

# **Communication Network in Managing Natural Disasters in Zambia: Lessons and Challenges**

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## Declaration

I declare that this Practical Attachment Report has not been submitted for a Degree in this or any other University.

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## **Dedication**

This work is dedicated to my dear wife Namwinga and our children, Lusubilo, Masutano, Mwene, Mila, Nganile and Muchinga

## **Abstract**

This report is a product of an attachment to the Disaster Management and Mitigation Unit (DMMU) in the Office of the Vice President. The role of the DMMU is to coordinate disaster management in Zambia. This exercise was prompted by the absence of a clear communication network for effective coordination of disaster response. It was therefore necessary to look at the communication network in managing natural disasters. The methodology used to collect data was in-depth interviews. This involved 20 respondents. The interviews lasted for more than two hours on each person. Others took more than one day of contact. Information was also extracted from secondary sources. The attachee was also involved in performing administrative and operational activities of the DMMU. The findings are that, there is no formalised communication network. Organisations involved in disaster management tend to work independently of the DMMU. This has affected effective cooperation, integration and coordination of disaster management activities. It has been concluded that Zambia has not developed an effective communication network. An effective disaster management structure should be developed based on wide consultations and backed by appropriate communication policies and legal provisions.

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If there are any omissions, errors and ideas that you do not agree with, no blame should be apportioned to the people and organisations mentioned. I shoulder the responsibility.

SSM

The University of Zambia

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## Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
CBOH	Central Board of Health
CDMC	Cranfield Disaster Management Centre
COMESA	Common Market for Eastern and Southern Africa
CDM	Centre for Development and Management
CPU	Contingency Planning Unit
CSO	Central Statistics Office
DA	District Administrator
DDMC	District Disaster Management Committee
DMMU	Disaster Management and Mitigation Unit
DMTC	Disaster Management Training Centre
ECZ	Environmental Council of Zambia
EWS	Early Warning System
FAO	Food and Agriculture Organisation
FEWS	Famine Early Warning System
FHANIS	Food Security, Health and Nutrition Information System
FRA	Food Reserve Agency
GRZ	Government of the Republic of Zambia
HIV	Human Immune Virus
IDNDR	International Decade for National Disaster Reduction
IFRCRCS	International Federation of Red Cross and Red Crescent Society
MAFF	Ministry of Agriculture, Food and Fisheries
MCD	Master of Communication for Development
MMD	Movement for Multiparty Democracy
MOH	Ministry of Health
NC	National Coordinator
NCMDS	National College for Management and Development Studies

NEWU	National Early Warning Unit
NDMC	National Disaster Management Committee
NDMU	National Disaster Management Unit
NDRC	National Disaster Relief Committee
NGOs	Non-Governmental Organisations
OCHA	Office for the Coordination of Humanitarian Affairs.
OVP	Office of the Vice President
PAID-ESA	Pan-African Institute for Development for Eastern and Southern Africa.
PAM	Programme for the Prevention of Malnutrition
PAR	Practical Attachment Report
PDMC	Provincial Disaster Management Committee
SADC	Southern Africa Development Community
TAZARA	Tanzania Zambia Railways Authority
UN	United Nations
UNDP	United Nations Development Programme
UNDRO	United Nations Disaster Relief Organisation (now OCHA)
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
UNZA	University of Zambia
UNIP	United National Independence Party
VAM	Vulnerability Assessment and Mapping
WFP	World Food Programme
WHO	World Health Organisation
WVZ	World Vision Zambia
ZRCS	Zambia Red Cross Society
ZRA	Zambezi River Authority



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# **CHAPTER 1**

## **Background**

### **1.0 Geopolitical Profile of Zambia**

Zambia was formerly known as Northern Rhodesia and was a colony of Britain from 1890 to 1964. It lies on the Central African plateau between 1,000 and 1,600 metres above sea level. Zambia covers a land area of 752,614 square kilometres and is located between latitudes 8 degrees and 18 degrees south and longitude 22 degrees and 34 degrees east.

Zambia shares borders with Malawi and Mozambique in the east, Zimbabwe and Botswana in the south, Namibia in the south-west, Angola in the west, the Democratic Republic of Congo in the north and Tanzania in the north-east as shown in Figure 1.

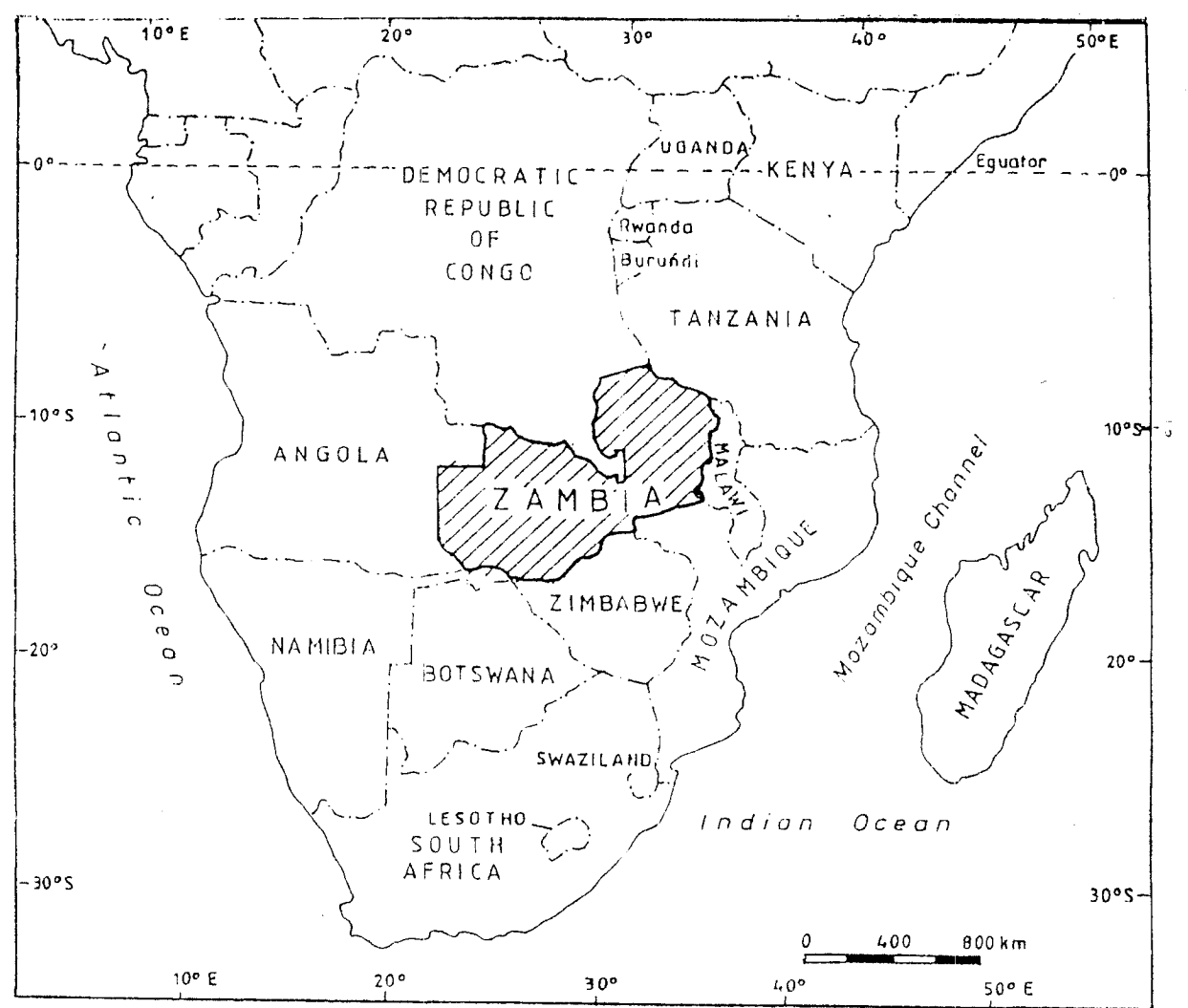
Zambia is a landlocked country. It has no sea port of its own. Access to the sea for her export and import is through other countries. The port of Dar-es-Salaam in Tanzania on the Indian Ocean is the main one used. This was made possible following the construction of the 1,860 kilometre Tanzania Zambia Railway line (TAZARA). Work on this railway started in 1973 and was completed in 1975. The export and import of goods is also handled by the South African ports which include Durban, Port Elizabeth, East London and Cape Town. The port of Beira in Mozambique on the Indian Ocean and Lobito bay in Angola on the Atlantic Ocean are other alternative ports for Zambia's exports and imports. Civil wars in Mozambique and Angola have caused the partial or total abandonment of these sea ports.

The geopolitical boundaries of Zambia came as a result of the "scramble for Africa" of the 19<sup>th</sup> century. This was purely a political and economic greed by some European nations which led to the creation of African states. Owning

colonies became a status symbol. The European colonialists usurped both the political and economic sovereignty of Africa. There was no due regard to the political, economic, cultural and technological development of the newly created states. Rodney (1976:223) summarizes the activities of the colonialists as a one-armed bandit. They stole from the abundant natural resources of Africa in order to develop their own countries.

**Figure 1:**

*Zambia's Neighbours in the Southern Africa Development Community (SADC)*



## **1.1 Climate**

Zambia has a tropical climate characterized by three seasons:

- (i) Cool and dry winter season from May to August.
- (ii) Warm and wet season from November to April.
- (iii) Hot and dry season during September and October.

The highest temperatures are recorded in the lower lying Luangwa Valley during the hot and dry season. Rainfall is unevenly spread with Northern, Luapula, Copperbelt and North-Western Provinces receiving between 1,100 millimetres to 1,400 millimetres. There is a systematic decrease towards the south and east recording an annual average of 600 millimetres and 1,100 millimetres. (CSO, 1989/90:2)

## **1.2 Population**

Zambia has one of the highest population growth rates in the world. The 1963, 1980 and 1990 national census reported a population of 3.5, 5.7 and 7.8 million people respectively. This implies a growth rate of 2.5% between 1963-1969, 3.1% between 1969-1980 and 3.2% between 1980-1990 per annum. The high rate during this period was associated with the high fertility rate and declining mortality. The crude death rate dropped from 19.7 per 1,000 in 1969 to 14.8 per 1000 in 1980. Life expectancy rose from 41.8 years for males and 45 years for females in 1969 to 50.4 years for males to 52.5 years for females in 1980 (CSO, 1989/1990:4). If fertility remains high and mortality continues to decline, population is estimated to reach 12 million people by the year 2001. The growth of population leads to more people living and working in unsafe areas. It also means that an increasing number of people will be competing for limited resources such as land for farming and settlement. This state of affairs leads to poverty. Poverty has been acknowledged as the most important single factor that leads to people being vulnerable to disasters. (UNDP/UNDRO, 1992:6)

### **1.3 Rivers and Lakes**

Zambia is rich in water resources. The total surface water coverage is 45,000 kilometres holding about 60 billion cubic metres of water. The total ground water storage capacity is in excess of 1,000 billion cubic metres. (GRZ/UNDP, 1995:1)

The main rivers are Kafue in the central parts of the country, Zambezi in the west and south, Chambeshi and Luapula in the north and Lwangwa in the north-east. These rivers are economic and social assets. Kafue and Zambezi are particularly important for powering hydro-electric power stations at Kafue Gorge and Kariba Dam respectively. Significant settlements are also along these rivers providing a means and source of livelihoods to many people and their livestock.

There are five main lakes namely Bangweulu, Mweru, Mweru-Wantipa and the southern end of Lake Tanganyika found in the north of Zambia. Lake Kariba in the south is a human-made lake, which lies some 420 kilometres downstream from Victoria Falls on the Zambezi river. Work on the Kariba Dam started in 1956 and the first phase was completed in 1960 (O'Connor, 1971:113). The dam has a full supply level of 488.5 metres and a lower level supply of 475.5 metres of water for the purpose of generating electricity.

Although Zambia has adequate surface and ground water, the country faces lean years due to drought. Lack of means to extract ground water also leads to water shortage for domestic and agricultural use. There is also no deliberate policy to crop water through the construction of dams. These are challenges, which the Disaster Management and Mitigation Unit (DMMU) should explore to avert the adverse impact of drought.



