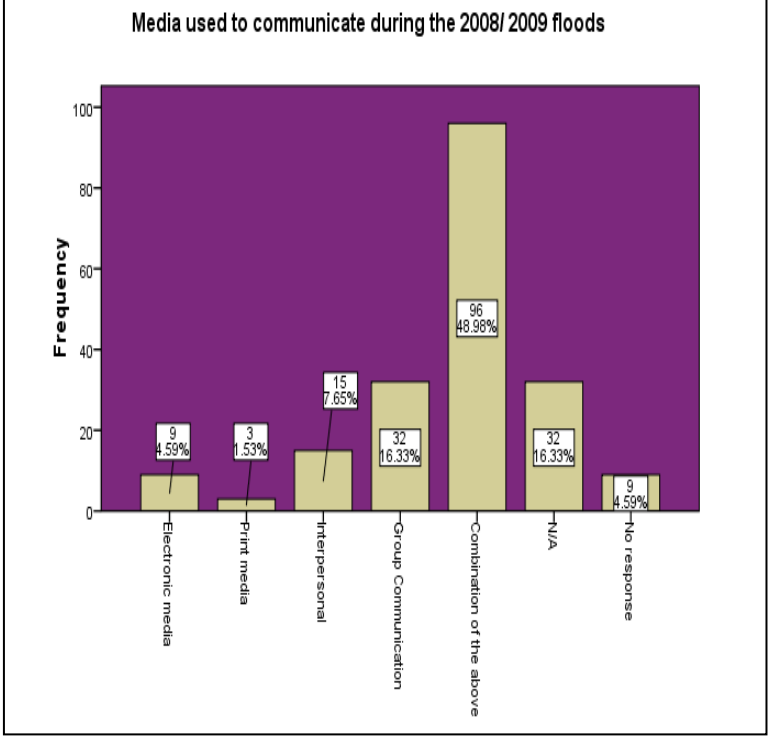

The findings show that 24 per cent of respondents had received information through face-to-face dialogue or meetings. Furthermore, although an overwhelming majority received information in more than one medium, the combinations were of personal media. Only about seven per cent of the respondents polled had received information on print or electronic media. In terms of personnel, more than 51 per cent of respondents had been communicated to by people working within the institutional framework of the State disaster management structure while 26 per cent could not remember who communicated to them and opted to indicate 'others'. Within the State's disaster management structure, the PDMC communicated with the least number of respondents (4.6 per cent) while the SDMC, the DDMC and the DMMU communicated with the majority of respondents averaging 16 per cent each (see figures 4 and 5).

## 5.3. Information

As stated already, almost all the communication between the DMMU and victims of the flood disaster in Shangombo took place after the flooding had taken place. As a result, most of the information communicated was about telling people whose homes and crops had been destroyed by the floods where they could get shelter, relief food services.

The messages were, therefore, those meant to help people deal with the flooding that had already adversely affected them. Unfortunately, even the information that was communicated in this reactive, rather than proactive, manner was considered inadequate, as mentioned earlier.

*Figure 6: Media*



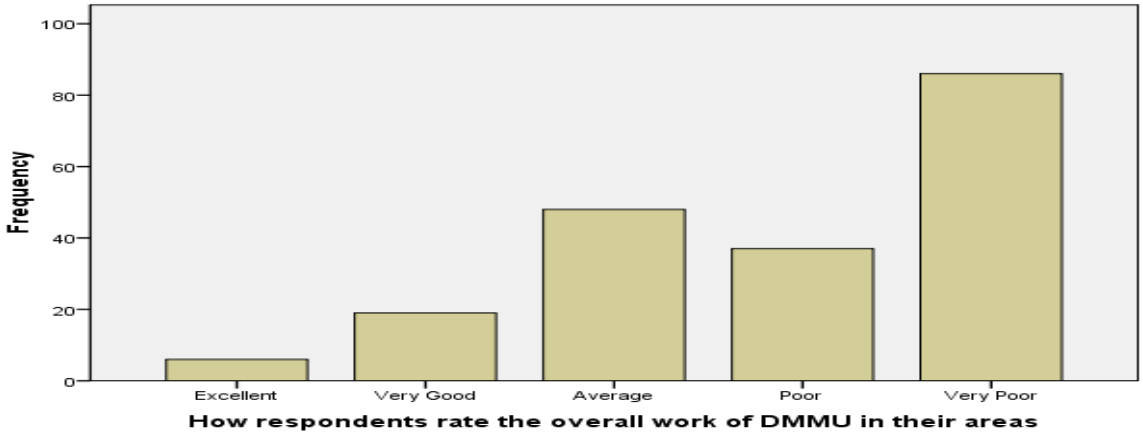

## 5.4. Participation

The respondents who said that they participated in the communication activities of the DMMU were a paltry five per cent, with the remaining 95 per cent saying that they had not.