## 1.4 Natural Disasters and Hazards

A disaster is a serious disruption of the functioning of a society, causing widespread or localized human, material or environmental losses which exceed the ability of the affected society to cope using only its own resources. Disasters have been around since well before recorded history. Efforts have been made to mitigate against them, but real solutions are far from being realized. Disasters by and large reflect how human beings organize their living and interact with the environment.

Disasters occur when a hazard meets vulnerable situations. A hazard is defined as a rare or extreme event in the natural or human-made environment that adversely affects human life, property or activity to the extent of causing a disaster. Drought, floods, epidemics, pest infestation, environmental degradation etc. are not disasters in and by themselves without coming into contact with vulnerable situations. As Walker (1989:3) puts it, without vulnerable people there can be no disaster. A disaster is the interface between an extreme physical event and a vulnerable human population. The mathematical equation of disaster is:

$$\text{Hazard} + \text{Vulnerability} = \text{Disaster}$$
$$(H + V = D)$$

Natural disasters are events, which result from the occurrence of natural phenomenon (hazard) which seriously disrupts the functioning of society causing widespread human, material or environmental losses. Natural disasters are generally caused by changes in the weather patterns such as floods, drought, pest infestations and cyclones. They are also caused by ecological and geological changes such as earthquakes and volcanic eruption.

It is difficult for human beings to control the development of natural disasters. They can, however, control their relationship to nature thus controlling their

exposure to hazards. Human beings can, for example, avoid settling in flood-prone areas or areas prone to earthquakes. They can also carry out mitigation measures in order to develop resilient communities.

It is a misconception to associate the causative factors of natural disasters to natural phenomena only. Much of what happens in the natural is influenced by human activity or inactivity. An increase in flooding for example, can be linked to the escalating rate of deforestation. Global warming is another phenomena which is responsible for the changing in weather patterns, thus causing disasters like floods, death of living things, drought, diseases and deserts. (UNDP/DHA, 1997:96)

#### 1.4.1 Characteristics of Natural Disasters

The following are the common characteristics of natural disasters:

- (a) they are triggered by natural hazards, which meet vulnerable situations,
- (b) they have negative social and economic impact. They affect social relations and people's source of income and livelihoods,
- (c) they often outstrip the ability of the affected communities to adequately deal with the problem themselves without resorting to external sources,
- (d) their occurrence can have long-term effects particularly on land reducing its productivity. The condition could, be permanent if there are no rehabilitation or restoration measures, and
- (e) they can be a rapid or slow-onset.

#### 1.4.2 Zambia's Disaster Threat

The problems caused by natural disasters can best be understood from a social, cultural, political and economic context. The first one being that people particularly in rural areas tend to live on the same traditional land where their

fore-parents lived. The occurrence of disasters like drought and floods are of little consequence to their living. The Luano Valley in Central Province and Gwembe Valley in Southern Province are drought-prone areas and yet people have lived for decades in such places. People develop strong attachment to their traditional land and become victims of disasters when they occur.

The second factor to consider is poverty. Poverty generally makes people vulnerable to disasters. The poor occupy unsafe settlements like floodplains, they fail to build strong houses that can withstand strong winds and storms and they are also easy victims of famine. When a disaster occurs the poor normally lose their source of livelihood like livestock and have no savings to turn to.

Thirdly, governments tend to deal with disasters purely on *ad-hoc* arrangements. Disasters are regarded as misfortunes which are attended to when they occur and forgotten thereafter. As long as disaster management is not incorporated in development planning, the impact will continue being severe. Communication is important in order to create disaster awareness through a deliberately designed communication network.

#### 1.4.3 Natural Distasters in Zambia

The following are the main natural disasters in Zambia.

##### (a) Drought

Drought is associated with shortage of water or discrepancies between supply and demand for water. Of all the natural disasters, drought can have the greatest potential impact and affects the largest number of people. Drought has adverse effects on the economy, environment and social conditions. It renders land useless to support crop production and animal life.

The immediate cause of drought is rainfall deficit. It has also several underlying causes such as El Nino (incursion of warm surface waters into the normally colder waters of South America Pacific), resulting in the increase in the atmosphere of carbon dioxide, green house gasses and human-induced changes associated with poor land use. It is the shortage of useful water in the soil, in the rivers or reservoirs which creates the hazard which may result into a disaster (Smith, 1991:247). This means that deficit in rainfall does not necessarily lead to drought. Four main types of drought can be distinguished: meteorological, hydrological, agricultural and famine droughts.

1. Meteorological drought

Meteorological drought is associated with shortage of precipitation. It is a long and continuous period over a wide area during which rainfall is below the average.

2. Hydrological drought

Hydrological drought mainly affects water resources and water supply. It has to do with supply and demand for both domestic and industrial water. Hydrological drought results from prolonged meteorological drought. There is a marked decrease of surface water levels, decrease of water in lakes, rivers, reservoirs and ground water.

3. Agricultural drought

Agricultural drought mainly affects crop production. It is inadequate water and/or moisture in the soil to sustain the growth of crops. Agricultural drought varies from crop to crop. Water or moisture requirement is not the same for all crops. Rice for example, would require more water than millet or sorghum.

#### 4. Famine drought

Famine drought is a protracted shortage of food which results in death from starvation. Famine drought mostly affects subsistence farmers who depend on rainfed agriculture. The mitigation for this form of drought is crop diversification into drought resistant food crops like cassava, sorghum and millet.

Drought periods causing acute water and food shortages have occurred in 1946/47, 1965/66, 1972/73, 1982/83, 1986/87, 1991/92, 1993/94 and 1994/95. The 1991/92 drought was the most widespread affecting the entire Southern Africa. According to the GRZ/UNDP Project Document (1997:3), over six million people in Zambia received food aid due to food shortages arising from the drought.

#### (b) Floods

Floods occur when surface water covers land that is normally dry or when water overflows normal confinements which may include river banks and dams. Floods become disasters when human settlements get flooded or when they result into the destruction of crops, social and economic infrastructure. Floods, be they flash floods, river floods or coastal floods, are usually caused by intense rainfall.

Floods are a regular occurrence in Zambia. In 1997, 2,500 people were left homeless due to torrential rains in Mbabala Islands in Luapula Province. Similar flooding of disastrous proportion has occurred in different parts of the country.

Flooding also occurs in Western Province on the Barotse plains. These floods do not usually cause disasters but provide fishing and agricultural

opportunities for the people of Western Province. The plain receives fertile alluvium brought about by floods. This enables people to grow rice, maize, sorghum, pumpkins and other crops. The floods also provide an opportunity for a very rich Lozi culture, the *Kuomboka* Ceremony. *Kuomboka* means to get out of water. This is a time when the *Litunga* (King) leaves the flooding Lialui palace in the *Nalikwanda* barge to Limulunga on the upland. *Kuomboka* has become a cultural unifying factor of the people of Western Province. The picturesque procession is a beauty to behold and attracts people from within, near and far. The Zambezi floods on the Borotse plains have been used for developmental purposes. Just like the Nile floods are a blessing to the people of Sudan, Egypt and Ethiopia, the Zambezi floods are a life-giving source to the people of Western Province.

(c) Epidemics

An epidemic is commonly defined as the occurrence in a community or area of cases of a disease that is clearly in excess of what is expected. The occurrence of the disease is usually large or unexpected for a given time, period or place. Epidemics are usually caused by unsanitary conditions and ecological changes that favour the breeding of vectors. Epidemics cause illness and death, social and political disruption, economic loss and increase trauma in emergency settlements e.g. refugee camps.

Diseases of epidemic proportion can be common e.g. cholera, HIV/AIDS and malaria, or they can be occasional e.g. measles, or they can be rare like typhoid and plague. Cholera has become a seasonal disease in Zambia. Every rainy season tends to record some outbreak. In 1993 Kitwe district recorded 500 cholera victims. Between 1989 and 1992 about 1,800 people died of cholera. Cholera is a disease that strives in

filth and its containment lies in social campaigns to create awareness. HIV/AIDS is another disaster of pandemic proportions. In Zambia it is estimated that out of every five adults one is infected by HIV virus which causes AIDS. It is however, unfortunate that both cholera and HIV/AIDS are regarded as mere health problems and not disasters to merit emergency response from the DMMU.

(d) Pest Infections

A pest may be defined as any animal or plant causing harm or damage to people, their animals, crops or possession. Pest outbreaks are generally caused by weather conditions and ecological factors which favour the breeding and influence the outbreak. They are also caused by mono-culture of crops, introduction of pest species, and migration of pests. Pests include grasshoppers, ants, locusts, armyworms, stockbores, tsetse flies, rodents, monkeys and sea weeds like the water hyacinth.

Different parts of Zambia suffer these pest infestations. In September, 2000, Chilubi Island experienced a rare pest disaster when rats in their thousands invaded cassava, maize and other food crops. The District Administrator (DA) for the district had to appeal to the DMMU for food aid to avert starvation. Another pest of great concern in Zambia is the water hyacinth popularly known as Kafue weed. This weed has blocked large tracks of the river system making river navigation difficult, choking fish and other aquatic living things and threatening hydroelectric power generation at Kafue Gorge. The water hyacinth has also put pressure on the railway and road bridges on the Kafue river. As can be noted from the effects of the water hyacinth, it is of economic, social and political concern. It is not surprising that the office of the Vice President in 1999 took over the coordination of efforts to deal with the water hyacinth.

## (e) Environmental Degradation

Environmental degradation is a problem in Zambia which requires attention and appropriate action to protect the environment. Although environmental degradation has social causative factors like poor land use, overgrazing and pollution, the process taken for land to be degraded is compounded by natural phenomena like drought, floods, and changes in weather patterns thus becoming a natural disaster.

Environmental degradation in Zambia is mostly land degradation caused by drought and overgrazing. In Lusitu area of Southern Province, the land is largely bare of vegetation, save for isolated patches of agricultural land. Other forms of environmental degradation include water pollution caused by industrial pollutants, domestic and human waste. When these are deposited in water they make it unsafe to drink. Deforestation is another environmental problem in Zambia. Trees regulate our atmosphere, ecosystems and weather systems. They provide food, medicine, firewood and habitation for living creatures. Deforestation is mainly caused by the need for firewood, timber and clearing for agricultural land.

### **1.5 Institutional Framework: Roles and Responsibilities**

Disaster management in Zambia is not confined to government alone. Various organizations are involved. They include Non-Government Organisations (NGOs), line ministries, United Nations systems as well as private and public organizations. These play important roles ranging from policy formulation at organizational level, disaster response, mitigation and preparedness. They also provide both human and financial resources. The role of the government is to establish an overall policy framework which should give guidance on how disasters should be managed. Government also coordinates and facilitates resource mobilization. In Zambia, this responsibility is vested in and carried out



by the Office of the Vice President (OVP) through the DMMU. In the period between 1975 and 1991 responsibility for the coordination of the response to emergencies and disasters rested with the Contingency Planning Unit (CPU) which was based in the Prime Minister's Office.

The CPU was an *ad-hoc* inter-ministerial secretariat bringing together key identified ministries depending on the nature of the disaster. Under this arrangement, government was responsible for coordination and mobilization of resources, and delivery of relief, using local structures of the United National Independence Party (UNIP) which was then the sole political party. The above arrangements were changed with the re-introduction of political pluralism and the coming into power of the Movement for Multiparty Democracy (MMD). The post of Prime Minister was abolished and was replaced with that of the Vice President. The CPU was consequently scrapped.

During the 1990s the government of the MMD was faced with major emergencies of food shortage due to drought situations of 1989/90, 1991/92, 1993/94 rainy seasons. Since there was no longer any formal disaster response structure, the new government also resorted to using *ad-hoc* sectoral approaches. The capacity of the Government of the Republic of Zambia (GRZ) to organize and deliver large quantities of relief materials was extremely limited. Line ministries and donor agencies were responsible for managing response purely on *ad-hoc* arrangements. Subsequently, various food relief organizations were established and participated in alleviating the adverse effects of drought.

In order to manage the relief effort, the Programme for the Prevention of Malnutrition (PPM) was set up. This was regarded as a network that would bring together leading NGOs in order to prevent any increase in the levels of malnutrition among the vulnerable groups, particularly children, in disaster areas and to maintain the viability of rural communities by providing food assistance during disaster periods.