## 5.5. Overall Rating

When asked to rate the overall performance of the DDMU in their district in so far as disaster management is concerned, as shown in Figure 8, three per cent said the performance was excellent, 10 per cent said it was very good, 25 per cent said it was average, 19 per cent said it was poor while 44 per cent said it was very poor.

*Figure 7: Overall Rating*



# CHAPTER SIX: INTERPRETATION OF FINDINGS

## 6. General

The findings generally indicate that the DMMU's communication strategy was not very effective in the timing of its communication, choice of communication media and personnel, the information it communicated and facilitating participation by the affected victims of the 2008/ 2009 floods in Shangombo in the generation and dissemination of disaster-related information.

### 6.1. Timing/ Forecasting

As shown in the findings, the DMMU communicated most of its information to the people of Shangombo during the flood disaster despite its having received advance disaster warnings from the ZMD. This was a strategic failure in two of its objectives, which are to reduce Zambia's vulnerability to disasters in identified areas of concern (geographical or sectoral) and activating response mechanisms for effective, timely search and rescue operations, in order to save lives and minimise damage to property in times of a crisis (GRZ 2005b, p. 3). It was, therefore, not very helpful for the unit to reach out to the people of Shangombo after their crops and homes had already been destroyed. In short, the unit failed to reduce the vulnerability of the people to the adverse effects of the floods. As a result of the failure to warn the people about the floods in time, 99 per cent of the respondents indicated that they suffered the negative consequences of the disaster. Of the remaining one per cent, some were not personally affected because they were not in the district during the floods while others did not respond to the questions. The DMMU simply failed to be pro-active in its approach to the disaster. As Murakami (2009, pp. 3-4) suggests, the effective exchange of information can be used to help people facing disasters to avoid the adverse effects. This, again, was lacking in the work of the DMMU in Shangombo. The failure was acknowledged by one employee who

intimated to the researcher that politicians seemed to prefer letting the disaster situation deteriorate in order for them to gain political capital from the distribution of relief food.

## 6.2. Media and Personnel

The findings on the media and personnel used by the DMMU to communicate disaster information in Shangombo were that face-to-face conversations and, especially, meetings dominated while the personnel was almost exclusively employees of the DMMU and members of the DDMC and, to a lesser extent, the SDMCs.

In terms of its choice of personnel to communicate on its behalf, the DMMU seemed to have failed strategically in that it almost exclusively relied on its employees, despite having no qualified communicators at all of its organisational levels and this could have been the reason for its total failure to make a positive impact on the people of Shangombo. The unit's choice of communication media was also erroneous. In fact, the Information and Communication section was better off being called an Information Technology (IT) section because it was mainly concerned with the management of IT applications, and this could have been the weakness that failed the organisation.

Social campaigns are supposed to be managed by trained people who understand how to package information and communicate it in a manner that elicits maximum co-operation and good will from the target group (White 2000, pp. 35-51). The fact that the DMMU did not have any trained media practitioner among its staff indicates that the organisation did not realise the significance of having one; that it underestimated the value of effective communication and publicity to its overall disaster management enterprise. Further, the organisation failed to appreciate the importance of the role that imitation plays in shaping social behaviour. "Humans learn behaviour through observation and imitation of those around them, as well as through language (*http://www.voices.yahoo.com*- accessed on 26/03/12). In that regard, it follows that some identified members of the community, with whom others in the community interact on a regular basis, should have been tasked with the duty of communicating and demonstrating appropriate behavioural responses to

hazards and disasters, such as voluntary evacuation from areas threatened by floods. The nearest the unit came to applying the principles of social learning in its work was in the establishment of the Satellite Disaster Management Committees, which were meant to involve some members of the affected communities in managing disasters in their localities. Unfortunately, the researcher found that this institutional element of the disaster management enterprise was not being effectively utilised. It was mostly comprised of cadres of the then ruling party, the Movement for Multi-Party Democracy (MMD); generally unresourced, with no transport or any form of communication equipment; and generally idle, except during the distribution of relief materials when there were material benefits to those involved in the distribution. Due to this general disorganisation of the SDMC, the District Disaster Management Committee (DDMC) and, especially, staff from the DMMU Secretariat tended to get involved with the work at the satellite level. The unfortunate part of this work model is that it is not sustainable. Members of the DDMC and DMMU staff are not resident in the disaster-affected areas and would. Therefore, only spend hours with the affected communities before returning to their stations. That robbed the communities of the needed manpower needed to sustain the strategic momentum and keep the people in a sustained state of mobilisation. The need for social campaigns to be sustained until a positive outcome is realised is implied by Kotler and Roberto (1989, pp. 10-11) when they cite canalisation or the existent of a large number of people within the community who have favourable attitudes, as one of the prerequisites to a successful social campaign. The favourable attitudes referred to can only be cultivated in the masses if there is a sustained effort.

Another critical issue regarding the choice of communication personnel concerns the use of opinion leaders to front social campaigns. In any society, there usually are some people with a great ability to consistently informally influence other individuals in their community towards preferred attitudinal or behavioural modes. The influence is informally exerted because it is not a function of a person's formal social position (Rogers 1983, p. 27). Opinion leaders are, however, shaped by the norms of their social system, even as they are the major contributors towards the structure of their society. In other words, the most effective opinion leaders are those who do not only influence their

community, but are also able to engender the values of that community, which is, in fact, the source of their opinion leadership because their social eminence is determined by the values people who share their community subscribe to in terms of measuring success or moral and ethical standards. One strategic failure of the DMMU was a failure to identify effective opinion leaders within the Shangombo community to front their information campaigns. Some people interviewed were of the view that DMMU staff used the disaster in Shangombo to enrich themselves by monopolising all the disaster management work in the district, including what could easily have been handled by locals, to earn allowances. With these kinds of attitudes among the target population, it becomes obvious why the work of the unit was not a success in the district.

It was a very prevalent idea in Shangombo that the DMMU staff that went to Shangombo in helicopters, wore expensive suits and could hardly communicate in the local language, were there only to use the disaster to make money for themselves. It is, therefore, very clear that the people who were sent by the DMMU were not well-chosen because they were heterophilous with their target audience. According to Rogers (1983, pp. 273-276), people are more inclined to listening to people they can relate with by virtue of having a number off things in common (homophily) and reject those with whom they have very little in common (heterophily). It is clear that the DMMU staff at the secretariat, who did most of the communication with disaster victims, were very homophilous to the people of Shangombo. They were ‘aliens’ who were not directly affected by the flood and, therefore, not thought to be sincerely sensitive to the plight of the disaster victims. This feeling of mistrust on the part of the disaster victims could not have been there if the unit had used the locals more in its communication activities. In its communication activities, the DMMU also failed to make use of the mass media, whether print or broadcast, and to promote the use of information and communication technologies in its work in the district.

According to the findings, the victims of the 2008/2009 flood disaster in Shangombo did not see any information on the disaster in the newspapers or hear it on the radio. The fact that the free movement of the people becomes hindered during floods made it necessary

for the unit to promote the use of telephony in the district. For example, the unit could push for the rolling out of mobile telephone services to all parts of the district, instead of having them only in the Boma and Nangweshi areas. A community radio station could also be set up to broadcast to the community, which has reception for ZNBC Radio One and Radio Christian Voice, although even these stations were off air because the receiver had broken down two years previously. The only means of communication between the DMMU and the Shangombo DDMC was one satellite phone which was in the custody of the District Commissioner.

Although interpersonal and group communication are important and effective means of persuasive communication, the mass media remains the most effective means of reaching a mass audience with information simultaneously. Hence, Kotler and Roberto (1989, p. 11) propose that the mass media should be used to give out information to the masses while interpersonal communication should be reserved for people to clarify on the information they already have.