The PPM was designed to be a partnership between government, donors and NGOs. In order to provide technical and secretarial support for this PPM communication network, the Programme Against Malnutrition (PAM) was established in 1992. The PAM was formed as a quasi-government institution. In 1996 PAM transformed itself into an NGO upon realizing that the creation of the DMMU would usurp its powers leading to its eventual demise.

#### 1.5.1 Disaster Management Communication

The structure for disaster management communication is composed of three levels as shown in Figure 3. The structure is designed to provide a communication network from cabinet to the community. This is done on the understanding that communication is key in disaster management and that people at various levels should be involved. The structure also makes provision for the participation of various organizations through the establishment of disaster management committees which draw membership from various stakeholders.

The people who serve on these various committees provide voluntary services. They are not on full-time employment and do not get a salary or wage for serving on the committees. The only permanent workers are those employed by the DMMU who work at the national and provincial levels. At district level, the District Disaster Management Unit is serviced by voluntary workers.

According to McBride (1980:254) every country should develop its communication patterns in accordance with its own conditions, needs and traditions thus strengthening its integrity, independence and self-reliance. The implication of this statement is that a structure developed for disaster management should be receptive. It should be such that people as individuals and organizations understand the pattern of communication well and should be able to use it. A communication policy becomes inevitable. The policy should

also be conceived in the context of the country's social, economic, cultural, political and technological realities.

The role of the United Nations (UN) agencies in this structure should be seen as supportive. The United Nations Development Programme (UNDP), for example is concerned with development-related aspects of disaster risks and occurrences and provides technical, material and funding in order to achieve long-term risk-reduction. Other major UN organizations include, Food Agriculture Organisation (FAO) for promotion of local food production and food security, Office for the Coordination of Humanitarian Affairs (OCHA) for the mobilization of humanitarian emergency relief aid, World Food Programme (WFP) for the provision of food aid to targeted vulnerable groups, the United Nations High Commission for Refugees (UNHCR) responsible for coordinating the response of UN systems to refugee emergency, World Health Organisation (WHO) which is concerned with preventive and curative health care, and United Nations Children's Fund (UNICEF) for the well-being of children and women during disasters.

### 1.5.2 The Disaster Management and Mitigation Unit

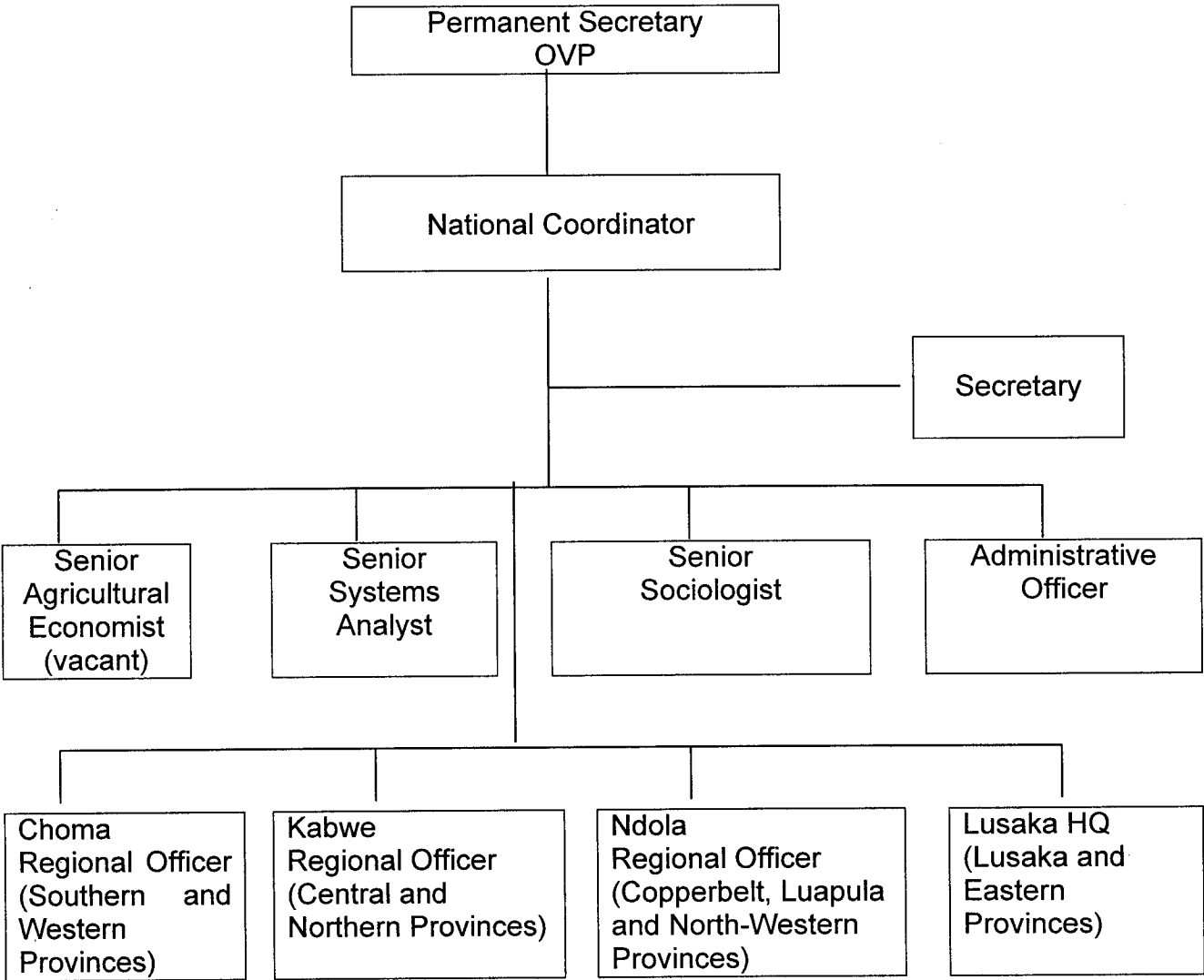
The DMMU was established in 1997 within the office of the Vice President. It came into being to fulfil one of the main functions spelt out in the mission statement of the OVP which, according to the National Coordinator is:

To coordinate and monitor the implementation of national disaster policies, facilitate the running of parliament, resettlement of the unemployed and enhancement of democratic governance.

The DMMU is a key department in the OVP which was established in order to coordinate disaster management and minimize loss of life, damage to property and destruction of the environment. The establishment of the DMMU was a clear indication of the political will to create an organized response mechanism to

disasters. The DMMU is headed by a National Coordinator (NC) who reports to the Permanent Secretary in the Office of the Vice President. The NC is supported by technical staff as shown in Figure 2.

**Figure 2.**  
*Disaster Management and Mitigation Unit Organization Chart.*

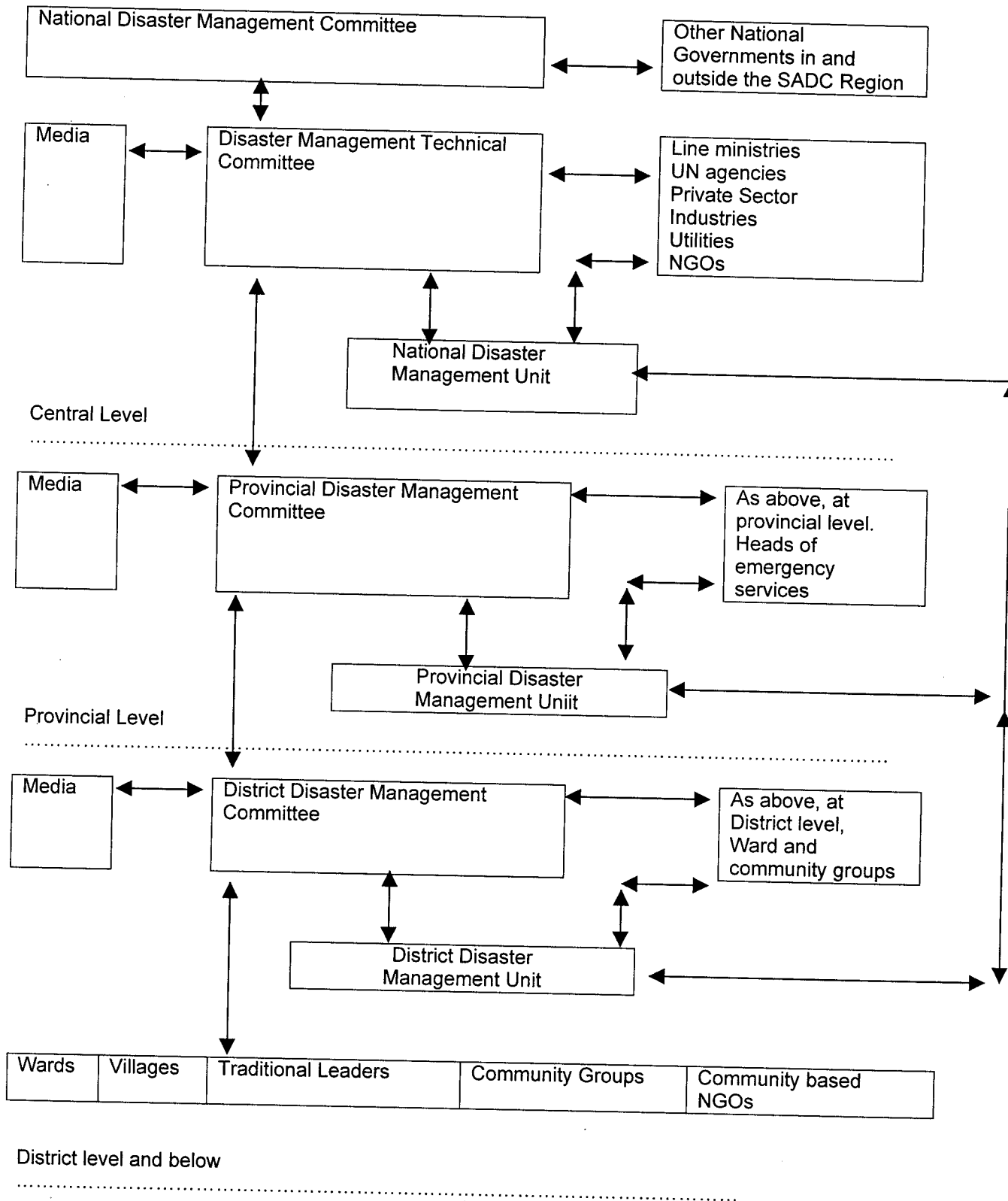


1.5.2.1 Functions of the DMMU

The following is a list of the functions of the DMMU.

- (a) DMMU provides technical support and serves as a secretariat to various disaster management committees.
- (b) Deals with disasters such as drought, floods, epidemics, refugee influx, industrial accidents, fires, pest infestations, and transport accidents.
- (c) Advises government on disaster policy and implements programmes arising from such policies.
- (d) Coordinates, monitors and evaluates disaster management programmes.
- (e) Handles risk and vulnerability assessment including hazard mapping.
- (f) Mobilises resources from local and international sources.
- (g) Manages information system. This includes inventory of resources, geographical information, early warning information, weather data and population information.
- (h) Carries out research and development programmes. This aims at collecting and analyzing information on disasters and incorporating disaster plans in the overall national development plans.
- (i) Carries out disaster management training programmes which includes public awareness and advocacy.
- (j) Implements country wide disaster relief programmes in times of disasters. This includes food relief distribution, procurement, and provision of logistics.
- (k) Manages equipment necessary for use during disaster operations. This includes a fleet of light and heavy-duty vehicles and boats.
- (l) Maintains reasonable levels of stockpiles which include food and non-food items.

# Disaster Management Structure for Zambia



## **CHAPTER 2**

### **Attachment to the DMMU**

#### **2.0 The Attachment Setting.**

This project was an attachment to the Disaster Management and Mitigation Unit in the office of the Vice President from 5<sup>th</sup> June, 2000 to 20<sup>th</sup> October, 2000. The DMMU offices are situated at 25, Tito Road, Rhodes Park, in Lusaka. Lusaka is the capital city of Zambia. It is the seat of government and houses all government ministries. Lusaka is the largest city in Zambia compared to the other cities like Ndola and Kitwe on the Copperbelt Province and Livingstone in Southern Province. Its population was 26,000 in 1950, 123,000 in 1963 and 538,000 in 1980 (GRZ, 1990:41). In 1990 the population rose to 982,362 (ibid.3).

Major players in the management of natural disasters have their headquarters in Lusaka. These include government ministries, UN agencies, international and local NGOs. All these organisations can be easily accessed by the DMMU for the purpose of seeking help in the event of a disaster.

#### **2.1 Purpose of Attachment**

The impact of disasters is generally negative. Disasters cause loss of animal and human life, damage to property, loss of livelihoods and damage to the environment. Disasters have also positive aspects. In the aftermath of a disaster, opportunities for improving pre-disaster conditions are normally embarked upon. Rebuilding after the occurrence of a disaster provides significant opportunities to initiate development programmes.

The DMMU was established as a disaster management coordinating agency of government. It was therefore imperative to be attached to the DMMU because of its central role in the coordination of disaster management.

scope of the disaster, the response measures may involve evacuation, food relief, provision of water, clothing, medical services and shelter. These services can not be provided by one organisation. The creation of a body to coordinate the various services and functions become cardinal. Such a system reduces duplication of efforts and maximises the use of resources. Central to this system of coordination is a properly designed communication network coupled with effective and appropriate communication channels and products. Disaster management rests on participatory communication. This is true during pre-disaster and post-disaster preparedness, mitigation, rehabilitation and reconstruction phases. These are measures undertaken to reduce the impact or prevent loss of life, damage to property and the environment. They require coordination based on mutual understanding. The participatory process in development communication is defined as a two-way dynamic interaction between grass-roots receivers and the information source in a communication transaction (Nair and White, 1993:54).

The old paradigm of communication was unilinear. It assumed that communication should evolve from the elite, the educated, the political decision makers and then trickle down to the masses. The trickle down effect model advanced and propagated by the North has been proved to be ineffective and inappropriate for the social and economic development of countries of the South. Communication scholars argue for participatory communication in which there is exchange of information based on mutual understanding, respect and trust. The DMMU aims at achieving this ideal.

Attachment to the DMMU, which is the nerve-centre of disaster management was therefore significant and served the following purposes:

- (a) The attachment was an academic and practical exercise, which provided rich learning experience on development communication.



## **2.2 Justification**

Zambia is at risk from climatic hazards like drought and floods, pest infestations like stock grain borers and army worms, epidemics like cholera and HIV/AIDS, environmental degradation caused by pollution and drought. The Zambian society is also at risk from geological hazards due to mining activities. The creation of the DMMU was therefore a positive step. It is the focal point through which disaster response is coordinated. The DMMU links other organisations involved in disaster management and provides a communications centre.

Such a communications centre:

- (a) provides communication resources and products,
- (b) receives, collates and assesses information received on disasters,
- (c) coordinates with stakeholders, and monitors all disaster relief activities,
- (d) provides and interprets government policy on disaster management, and
- (e) provides a data bank on disaster management. Its main function being to research, store, process and disseminate information on disasters.

The attachment to DMMU was significant. It addressed the following concerns:

- (a) Current organisational structure and communication patterns aimed at enhancing response to disasters.
- (b) Communication policies, strategies and channels employed by the DMMU in order to reach the stakeholders including vulnerable communities.
- (c) Zambia's disaster management preparedness in relation to the availability

## **2.3 Statement of the Problem**

The overall responsibility for disaster-related matters rests with government. Government is responsible to the people for meeting the needs created by disasters in the same way it is responsible for other aspects of national life (Carter, 1991:36). In Zambia the DMMU which is a government agency is supposed to coordinate with line ministries, UN agencies, NGOs, vulnerable communities, private organisations and the Disaster Management Training Centre (DMTC).

Despite this ideal and the creation of a disaster management structure, the attachment to the DMMU was prompted by the following problem-areas:

- (a) Absence of a disaster management communication plan.
- (b) Unclear and undefined guidelines on the role of stakeholders in disaster response.
- (c) Absence of a disaster management policy and legal framework.
- (d) Apparent duplication of disaster management activities implying the lack of an effective coordinating body.

## **2.4 Objectives**

The following were the objectives of the attachment:

- (a) To analyse the current organisational structure and how it fosters communication with stakeholders including vulnerable communities.
- (b) To assess the effectiveness of communication policies, strategies,

response to disaster management.

- (c) To analyse communication problems in the light of communication theories and practices.
- (d) To carry out specific duties for the purpose of learning and contributing to effective development communication.

## **2.5 Methodology**

Practical attachment is based on the assumption that communicators need training that integrates theory with practice. This particular exercise entailed being involved in the activities of the DMMU. It also involved interviewing and discussing with stakeholders.

Officials at the DMMU were interviewed. The four officers were the main source of information. The daily interaction was with them and was based on the understanding that the learner was not a mere receiver but a contributor to the learning and problem-solving process.

Discussions were also held with the Provincial Disaster Management Officer in-charge of Central and Northern Provinces. This visit to Kabwe Provincial Centre provided information on how the DMMU networks with the players at provincial and district levels.

Kafue District Disaster Management Committee was also visited on two separate occasions. Discussions were held with the Deputy Council Secretary and the District Disaster Management Committee Secretary. The purpose for these discussions with the district officials was to learn and understand how disaster management is coordinated at district level. This also provided information on the whole communication network between the DMMU and its operative committees.

The following methods of data collection were used.

(a) In-depth interviews.

This was the main method of data collection applied on all the 20 people listed on Appendix 1 with whom interviews and discussions were held. This was done in order to get detailed information on disaster management communication. Each interview coupled with discussions lasted for a minimum of two hours. Some of the contacts were made on more than one occasion.

(b) Extraction from secondary sources.

Information was also extracted from official records particularly those relating to meetings of various disaster management committees, correspondences with persons and organisations appealing for food relief and material help, and from DMMU annual reports.

Information was also obtained from documents produced by consultants notably, the Central for Development and Management of Human Resource who did a draft report on *Disaster Management Policy for Zambia* and a proposed draft on the *Disaster Management and Mitigation Bill*. The report by the Pan-African Institute for Development for Eastern and Southern Africa (PAID-ESA) on the *Establishment of an Information Management Unit* at DMMU was also consulted and provided valuable information.

These are very important documents, which have provided the DMMU with a framework for operation. They have since been submitted to Cabinet for

### 2.5.2 Feedback Mechanism

The DMMU expected feedback on the activities of the attachee particularly on assignments undertaken, problem areas in disaster management communication and proposed remedies. This meant constant interaction with the DMMU officials. In order to accomplish this, two main methods were used namely:

(a) Meetings:

There were constant meetings with the DMMU officials for the purpose of briefing and discussing the findings and suggestions.

(b) Reports:

Written reports were made and submitted to DMMU on assignments given.

### 2.5.3 Data Analysis

Qualitative methods of data analysis have been used. The analyses are centred on how the communication network affects the way natural disasters are managed in Zambia. The data are grouped in the following categories:

(a) Communication network.

(b) Participatory development communication.

(c) Communication policies, strategies and channels.

(d) Disaster planning, preparedness, response, mitigation, rehabilitation and reconstruction.

The data have been analysed by comparing views and responses obtained from the persons interviewed on how they perceive the current disaster management

based on indicators (a) to (d). The available literature has been carefully analysed in view of the findings in order to make deductive conclusions. Personal experiences have also provided a basis for conclusions made in this report.

## **2.6 Literature Review**

A Communication network in managing natural disasters has to be planned for with specific roles to be played by those involved. As Hancock (1992:91) put it, network planning refers to inter or cross-institutional planning and is a response to information transmission and exchange. If communication is a necessary aspect of organisational life under conditions of normal operation, it becomes even more important in emergencies. Communication is a means of connecting service providers, planners, decision makers and beneficiaries. No one organisation can claim to have all the resources. Disaster management is built on a system of coordination where various organisations, individuals and communities perform specific roles for the functioning of the whole.

Leading scholars in communication for development are now arguing for communication between the benefactor and the beneficiary where each side, has an equal chance of influencing the other (Melkote, 1991:252). Ascroft and Masilela, (1994:279) call this knowledge sharing. According to the communication network envisaged by Ascroft and other scholars, a communication network should allow for exchange of information and ideas on equal basis. To qualify as a communication network, in the sense intended, there has to be both a means of delivery and exchange and an active flow of messages in which most or all participate (McQuail, 1994:7-8). Middleton (1985:21) defines communication planning as the creation, allocation and/or use of communication resources to achieve socially valued communication goals in the context of a particular social image or images. The emphasis in this

communication can take place without communication channels being in place. Equally important is people's participation as emphasised at a meeting of communication scholars (Kasoma, White, Ascroft, Nair, Jacobson, Thomas, et al) held in February, 1989 in India at the University of Poona.

### 2.6.1 Disaster Management Coordination

Coordinated response is important in disaster management, it enables the participation of a cross-section of people and organisations. The UN has provided a lead in establishing a coordinated communication network by establishing the Office for the Coordination of Humanitarian Affairs (OCHA). The OCHA which is based in Geneva is the focal point for disaster management in the UN system. It provides a framework for coordination of assistance by the UN agencies (UNDP/UNDRO, 1992:47). At country level, this function is coordinated by the UNDP Resident Representative or any other appointed official.

Following a disaster, the UN offers its services to the government of the disaster-stricken state. The UN Disaster Management Team ensures a prompt, effective and concerted response to disasters. The team also coordinates UN assistance to the government in respect to post-disaster rehabilitation and reconstruction (UNDP/UNDRO, 1992:43). The UN Disaster Management Team which comprises the UNDP, WFP, WHO, UNHCR, OCHA, FAO and UNICEF interfaces with the country local disaster management team and gets integrated into operative committees. This arrangement provides an effective communication network which brings local and international organisations into a system for disaster management coordination. Ratilal (1989:169) reports that the UN active support contributed towards effective coordination of the 1982-1984 drought relief operation in Mozambique. Ratilal, in his study attributes this success to the spirit of tolerance and cooperation on the part of the representatives of the

various UN agencies, local and international NGOs, vulnerable communities, the media, individuals and the Mozambican government.

The available literature points to the fact that disaster management rests on an effective communication network. This network is multi-dimensional and multi-sectoral. This is as it should be because disasters affect the entire fabric of society, they affect the physical environment, destroy animal and human life, displace people, affect political stability and slow economic development. The approach to disaster management requires a holistic approach.

Reducing the impact of natural disaster calls for the involvement of everyone. Information sharing is, therefore, cardinal. The sharing of information requires that deliberate structures should be put in place at various levels so that information can be transmitted in the most effective way, using the most appropriate technological and traditional communication channels. The communication network is a channel through which people receive and/or exchange information for the management of natural disasters.

The absence of a well-planned communication network has been a major reason for failure in managing natural disasters. Smith (1992:75) reports that in Uganda, the Karomoja Famine Relief Programme in May, 1980 was marred by lack of inter-agency coordination. The intention to temporarily import food stocks from neighbouring countries was frustrated by the absence of a central control system. There was confusion as to which agency was responsible for transport.

Poor communication and coordination has also been reported in the Sahel region in a study by Sheets and Morris (1974:2-3). The Sahel region in West Africa, which comprises Mauritania, Mali, Niger, Chad, Sudan and Ethiopia, experienced recurring drought in the late 1960 and early 1970s. Although agencies of the United States government and the United Nations assumed major roles in international relief for the Sahel, Sheets and Morris reveal serious



flaws in the organisation of the relief effort. This was largely due to bureaucratic delay, failure to heed early warnings, unpreparedness, failure to monitor and coordinate the rescue efforts, lack of information on the capacity of the Sahel region to deal with the drought disaster and lack of transparency and accountability. This clearly shows the absence of a two-step-flow system of information dissemination. The Sahel region was a mere receiving zone of aid from the North.

Further examples can be drawn from the SADC region. Mozambique was affected in February, 2000 by the worst flooding in living memory, which set back years of development. On March 22, 2000 the Mozambican government made an emergency appeal of US\$101 million. The appeal covered 650,000 flood-affected people in Maputo, Gaza, Inhambane, Sofala, Manica and Tete Provinces (FEWS Bulletin, 2000:7). Although Mozambique is a member state of the SADC region, the region failed to respond to the flood disaster. The SADC has no disaster management communication plan. It was a shame for the SADC member states to deal with the flood-problem as individual countries other than a regional grouping. This is a clear example of the absence of a communication network, which is necessary to ensure a coordinated response to disaster management.