## 6.3. Messages

According to Kotler and Roberto (1989, p. 8), effective messages are those that "convey real motivating benefits to citizens in an attention-grabbing way". As stated already, almost all the communication between the DMMU and victims of the flood disaster in Shangombo was reactive, not proactive. It told people where they could get shelter, relief food and health services; about how best to survive the aftermath of the disaster, instead of how to avoid being caught up in disaster. This made the messages rather not very helpful, a fact attested to by most of the respondents, who expressed a desire to be given further information on how to best conduct themselves in the event that flooding occurred again in the future.

## 6.4. Participation

In terms of participation in the generation and dissemination of disaster related information, the findings indicate that only five per cent of respondents took part in the

exercise (see figure 7). This was another major weakness of the communication strategy of the DMMU in Shangombo District.

According to Anyaegbunam et al. (2004, p.16) communication is an interactive process characterised by the exchange of ideas, information, points of view and experiences between persons and groups. In that regard, the fact that only five per cent of the victims of the 2008/ 2009 flood disaster in Shangombo participated in the generation and dissemination of information hindered the necessary exchange of ideas, which would have enriched the DMMU's understanding of the problems the victims faced and the most appropriate solutions to those problems. In communication, the sharing of information is paramount and people are considered important sources of information and ideas worth listening to. As such, the passiveness of either of the stakeholders in the communication process should be discouraged. It takes the active mental cooperation of everyone involved to reach the common awareness and understanding that is essential in the success of any interactive process (Anyaegbunam et al. 2004, p. 16). The DMMU also failed to benefit from the local knowledge of the people of Shangombo regarding surviving disasters accumulated by the community for many years during which they have faced floods. The inclusiveness of the communication process implied by the term 'participation' is not one in which the community members are merely informed, manipulated, placated or consulted, as is the case in 'pseudo-participation.' Rather, responsibilities are delegated to them and they are empowered to play a full part in the cycle of a project as partners. That is what is called 'genuine participation' (White et al. 1994, p. 17). The failure by the DMMU to more actively involve members of the local community in its activities created an atmosphere in which the community could not fully appreciate and take ownership of programmes intended to benefit them. Without this domestication of programmes and the implied good will, it is not possible that any effective implementation could have been done.

## 6.5. Overall Appraisal

The communication strategy of the DMMU failed in a number of key aspects and led to an overall failure of its work in Shangombo District, with 63 per cent of respondents

rating its performance between poor and very poor (see Figure 8). From a communication point of view, part of the success of a programme should be judged on the extent to which the target beneficiaries appreciate and are willing to consolidate the benefits they accrue from it. A good and well implemented programme might still be considered a flop if its benefits are not clearly perceived and appreciated by the target beneficiaries. Therefore, the actual work done by the DMMU in Shangombo District could have been immense, but the bottom line is that the target beneficiaries did not appreciate it and that was, from a communication perspective, a failure.

# CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

## 7. General

This chapter concludes the report and suggests some ways in which the DMMU might make its communication activities more effective in the future. It also suggests areas for further research.

### 7.1. Conclusion

Effective communication strategies are essential to the success of any project, including projects in the sphere of disaster management. In its work in Shangombo District, the DMMU needed to communicate effectively with the affected communities during the 2008/ 2009 flood disaster. Unfortunately, the unit's communication strategy had weaknesses relating to the timing of its information, the choice of communication media and personnel, the communication of meaningful information that could have helped the affected community to best handle the hazards that exist in their communities and the facilitation of the meaningful participation of members of the target communities in the generation and dissemination of information related to disaster management.

### 7.2. Recommendations

Some weaknesses have been outlined in the communication strategy of the DMMU in Shangombo District. To better conduct its work from a communication point of view, the DMMU could do the following:

- Alert potential victims before hazards become disasters.
- effectively use both interpersonal and mass media at various stages of its communication activities. The over-reliance on interpersonal and group

communication limits the unit's ability to reach a much wider and scattered audience, which is usually difficult to reach physically during floods when roads often become impassable. The adoption of broadcast and electronic media should be spearheaded by the unit.

- work in partnership with opinion leaders, who are able to exert a meaningful degree of influence on the target audience and elicit maximum good will and collaboration from the community, some of whom must be some influential members of the target communities.

- establish an effective public relations section staffed with well trained communication experts.

- strengthen and depoliticise the SDMC as the structure that has a first-hand understanding of the needs of disaster victims.

- communicate proactive messages that help the people know how best to live with the hazards in their communities and how to avoid falling victim to disasters when they occur.

- promote genuine participation of the target communication in the generation and communication of information on disasters that face them and how they can best handle the resultant challenges.

## 7.3. Further Research

This research was mainly concerned with assessing the effectiveness of the communication strategies of the DMMU in Shangombo District during the 2008/ 2009 flood disaster. Two aspects that interested the researcher, but could not be deeply investigated by him were the effects of political affiliation on people's participation in Government-sponsored programmes, and whether there was a relationship between

literacy levels and people's vulnerability to disasters. Future research could target these areas.

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# APPENDIX 1: QUESTIONNAIRE

## Informed consent

I hereby affirm that I have been assured that the information provided by me will not be used in any way that is injurious to me, my community or the country at large. I also do hereby affirm that I have voluntarily and, with full understanding of what I am doing, decided, out of my own volition, to provide such appropriate information as will be sought by the researcher.

Sign:..... Date:.....

1.0 General information

1. Sex 1. Male [ ] 2 Female [ ]

2. Age 1. 18 – 25 years [ ] 2. 26 – 35 years [ ]

3 46 – Above [ ]