#### 2.6.2 Disaster Management Coordination in Zambia

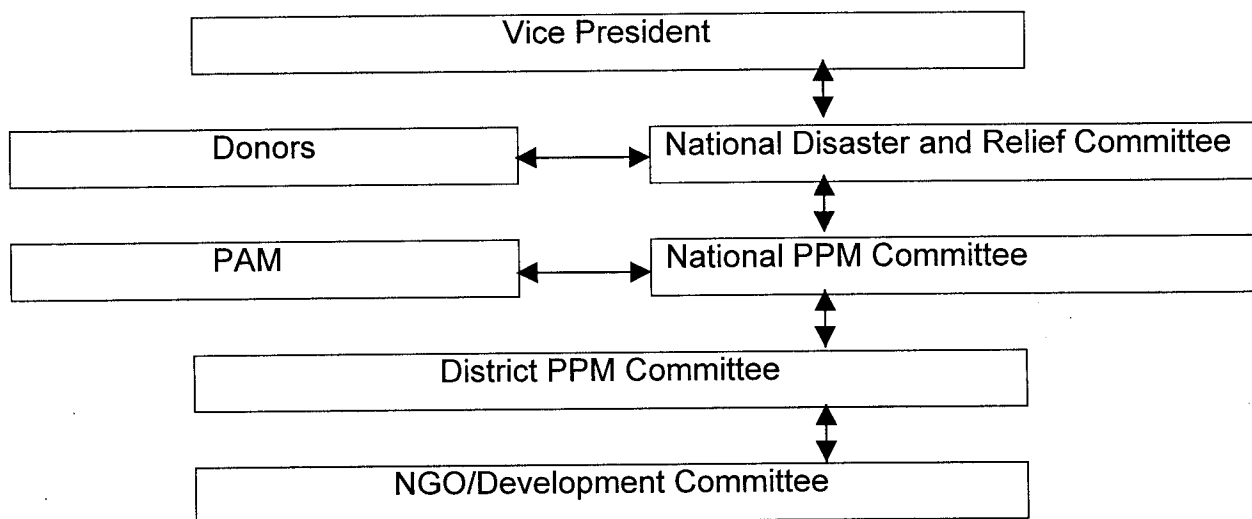
Coordinated response is vital in disaster management because it ensures economic use of available resources. The DMMU as a coordinating agency of disaster management has a pivot role in ensuring that there is order in the midst of confusion caused by disasters. The organisations involved in disaster management in Zambia, which include NGOs, UN agencies, line ministries, private and public institutions, have been responsible for responding to disasters. They can be regarded, according to Benthall (1993:13) as forming a functioning system, though not a system, which has been purposefully designed. This

explains why measures to respond to disasters are *ad-hoc*. Organisations come together when a disaster occurs and form a communication network which does not continue after the disaster.

The response by the Zambian government to the 1991/92 drought can be cited as a success story. The GRZ created the PPM communication network. This was able to link all the lead NGOs which were responsible for the distribution of food relief. The NGOs, which included World Vision Zambia (WVZ), Care International, Programme Against Malnutrition, Zambia Red Cross Society (ZRCS) and church organisations effectively managed the relief services. The mobilisation of international resources by government and UNDP in support of drought relief was also effective. As a result of this coordinated response, there was no reported death of people from starvation (GRZ, 1993:1). The communication network was as shown in Figure 4.

**Figure 4:**

*National Structure for Dealing with Drought*



Source: GRZ/UNDP Programme Support Document

The National Disaster and Relief Committee (NDRC) was a Cabinet inter-ministerial committee whose main function was the coordination of line ministries, ensuring donor support and providing policy for disaster response. The National PPM committee served as the NDRC link with vulnerable communities. The former obtained information on the needs of people through the District PPM committees and the NGOs/Development committees which were community based.

This arrangement had very weak provincial linkages as compared to the national structure created after the DMMU was established in 1997 as shown in Figure 3 in Chapter 1. The National PPM Committee which worked through a country-wide communication network of NGOs had very strong links with vulnerable communities.

This network was deliberately formulated in order to cut-off bureaucracy and deal directly with structures on the ground. This was necessary in order to respond quickly to the famine as a result of drought-induced crop failure. The Ngos are usually close to affected communities and are in a position to provide up-dates that may reflect the actual needs of people.

Although this exercise was successful, poor communication was cited as the main constraint. In a report on a national drought management workshop held at Mulungushi International Conference Centre from 15 to 17<sup>th</sup> November, 1993 communication between government agencies and vulnerable communities was said to be poor. There was no government department mandated to coordinate relief with adequate authority to ensure compliance by others. The PAM, which was established to perform this role, lacked any legal backing and was regarded in government circles as an NGO. The need for a permanent government structure was now apparent. This led to the establishment of the Disaster Management and Mitigation Unit in the Office of the Vice President.

## 2.7 Limitations

There were a number of limitations which affected the practical attachment and/or information obtained. The following are the major ones.

- (a) The period June to October, 2000 was quiet in terms of natural disaster occurrences like floods, drought or sudden outbreak of epidemics of disastrous proportion requiring emergency response. This denied the attachee an opportunity to be involved in an emergency operation and to see how organisations network in an actual crisis situation.
- (b) There were no Disaster Management Coordinating Committee Meetings held at the DMMU offices during the entire period of attachment. These meetings are supposed to be held at least once per month. This would have been an opportunity to meet and discuss with the members and seek their corporate views on communication networking in managing disasters.
- (c) The DMMU has not developed any system of codifying information. Data on disaster occurrences, people affected, property destroyed, nature of response and money spent are not collated. This has affected the statistical data in this Practical Attachment Report (PAR).
- (d) Government bureaucracy was a limiting factor in dealing or implementing the suggestions made by the attachee. Suggestions made that boarder on policy are referred to the Permanent Secretary in the OVP by the NC who may also recommend them to the appropriate arms of government.
- (e) Time was a limiting factor. Four (4) months of studying how a system works was not enough. There was need for a minimum of six months of practical attachment.

## **CHAPTER 3**

### **Conceptual Framework**

#### **3.0 Communication Network**

Communication has been defined by Infante, Rancer and Womack (1997:8) as the human manipulation of symbols to stimulate meaning in other humans. In this definition, the authors recognise the importance of the means and purpose in human communication. Implied in the definition is the creation of a communication network.

The development of a communication network is a response to how human beings interact within themselves and their environment. In their quest to deal with problems, human beings create structures which get inter-linked by a communication network. Rogers (1995:27) defines a communication network as consisting of interconnected individuals who are linked by patterned flows of information. According to Hancock (1992:91) these communication links do promote and develop a system through which information flows.

The absence of a communication network breeds confusion, conflict, duplication of efforts, lack of dialogue and shared purpose, and unnecessary competition. In managing natural disasters, which is our main concern, proper networking is vital in order to avoid chaos which normally characterise disaster situations and endangers human life and the safety of property and the environment. A communication network should not be assumed to exist, it should be deliberately and purposefully formulated.

Zambia has established a disaster response system, which aims at linking all the stakeholders. This system does not work as it should. Various players in disaster

management have their own mandates and do not feel answerable to the DMMU which is the government coordinating agency.

It is not uncommon to find more than one NGO operating in a particular disaster area offering the same kind of services. The competition among the NGOs is a clear indication of the absence of an effective communication network. The NGOs are answerable to their donors who deal directly with them and not through a government agency like the DMMU. The feedback on their operation is first to those who finance their operations. The situation within government circles is not different. The Ministry of Agriculture, Food and Fisheries, Ministry of Health, Ministry of Defence, Ministry of Environment and Natural Resources, Ministry of Community Development and Social Services, Ministry of Local Government and Housing and the Ministry of Energy and Water Development, all deal with some aspects of disaster management.

These ministries have their own emergency operation plans which are not linked to the operations of the DMMU. When there are disasters like outbreaks of livestock or crop diseases, epidemics like cholera, soil degradation due to pollution etc., respective ministries deal with such disasters. While there is nothing wrong in having sectoral disaster management plans and strategies, these should be linked to the main government plan for which the DMMU is the custodian.

### **3.1 Information Dissemination**

One of the key resources for efficient planning and effective implementation of disaster management is information. For effective collaboration of several institutions, the basic information must be reliable and must enjoy credibility among the stakeholders. The functional model of source credibility views credibility as the degree to which a source satisfies the receiver (Infante, Rancer and Womack, 1990:158). For information to be credible it must address the real

needs of the people affected by a particular disaster. It must also be disseminated using the most appropriate channels and it should emerge from a source that is conversant with the hazard being addressed.

Disaster management greatly depends on a well-developed communication network in order to disseminate the right messages, to the right people, at the right time, in the right form, and using the right means of information dissemination.

Information necessary for disaster management must take into account the grass-roots communication network. Communication theories that develop taking into cognizance already existing communication patterns are more likely to be useful than those, which do not. Communicators need to build on what already exists particularly among the local communities affected by particular disasters. The communication network developed by communities take into account the culture and the available capacities to handle disasters. These capacities can not be ignored in preference for new communication theories, models and approaches.

Local communities, which in essence are the victims of natural disasters, need to be integrated into the communication network as communicators and as contributors to information and knowledge other than as passive recipients and consumers of information. This under-scores the importance of participatory communication in disaster management. The participatory process incorporates the views of the affected people. This helps in the mobilization and utilization of locally available resources and skills.

Information for disaster management is needed by all stakeholders including the vulnerable communities. Its importance has been well summarised by the International Federation of Red Cross and Red Crescent Societies (IFRCRCS, 1997:35) which states that:

Information in disaster relief is a primary tool and an essential resource, it translates into supplies, logistics and agency cooperation. Speed, accuracy, and completeness of data can help save lives.

Stakeholders have different information needs and priorities. The question of relevance is vital in information dissemination. The sender and the receiver engage in the dynamics of information processing. In so doing information is weighed against a perceived need. The stimulus-response view associated with early communication theories like the Magic Bullet Theory which regarded mass communication as having a universal effect on all those exposed to the message have been proved inadequate to explain why people are persuaded to accept some information and reject others.

According to Severin and Tankard (1971:176), the major change in the field of persuasion theory has been a move from a mechanistic stimulus-response view of persuasion to a view that recognises the active role of the receiver. The implication of this, is that, in communication, there are no permanent senders and receivers. These roles change depending on the nature of problem and information required. This is what normally determines as to who should talk and who should listen. A communicator who ignores this basic principle is likely to impose his or her will on the people and risk the danger of the information being rejected.

### **3.2 Disaster Concepts**

In providing a conceptual and theoretical framework of disaster management, it is imperative to discuss commonly used concepts and terms. It is difficult or perhaps unnecessary to provide explanations that can have universal application. In discussing these concepts, the author is mindful of the UN effort to develop consensus in their use, in the same vein care has been taken to contextualise the terms to make them appropriate to the needs of society.

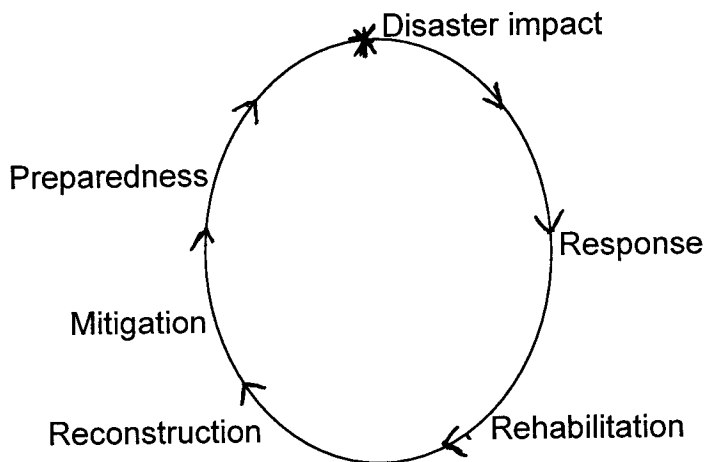


### 3.2.1 Disaster Management

Disaster management refers to the measures society undertakes which include policy and administrative decisions and operational activities employed at various stages in order to appropriately respond to, prepare for, and mitigate against disasters.

Disasters are commonly illustrated as a cycle of occurrences (Carter, 1991:XXIV, UNDP/UNDRO, 1992:12) as shown in Figure 5.