3. Marital status: 1. Single [ ] 2. Married [ ]

3. Divorced [ ] 4. Widow/ widower [ ]

4. Educational level attained: 1. Primary [ ] 2. Basic [ ]

3. Secondary [ ] 4. College [ ]

5. University [ ] 6. Post graduate [ ]

7. None applicable [ ]

5. Religion: 1. Catholic [ ] 2. Jehovah's Witnesses [ ]

3. Pentecostal [ ] 4. Other Protestant [ ]

5. Non Christian specify) ……

6. What do you do for a living? 1. Formally employed [ ] 2. Informally employed [ ]

3. Unemployed [ ] 4. Dependent [ ]

7. Political inclination/membership: 1. MMD [ ] 2. UNIP [ ] 3. FDD [ ]

4. UPND [ ] 5. PF [ ] 6. ULP [ ] 7. Other (specify) ……

8. What language do you mostly use for communication? 1. Lozi [ ] 2. English [ ]

2. Other language (specify).....

2.0 Knowledge of DMMU's work

1. Have you been affected by heavy flooding before? 1. Yes [ ] 2. No [ ]

2. Do you know what DMMU is? 1. Yes [ ] 2. No [ ]

3. How did you first know about the DMMU? 1. Radio [ ] 2. Television [ ]

3. Newspaper [ ] 4. Heard from someone [ ]

5. Other (specify) [ ] 6. Do not know [ ]

7. Peers/friends [ ] 8. Family member [ ]

9. Other means (specify) .....

4. How long have you known about DMMU? 1. Less than 1 year [ ] 2. Between 1-3 years [ ]

3. Between 4-6 years [ ] 4. Between 7-9 years [ ]

5. Above 19 years [ ] 6. Not sure [ ]

5. What do you understand is the role of the DMMU? .....

5. Who do you think should help people who are in disaster situations?

1. Government [ ] 2. NGOs [ ]. 3. Donors [ ]. 4. The community [ ]. 5. No one [ ].

3.0 Communication on Floods

1. Who communicated information on the 2008/ 2009 floods in your area?

1. The Satellite Disaster Management Committee [ ]. 2. The District Disaster Management Committee [ ].

3. The Provincial Disaster Management Committee [ ]. 4. The Disaster Management and Mitigation Unit [ ].

5. Others (specify).....

2. How was information on floods done in your area communicated? Tick all applicable.

1. Community meetings [ ]. 2. Posters [ ]. 3. Door-to-door notifications [ ].

4. Newspaper(s) [ ]. 5. Radio [ ]. 6. Television [ ].

7. It is not done [ ]. 8. Other (specify) ……

3. In what medium would you prefer to receive information if there is another flood?

1. Community meetings [ ]. 2. Posters [ ]. 3. Door-to-door notifications [ ].

4. Newspaper(s) [ ]. 5. Television [ ]. 6. Radio [ ]. 7. Other (specify) ……

4. Do you have access to any of the communication media above?

1. Yes [ ] (list all applicable)..... No. [ ]

5. How many times did you receive information on floods on/ in any of the media above in 2008/ 009?

1. Very often [ ]. 2. Often [ ]. 3. Rarely [ ]. 4. Never [ ].

6. Do you agree that information on floods was communicated at the right time?

1. Strongly agree [ ]. 2. Agree [ ]. 3. I don't know [ ]. 4. Disagree [ ]. 5. Strongly disagree [ ].

7. Are you satisfied with the amount of information you receive concerning the use of CDF in your constituency?

Very satisfied [ ] /...../...../...../ very unsatisfied [ ].

8. Would you like to receive more information on floods in your area? 1. Yes [ ]. 2. No [ ].

9. Were you involved in the preparation and communication of messages about the 2008/ 2009 floods?

1. Yes [ ]. 2. No [ ].

10. Were some people in your area involved in the preparation and communication of messages about the 2008/ 2009 floods? 1. Yes [ ] 2. No [ ]

11. Would you like some people in your area or yourself to be involved in the preparation and communication of information about floods if flooding occurs again? 1. Yes [ ]. 2. No [ ]

12. Are there any relief projects that you are aware of that are being financed by DMMU 1. Yes [ ] 2. No [ ]

13. Did you receive help from DMMU during the floods of 2008/ 2009? 1. Yes [ ]. 2. No [ ]

14. If you received help, what kind? .....

15. Do you know who has received help from DMMU during the 2008/ 2009 floods? 1.Yes [ ]. 2. No [ ].

16. If you know someone who received help, what kind of help did they receive? .....

17. Would you wish to receive assistance from DMMU in the future if floods occurred again? 1. Yes [ ]. 2. No [ ]

18. Do you think that the help DMMU gave to flood victims in 2008/ 2009 was adequate? 1. Yes [ ]. 2. No [ ]

19. Overall, how do you rate the work of DMMU in your area?

1. Very good [ ]. 2. Good [ ]. 3. Average [ ]. 4. Poor [ ]. 5. Very poor [ ].

# Thank you/ Niitumezi

# APPENDIX 2: GUIDE FOR IN-DEPTH INTERVIEWS

A. DMMU staff (communication department)/ community leaders

1 Demographic, psychographic and geographical information:

1.1.0 Demographic information

1.1.1 Age composition or distribution, gender distribution.

1.1.2 Residence(s), type of houses available in the area.

1.1.3 Language commonly used in the community.

1.2.0 Psychographics

1.2.1 Cultural values, beliefs and attitudes of the people in the community.

1.2.2 Radio and television stations and other media products accessed by the communities in the area of study.

1.2.3 Peoples' general reaction and response to communication strategies of DMMU.

1.3.0 Geographical characteristics

1.3.1 Infrastructure: road network and communication systems.

1.3.3 Physical features e.g. mountains or hills, general landscape and soil types.

1.4.0 Historical characteristics

1.4.1 Nature and make up of the existing audience.

1.4.2 Family types and composition, average number of children, dependants etc.

1.4.3 Traditional ceremonies, other important celebrations etc.

2.0 Interests, needs, concerns of the audience

2.1 Radio and TV programmes that interest people most in the area of study.

2.2 Most read newspaper.

2.3 Most liked community programmes.

2.4 Programmes and adverts aired on radio and TV over about the 2008/ 2009 floods in Shangombo.

2.5 Response of community, if any, to these programmes.

2.6 Effectiveness of these awareness campaigns.

3.0 Constraints and successes of DMMU communication strategies about floods in Shangombo

3.1 Major problems local communities faced regarding access to information about floods during the 2008/ 2009 floods.

3.2 How the community thinks this problem should be tackled.

3.3. Major problems encountered by DMMU in collection and dissemination of information about the 2008/ 2009 floods in Shangombo.

3.4. Successes scored by DMMU in collection and dissemination of information on the 2008/ 2009 floods in Shangombo.

4.0 General information

4.1 People's suggestions and comments on collection and dissemination of information about 2008/ 2009 floods in Shangombo.

4.2 Future prospects on communicating disasters.