**Figure 5.**  
*The Disaster Management Cycle*



According to this diagram, disasters are viewed as a series of phases on a time continuum. The implication is that disaster management is a continuum of inter-linked activities. The presentation of disaster management portrays a culture of perceiving disasters as events whose mitigation leads to insignificant impact reduction. A person involved in disaster management who takes this view will be more concerned with being re-active than being pro-active. The cycle presentation of disaster management defeats the more fancied developmental approach which aims at breaking the perpetual cycle. The aim is to break the

cycle so that when disasters are responded to, mitigated against, or prepared for, the post-disaster situation should be an improved status. This will mean that in the event of another disaster, developmental measures would have been put in place. Response to disasters should not take the same form. Zambia has used the same methods and means of responding to disasters as portrayed by the school of thought that believes in the cycle presentation of disasters.

Response to disasters is currently inclined to food relief. This is a typical example of a cycle presentation of disaster management. Disasters occur and are responded to in the same manner as previously. This is a vicious circle which needs to be broken. People get conditioned to receiving food aid each time there is a disaster. There have been situations in Zambia where newly germinated maize get submerged in water because of floods and people immediately appeal for food aid. Disasters tend to be associated with humanitarian aid.

Developing countries like Zambia need to move from this dependency syndrome which perpetuates the cyclical view of managing natural disasters to a more developmental and sustainable approach.

### 3.2.2 Disaster Preparedness

The concept of disaster preparedness entails that in the time of disasters appropriate systems, procedures and resources are in place to assist those affected by the disaster. The aim of disaster preparedness is to minimise the adverse effects of a hazard through effective precautionary actions, and to ensure timely, appropriate and efficient organisation and delivery of emergency response following a disaster (UNDP/UNDRO, 1992:52).

Disaster preparedness requires that a disaster management communication plan is in place. The plan should be rehearsed very often to ensure that the measures

put in place are workable. The following are components of disaster preparedness.

(a) Vulnerability assessment

This involves assessing the degree to which the people, the environment and assets are exposed to loss resulting from a hazard.

(b) Planning

The purpose of planning is to anticipate future occurrences of disasters and requirements, thus ensuring the application of effective and coordinated disaster-response.

(c) Institutional framework

This refers to a coordinated disaster preparedness system. The institutional framework provides a communication network, which incorporates vertical and horizontal communication patterns.

(d) Information systems

This involves putting in place data collection process and data dissemination. Information systems also incorporate early warning and monitoring systems.

(e) Resource base

Disaster preparedness requires a strong resource base of funds, food, shelter, communication systems, logistics system and stock piling.

(f) Warning systems

Effective early warning of possible disasters is a major objective of government and organisations in determining disaster preparedness. People should understand and prepare for an approaching hazard.

(g) Response mechanisms

These are measures embodied in a preparedness plan of action to be taken by people and organisations in the event of a disaster. A preparedness plan should categorically show what is to be done when a disaster strikes.

(h) Public education and training

Disaster preparedness rests on an informed community. People should know the nature of disaster threat, its effects and what should be done. People who may be affected need to be trained on the appropriate response or behaviours. Communication campaigns become essential in ensuring preparedness.

(i) Rehearsals

These are drills meant to test the plan. This is important in order to avert chaos and panic. Rehearsals highlight shortcomings in the disaster management communication plan and helps to make corrections and adjustments before a disaster occurs.

### 3.2.2.1 Importance of Disaster Preparedness

Disaster preparedness is a major component of disaster management. It should be a main function in any designed communication network. Dealing with disasters should not be left to chance or “mother nature,” they should be prepared for. Human beings have the potential and ability to predict the possibility of a disaster occurring. The use of modern technology can enable the prediction of changes in the weather pattern that may result into drought, floods or cyclones.

Disaster preparedness, therefore, is inevitable particularly in countries like Zambia, which have an established disaster management unit. A country without a disaster management plan can not be said to be ready to manage disasters. Disaster preparedness brings to fold a host of data necessary to manage natural disasters. These include material and human resources, previous preparedness plans, policies, strategies, warning systems, vulnerable communities, disaster effects and organisations involved in disaster management.

### 3.2.3 Disaster Response

Disasters are inevitable and should be responded to when they occur. Disaster response refers to measures undertaken in the face of a disaster. These measures call for cooperation and concerted efforts by government, international and national NGOs, private organisations and individuals. Disaster response requires a clear communication network system where the players in a particular disaster know their roles and the roles of others.

Disaster response aims at:

- (a) Saving lives.
- (b) Re-establishing of disrupted essential services to the affected people.

- (c) Repairing or replacing any damaged infrastructure.
- (d) Re-activating people's economic activities in order to decrease vulnerability.
- (e) Providing food relief, shelter, medicine and water as the case may demand.
- (f) Providing security for the people affected to ensure that their human rights are not violated.
- (g) Offering counselling services to the disaster survivors who may suffer from psychological stress disorder syndrome.
- (h) Helping to develop the affected community coping mechanisms in order to empower them and ensure sustainable living.
- (i) Identifying gender needs during and after a disaster and responding to these needs appropriately. This would also include responding to specific needs of children.

Disaster response should begin with the affected communities. Information is therefore necessary in order to have an informed community capable of taking practical measures to avert loss of life, damage to property and environment. As Severin and Tankard (1992:230) put it, information is a resource. It has value, and it lets people do things that they could not do if they did not have the information. Information is, however, not evenly distributed. The information on disasters tends to be shared between the DMMU and institutions involved in early warning. There is no clear pattern of information flow with the communities which actually suffer the effects of disasters. There is an obvious knowledge-gap. The knowledge-gap hypothesis predicts that people of low and high socio-economic status will both gain in knowledge because of additional information but that persons of high socio-economic status will gain more (ibid:233).

Organisations that constitute the EWS are exposed to what can be termed the communication evolution or information explosion brought by new technology. They have access to cable television, radio, newspaper and computer

information. This knowledge-gap renders disaster response in Zambia uncoordinated. The efforts should be on building a communication network that will provide a means for the exchange of information between those in the high socio-economic status and those in the low socio-economic status. The blending of this knowledge is cardinal, it is a marriage between modern communication techniques and rich traditional channels of communication.

#### 3.2.4 Disaster Mitigation

Disaster mitigation is a development ideal which strives to link disasters with development. The aim is to reduce the risk of hazards through deliberately undertaken projects. Mitigation refers to pre-disaster measures. They are mostly long-term development activities. In Zambia for example, PAM has moved from the emphasis on food distribution to communities affected by disasters to empowering such communities. PAM has a seed-distribution programme and promotion of drought resistant crops. These are mitigatory factors or measures that are long-term and developmental in their emphasis.

Emphasis has also been made on constructing houses that can stand hazards like strong wind and storms. In the language of disaster management, this is called engineering. Engineering measures emphasise the construction of strong structures that are more resistant to hazards. Another factor worth noting in mitigation is spatial planning. This refers to avoiding hazardous areas to being used for settlement. From 1998 to date the opening of Kariba spillway gates has become an annual event. Apart from doing it in order to save the dam from collapsing, Siavonga district council uses the occasion as a tourist attraction. People should be discouraged from settling in the flood-prone areas. Planning should integrate awareness of natural disaster risks. Economic development is another important factor in disaster mitigation. A strong economy means the availability of resources that can be utilized in projects aimed at disaster mitigation. Disaster mitigation apart from a strong economic base also requires

the management and institutionalization of disaster mitigation. This means that, the measures to mitigate against disasters should be deliberately formulated. There should be in place policies and procedures that should guide action. The absence of any communication policy would render the perceived procedures uncoordinated. Disaster mitigation should also be contextualized. It should be a reflection of society's cultural, political, economic and technological development. Contextualization of disaster mitigation provides appropriateness to the measures undertaken.

### **3.3 Disasters and Development**

Disasters are normally looked at in the context of emergency response. Development programmes are rarely assessed in the context of disasters. Disasters are regarded as "an act of God" which require responding to when they occur and hope that they will not re-occur. The affected communities become objects of pity to receive food relief, medical supplies, clothing and shelter.

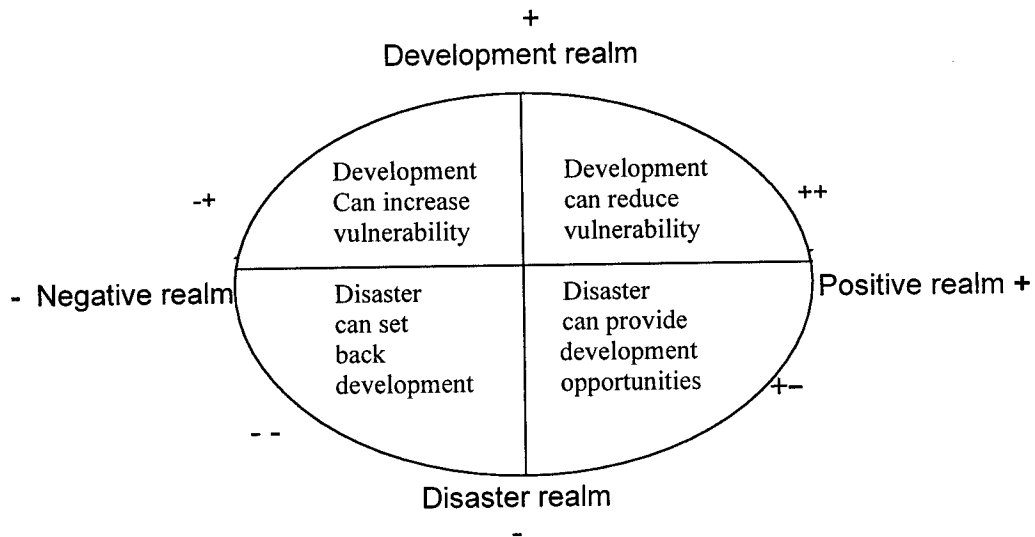
Disasters should be seen as part of the process of social and economic development planning. Ignoring disaster issues render development programmes and projects vulnerable to the adverse effects of disasters. Government ministries and other agencies involved in development planning should have direct and practical connections with an agency like the DMMU, which is mandated to coordinate disaster management.

Planning agencies should have clearly defined roles and responsibilities regarding disaster prevention, preparedness, response mitigation and recovery. This will ensure that disasters are incorporated in sectoral and national development plans.



There is a new conceptualization of the relationship between disasters and development as illustrated in Figure 6.

**Figure 6.**  
*Disasters and Development linkages*



Source: UNDP/UNDRO 1992 *Disaster Management Training Programme*

According to Figure 6, there are four components in the disaster and development linkages stated as follows:

- (a) Development can increase vulnerability.

The underlying idea in this theme is that well-meaning development projects can have disastrous consequences. The building of the Kariba Dam in the late 1950s meant for electricity generation was a developmental project which led to the displacement of the inhabitants of the area. The people were resettled in dry and unproductive areas leaving the fertile Zambezi plains to a mere mass of water forming the largest human-made lake in the world. The displaced people have now become

perpetual recipients of food aid due to drought-induced crop failure. While there was a positive aspect to this project, displacement of people had negative consequences.

(b) Development can reduce vulnerability

Vulnerability is the degree of loss resulting from a potentially damaging hazard. The vulnerability to HIV/AIDS depends on the information people have on the disaster and their attitudes. The vulnerability of a bridge being washed away by floods depends primarily on the type of construction and materials used. Zambia is vulnerable to disasters such as famine partly due to people's inability to put in place food security measures.

Development work is focused on reducing vulnerability. Health educational campaigns on HIV/AIDS are meant to reduce people's vulnerability to the disease. Construction of bridges and houses under building codes are designed to make them strong in order to withstand any damaging disaster to which they are at risk. On famine, the diversification of crops to drought resistant ones like cassava, millet and sorghum is meant to increase food security. These are examples showing how development can reduce vulnerability.

(c) Disasters can set back development

Disasters cause loss of life, damage to property and the environment. They also interrupt development programmes and divert resources to respond to emerging emergencies. During disasters, people look to government for help. This usually causes pressure and political instability. In Mozambique during the 2000 floods, people's food reserves were

destroyed, social and economic infrastructures were damaged. In Zambia the 1991/92 drought caused loss of livestock and agro-based businesses. The Zambia Electricity Supply Corporation started shading-off power resulting in loss of business for many industries which were no longer operating at full capacity. In these two countries disasters set back development. The resources meant for developmental projects were diverted to disaster response.

(d) Disasters can provide development opportunities

Disasters can also accord development opportunities. They normally create awareness of how vulnerable a particular community is to disasters. Disasters highlight which areas are at risk where developmental programmes must be embarked upon before another disaster strikes. When the actual disaster occurs measures are normally undertaken to improve on the pre-disaster conditions.

Following the 1991/92 drought in Zambia, various practical steps have been undertaken. These include the establishment of the DMMU to coordinate disaster response, the establishment of various disaster management coordinating committees and the creation of the Disaster Management Training Centre (DMTC) at the National College for Management and Development Studies (NCMDS).

### 3.3.1 Negative and positive linkages

Kasoma (1994:403) defines development as:

The improvement in the human life condition at individual and societal levels which is achieved through desirable but fluctuating changes or adjustments in the environment.

According to Kasoma, development is not unilinearly progressive, it sidetracks, backpedals and even stagnates before any push forward is registered. The fluctuating changes can very well be attributed to disasters. When disasters occur development projects may stagnate before any new mitigation measures to push them forward are embarked upon.

In the development process these fluctuations should be planned for so that in the event of a disaster, the impact on the people and their environment is not grave. This is basically the principal upon which disaster management is based. The same principal is responsible for creating a response mechanism. A communication network developed to provide a coordinated response to disaster management should anticipate and plan for these fluctuations in development. Disasters should, therefore, be embodied in the development plans.

### **3.4 Participatory Communication in Disaster Management**

The concept of participation is widely used in the field of development . It is perceived as a democratic way of life. To participate is to be heard, thus people demand a participatory approach in matters that are important and incidental to their living. White (1994:17) distinguishes between pseudo-participation and genuine-participation. People's participation in development in which the control of the project and decision-making power rests with planners, administrators and the community's elite is pseudo-participation. When the development bureaucracy, the local elite, and the people are working cooperatively throughout the decision-making process and when the people are empowered to control the action to be taken only then can there be genuine participation.

Participatory communication in disaster management needs to rest on genuine-participation. People need to know and understand their actions in managing natural disasters. In order to cause this understanding information is required. Both top-down and bottom-up flow of information is vital. The importance of

information required for disaster management largely depends on who is sending, to whom and for what purpose. Communication in disaster management is purposely formulated and strives on mutual understanding in which there is a dynamic exchange of information and ideas.

Transactional communication, which rests on dialogue, is necessary in that it brings into the communication process sharing of information and associated meanings. A good disaster management plan is one, which takes into account both the top-down and bottom-up flow of information. This, according to the symbolic convergence theory brings into play various private symbolic worlds into a shared meaning and purpose.

Shared understanding of the disaster threat is cardinal if the disaster has to be managed effectively. The diffusion of ideas, concerns, skills and knowledge concerning disasters is more effective between individuals who are homophilous. Homophily is the degree to which individuals who interact are similar in certain attributes, such as beliefs, education and social status (Rogers, 1995:286).

The underlying factors in the convergence theory and in the diffusion theory are that disaster management communication is participatory. Disaster management is not just about providing relief, it is a host of activities which include response, rehabilitation, reconstruction, mitigation and preparedness. Humanitarian agencies, therefore, need to inter-link their activities with those of the affected communities. Central to this, is having an understanding of the affected communities; their culture, needs and potentials to manage disasters. The humanitarian agencies should also be understood in terms of their objectives, aims, strategies and philosophical concerns.

Lack of shared understanding can be attributed to some of the failures in managing natural disasters. In the Sahel region, the American-donated sorghum caused diarrhoea problem because the pastoral people were accustomed to a

high protein diet of meat and dairy products (Sheets and Morris, 1974:38). In 1997, in Zambia, the people of Muyombe in Isoka district of Northern Province of Zambia, rejected rice which was sent to them by the DMMU as food relief in order to avert famine. The people of this area regard rice as a snack. Their main staple food is maize. They could not understand how government could send rice to end hunger.

The two examples given above show how humanitarian agencies can ignore the importance of community participation. They assume that they know better what the disaster-stricken people need. The principle of people's self-determination is ignored. Help to the vulnerable communities is regarded as charity which should be gladly accepted because it shows good will. Modern theories of communication tend to support participatory communication in which people are not mere recipients or beneficiaries of aid but that they should be involved in determining the nature of the aid.

Dialogue between agencies involved in helping disaster-affected communities and their target audiences is important both for short and long-term programmes. For short-term disaster management programmes, dialogue helps to meet immediate needs as defined and perceived by people themselves. On long-term, dialogue helps to discover the community's potential to deal with natural disasters.

#### 3.4.1 Importance of Participatory Communication

Both participation and communication entails behaviour. They are activities that human beings do. Their usefulness lies in how each individual, organisation, or community internalises their processes and usefulness. This is a philosophical premise on which participatory communication in disaster management should be based. Participatory communication should evolve from a sense of conviction

to do so. This helps in formulating a useful communication network because it will take into account the people's needs and basic social images.

Participatory communication is important because it develops a deliberate link among the stakeholders. Secondly, self-reliance is promoted. This is because through participation, people develop confidence and self-determination. Thirdly, communities learn to exploit their local resources, both human and material. They develop local coping mechanisms and supplement these with external help only when it becomes absolutely necessary.

### **3.5 Behavioural and Structural Paradigms of Disasters**

There is an increased awareness about disasters and their impact on human life, property and the environment. There are also varying interpretations particularly relating to causative factors. The theories of hazards tend to centre their interpretation on human behaviour and on social structures. The behavioural and structural paradigms provide a conceptual framework for understanding the human conduct towards disasters. These paradigms are therefore, important in analysing communication network in managing natural disasters.

#### **3.5.1 Behavioural Paradigm**

The behaviourists view disasters as caused by natural phenomena. These could be geophysical and climatic changes. Because of this, managing natural disasters is deemed to be dependent on an effective prediction of their occurrence. The assumption in the behavioural paradigm is that, if people are able to predict the occurrence of natural disasters, they would put in place effective measures to mitigate their impact.

This paradigm puts the blame on the victim for not being aware of the hazard and for being exposed to it. Being vulnerable to disasters is regarded as a measure

of being irrational. The emphasis by behaviourists is put on the establishment of effective EWS and advancement of technology. This would enable the people to predict the occurrence of a particular hazard and take appropriate measures to reduce the impact.

Countries have taken significant steps in this direction. Satellite technology can be used to determine changes in the weather patterns. As a result of this, drought, cyclones and other weather related hazards can be predicted.

### 3.5.2 Structural Paradigm

The structurists do not blame the disaster victim for the inability to predict disaster-occurrences. The blame is put on the sources of the disasters. This paradigm asserts that disasters arise from social and economic inequalities. Poor countries are more vulnerable to disasters because of the working of the global economy.

The structural paradigm looks at disasters as resulting from gross inequalities which marginalise the poor. This paradigm reflect marxist theories that advocate for equal distribution of the means of livelihood other than putting emphasis on science and technology in managing disasters. The argument being advanced is that, using modern technology to predict the occurrence of disasters is not a panacea if the people are marginalised and unable to handle them.

The structurists, therefore, advocate for structural changes, transformation, modification and renewal. This is done in order to contextualise disaster management and tap the local knowledge, competencies and grass-roots communication.



## Personal Experiences

### 4.0 Field Work Practice

Trainers in the social sciences have realised the importance of engaging students in practical work in order to enhance learning. This is important because it brings a clear understanding of the realities of development. Students graduate from colleges or universities with knowledge and skills which are enriched by practice and experience. The blending of theory with practice produces graduates who are ready to perform and live to the demands of job situations.

The Department of Mass Communication of the University of Zambia (UNZA) has taken a very positive step in this direction. Students in the Master of Communication for Development (MCD) degree programme get attached to development agencies or communities to look at various aspects of communication for development. The infusion of the practical attachment, makes the masters degree programme unique and appropriate to the needs of society. The information collected is meant to address specific human-problems. The students present the findings and experiences that enrich and contribute to the body of knowledge in the science of communication for development. This practical attachment report is a product of the attachment to the DMMU.

Practical attachment requires that the learner is exposed to the work environment. This involves being exposed to the day to day routine work of the organisation and/or the community to which the student is attached. The student, during the time of practical work lives the life of the organisation or the community. He or she learns from the field setting. Learning opportunities are

In this partnership the student is not regarded as a “blank slate” on which the organisation or community is going to ascribe its ideals to make him or her become knowledgeable. The attachee also takes to the organisation or community theoretical knowledge, skills and experiences. In the words of Professor Francis P. Kasoma of the Department of Mass Communication at the UNZA, “the students return to the University better informed.”

Having gone through the practical attachment, one can say that the students become educated and ready to contribute effectively to development. The contribution to the available knowledge in the field of communication for development addresses real societal needs. The practical attachment produces applied knowledge as opposed to abstract research which is normally commissioned purely for the production of knowledge which may not address any identified problem or be of any immediate use.

During the attachment to the DMMU, the attachee was exposed to the daily routine work, having access to official documents and taking up specific assignments. This exposure made it possible to understand and appreciate the communication linkages between the DMMU and the organisations they network with.

The attitude of the officials working at the DMMU towards this practical attachment was very positive. They were cooperative and open to suggestions. They regarded the attachment as an opportunity to share information and ideas. They provided office accommodation, telephone, fax, e-mail and internet facilities. Such facilities made it easy to contact organisations for the purpose of making appointments, getting and exchanging information.

## **4.1 Organisational Communication**

Organisational communication involves exchanging messages to stimulate meaning within and between organisations and their environment (Infante, Rancer and Womack, 1997:322). This definition means that each organisation communicates within itself and with its environment.

Internal communication among employees which occurs between the management and workers, management and the workers' union, and among the workers or managers themselves is important. This interaction reduces uncertainty in the organisation. It also fosters understanding and a sense of belonging to the organisation. Organisations also communicate with their external publics who may be customers, suppliers, competitors, government agencies, bankers, shareholders and the media. Communication in organisations is therefore, a complex web of interaction which depicts the interrelatedness and interdependency of organisations. The DMMU is no exception. It is an organisation that is involved both in inter and extra-communication. The attachment provided learning experiences on the nature of communication in the DMMU.

The student was able to interact with the employees of the organisation. This interaction was a complete change from a classroom situation to a work setting. Both interpersonal communication and group communication were used. Interpersonal communication was used when discussing with individual officers particularly on how to deal with communication problems.

Group communication was also applied during discussions which involved all members of staff. Group communication was very rewarding on issues that required consensus. The student was exposed to the skills of how to conduct meetings and how to ensure participation. This is a very important skill in communication for development.

The DMMU has a broad external publics which include the following:

- (a) Line ministries and government agencies.
- (b) Members of the EWS.
- (c) The UN system.
- (d) Local and international NGOs.
- (e) Donors.
- (f) Communities affected by natural disasters.
- (g) Suppliers.
- (h) Disaster management units in the region.
- (i) Community leaders such as politicians, religious leaders and professionals working in disaster areas.

During the attachment, the attachee had a chance of meeting some of the people from the above mentioned list. The nature of communication ranged from interpersonal to group communication. This provided practical experience on how to use these forms of communication.

A case in particular where interpersonal communication was effectively used, although not the only case, was when a representative of a Christian Mission Centre reported a “disaster” and wanted help from the DMMU. It so happened that in October, 2000 in Kalingalinga compound in Lusaka, a strong wind blew off roofing sheets from one of the buildings and also damaged a wall fence. In the wisdom of the managers of this mission centre, this was a natural disaster which required the attention of the DMMU. They were requesting for financial and/or material help.

Such requests are an indication of how little people know about the work of the DMMU. As a student of communication, it was an opportunity to explain the jurisdiction of the DMMU. We were also able to explore the available institutions like the Department of Social Welfare which handles such emergencies. The DMMU handles disasters which have been so declared by the government.

The scale, intensity and the community's inability to deal with a particular disaster is what determines the intervention by the DMMU. The case being referred to did not merit such intervention. This was also an opportunity to indicate to the DMMU how little people understood their functions. The reaction by the officials was that they normally received such requests particularly from schools which got damaged because of torrential rains. In such matters the schools are advised to seek help from their parent ministry, the Ministry of Education.

These cases and the routine office work were important in the development of the students managerial and administrative skills. The attachment therefore, provided challenges associated with work situations in which the skills of communication were applied to the benefit of the organisation of attachment and the organisation's client system.

## **4.2 Lessons from the Data Collection Process**

The process of data collection was interactive and provided unforgettable experiences. Those involved in the discussions represented key institutions. They were eminent persons devoted to disaster management. The information obtained was therefore very credible. The art of interviewing and discussing on a topic that was described as dear to them was a very rewarding experience.

The attachee became aware of how much people wanted to see disaster management succeed in Zambia. The discussions exposed a great deal of good will. The concerns expressed provided valuable data on the challenges that have to be addressed for disaster management to succeed. Making appointments and getting people to discuss was a skill learnt in class and applied in the field. This greatly enhanced and improved the students communication skills.

The process of data collection was not without problems. There were times when it was difficult to interview people when one wanted to. The student learnt to wait for convenient times. There were also times when getting information was difficult from some organisations. In such instances the attachee used persuasive methods to get accepted and have access to information. These problems were lessons and experiences. When one looks back one sees great achievements. Practical attachment improves the skills of data collection and the ability to interact with others and win their confidence.

### **4.3 Field Assignments**

In order to enhance learning, the attachee was assigned to perform specific duties. These were activities in which the knowledge of development communication was essential. Learning by doing was considered appropriate and essential in this particular attachment. This was also a strategy employed by the DMMU to get the maximum input from the attachee.

Both the organisation of attachment and the student benefited from these field undertakings. The lessons learnt and experiences accrued by both parties will live on and have a bearing on future activities.

#### **4.3.1 Disaster Management Training**

The first assignment during the attachment was that of being involved in a three-weeks regional course on disaster management. The course was held at the DMTC which is housed at the NCMDs near Kabwe. The training centre was opened on 26<sup>th</sup> June, 1998 in order to cater for the training needs of Zambia and the sub-region.

The creation of an in-country disaster management training centre was conceived by the Zambian government which sought the assistance of Cranfield

University Disaster Management Centre in the United Kingdom. The NCMDs seized the opportunity and developed the centre with the help of the DMMU. Since its inception in 1998, courses have been jointly run by the Cranfield Disaster Management Centre (CDMC), the NCMDs and the DMMU. Apart from participants drawn from various organisations within Zambia, other SADC countries which have sent participants are Zimbabwe, Namibia, Tanzania, Botswana, Swaziland, Malawi and Mozambique.

Training is an essential element of disaster management. Zambia needs trained cadres in order to effectively manage disasters. Training covers the most important issues of planning, preparedness, response, mitigation, rehabilitation and reconstruction. All these main issues in disaster management are centred on communication. They all promote coordinated response which is, in essence, a communication network.

This involvement in disaster management training was not new. The attachee has been key in the establishment of the DMTC and in disaster management training in Zambia following an intensive course in 1997 at Cranfield University Disaster Management Centre.

The June, 2000 course was however unique. This was the last course in which the CDMC was being involved, according to the GRZ/UNDP Project Support Programme which covered the period 1997-2000. A review of the past performance was necessary. An attempt was also made to plan ahead. The attachee was fully involved in this planning.

From the discussions which involved the NCMDs, DMMU and CDMC, the attachee was able to conclude that Zambia had not made any significant steps in institutionalizing disaster management training. It was apparent that there was no consensus between the NCMDs and the DMMU on the way forward. The CDMC tended to be non-committal and adopted a spirit of wait and see.

Lack of a shared vision is usually due to the absence of participatory communication. This was identified by the attachee, as a problem that could lead to loss of the original plans to set up a DMTC to cater for Zambia and the sub-region. The DMTC does not have any structure of its own to provide a communication network to link all stakeholders in Zambia and the SADC region.

If Zambia has to make headway in disaster management training, the development of a communication network is essential. This can only be effectively done if there is a defined structure. The other important suggestion made was that the DMTC should be autonomous. It should however, be administratively linked to the NCMDS and continue receiving support from the government.

These suggestions made by the student aims at finding necessary interlinkages that would make the DMTC truly receptive to the needs of the Zambian society and the sub-region. Planning and re-planning is an essential factor in communication for development. The attachee's involvement in this respect enhanced the planning skills and provided valuable experiences based on real problem situations. By the time the attachment came to an end, these suggestion had not been implemented but were incorporated in the programme coordinator's report.

#### 4.3.2 SADC/UN Disaster Assessment Mission

The Southern Africa Development Community (SADC) which was formed in 1980 consists of 14 member countries namely, Zambia, Malawi, Tanzania, Democratic Republic of Congo, Angola, Zimbabwe, Namibia, Botswana, Mozambique, Lesotho, Swaziland, South Africa, Seychelles and Mauritius. Unlike the Common Market for Eastern and Southern Africa (COMESA) which is concerned with trade among member countries, the mandate of SADC covers a broad spectrum



of developmental issues like mining, transport, education , tourism manufacturing, environmental management, peace in the region etc.

The issues of disasters and how to manage them is equally of concern to SADC particularly that disasters do not respect these artificial boundaries. The 1991/92 drought for example affected the whole SADC region. Cattle diseases like lung cancer, foot and mouth disease, corridor disease are known to affect the livestock across borders. From previous occurrences, the SADC was supposed to have put in place a communication mechanism to counteract the adverse effect should any disasters occur.

When Mozambique was struck by floods in the year 2000, the SADC as an organized region had nothing or very little to offer. Countries responded in their individual capacities. Zambia for example donated foodstuffs, medical supplies and other logistical support valued at K3 billion. South Africa sent its helicopters for rescue operations, food and material help. Other SADC countries helped in similar manner purely on their own initiatives. The floods exposed how vulnerable and unprepared the region was in managing any major disaster. The need for a SADC disaster management system was deemed necessary. A disaster assessment mission was set up by the SADC Heads of Government to visit member countries and advise on the possibility of creating a system for disaster management. What was being envisaged was a SADC communication network in managing disasters.

A two-man delegation visited Zambia from 6<sup>th</sup> to 8<sup>th</sup> July, 2000. Two representatives Messrs Robert Mister, a Disaster Management Advisor from UNDP in Geneva and Spencer M. Pawadyira, Director of Zimbabwe Civil Protection were joined in Zambia by Mr. Morris Muchinda, a Chief Meteorologist and this author. We visited and held discussions with officials in the following establishments, OVP, PAM, ZRCS, UNDP, WHO, WFP, UNICEF, FAO, MAFF, UNHCR, WVZ, NCMDs, and the Meteorological Department. The common

stand by all these organisations visited was that it was necessary to establish a SADC Disaster Management System. Such a communication network would provide a response system should disasters occur in any member country.

This was a very important mission in which the attachee was coopted. The concerns of the SADC region were the same as those of the attachee except for the scope. The former was concerned with the entire region while the latter looked at Zambia. The principal was however the same, to create a communication network.

This mission provided an opportunity to see the communication linkages between the DMMU and other players in disaster management especially the UN system. Representatives explained how they coordinate their activities among themselves and with the DMMU. They also outlined their individual and corporate roles in managing natural disasters in Zambia. The system that the attachee set to look at unfolded during these contacts.

Being in this delegation and participating in the discussions was a direct contribution to a very important debate on the creation of a receptive system on disaster management for Zambia and the SADC region. This was also important because the debate was really about communication. As a communications scholar, the contributions made were valued. It is rare for development planners to involve development communicators in their planning team. They normally consult them when the plans fail to yield intended results and the planners realise that they might have overlooked the issue of communication. In planning, communication should not be assumed it should be deliberately embodied therein especially in disaster management which depends on an effective communication network for its success. The need to use available communication structures and systems was emphasised. It was also found imperative to have a centre that would be responsible for the coordination of disaster response. Such a system would ensure the use and development of

indigenous communication channels based on the realities obtaining in the SADC member countries.

#### 4.3.3 Campaign to Instal Water Level Warning Markers

On 26<sup>th</sup> February, 2000 Zambezi River Authority (ZRA) opened three out of the six spillway gates on the Kariba Dam to save it from collapsing should the water overflow the walls. This action resulted in the rising of water down stream of above five metres and flooding of up to 1.5 kilometres inland in some places (UNICEF, 2000: 1-2).

The following were the effects of the flooding:

- (a) River gardens were submerged and crops destroyed.
- (b) Banana and pawpaw plantations were submerged.
- (c) Fishponds were destroyed.
- (d) Domesticated and wild animals perished.
- (e) Houses built on the flood plains were destroyed.
- (f) Lodges on the banks of the Zambezi were submerged in water and property destroyed.

The destruction of people's livelihoods caused dissatisfaction among those affected considering that this particular disaster was not natural but caused by human beings. It was not easy for the ZRA to take this particular action. There was an ethical dilemma to consider. There was the wall of Kariba Dam to save and save thousands of industries and people depending on electricity. Down stream there were vulnerable people, installations, livestock, wildlife and farms that were going to be adversely affected by this one action.

It was however, evident that the continued occupation of the flood-prone areas either for dwelling, farming and other businesses like hotels and lodges was becoming dangerous to the people. The DMMU in collaboration with the ZRA

and the Civil Protection Unit of Zimbabwe decided to install Water Level Warning Markers from Kariba Dam down stream on the Zambezi river. This was meant to discourage people from settling or using the marked-off areas for any ventures. It was however, decided that a campaign to sensitize people would precede the action of installing the markers.

The Civil Protection Unit of Zimbabwe which is the government department responsible for disaster management in that country was assigned to mount the campaign there. The DMMU was mandated to carry out the campaign on the Zambian side of the Zambezi river. This author who was at the time attached to the DMMU was assigned to design the campaign to be implemented by the DMMU.

Arising from this assignment, a campaign can be defined as an undertaking by a change agent aimed at persuading the client system to accept and/or cause needed changes for the purpose of ensuring collective responsibility. The core elements in this definition are that in a campaign there must be a change agent and the client system who is the change adopter. There must be elements to be changed which should result into a persuaded agreement or collective responsibility. In the absence of a collective responsibility between the change agent and the change adopter the campaign can not be said to have succeeded.

Kotler and Roberto (1998:6) have defined a social change campaign as:

An organized effort conducted by one group (the change agent) which intends to persuade others (the target adopters) to accept, modify or abandon certain ideas, attitudes, practices and behaviours.

The two definitions are similar. The only major difference is that the definition by Kotler and Roberto tends to present the target adopter as docile and naive. The

assumption is that the change agent is the communicator while the target adopters receive and act on the message.

A common understanding is essential between the change agent and the change adopters for the success of a campaign. Knowledge of a communication campaign is key in communication for development. This particular assignment was a practical undertaking to demonstrate how to plan a campaign given a real situation.

The campaign was designed and submitted to the DMMU for onward transmission to the Permanent Secretary in the OVP. The attachee was able to advise on the campaign strategies to be taken which basically emphasised the following:

- (a) Initial discussions with the civic leaders, politicians and traditional rulers.
- (b) Audience survey and segmentation in order to understand the characteristics of the affected people.
- (c) Designing of campaign messages, strategies and tactics and pre-testing of the same.
- (d) Implementation of the campaign.

#### 4.3.3.1 Reactions to the Campaign Design

The Permanent Secretary in the OVP was quick to respond to the request to mount the campaign. He advised that the target audience were the people who were displaced between 1955 and 1960 during the construction of the Kariba Dam and depended on the fertile banks of the Zambezi for farming. For the Permanent Secretary, this was a sensitive and political issue which transcended the mere campaign objective of protecting people's lives and their assets. It was difficult for him to comprehend a situation where the lodges built on the banks of the Zambezi river which are a tourist attraction and source of revenue for

government, Kafue and Siavonga district councils could be moved to safer places.

The reaction by the Permanent Secretary provided very rich learning experiences. It was obvious that while the campaign was accepted in principle, the Permanent Secretary was worried about the image of the Zambian government if it had to displace people again. The reaction also under-scores the importance of consultation in communication campaigns. It can be further deduced from this situation that one reason why campaigns fail is because of conflict of interest by decision-makers and opinion leaders.

It was satisfying, however, for the attachee to be drawn into resolving a national problem. This shows the importance of practical attachment where students are made to contribute to the process of problem-solving. The knowledge that a student acquires during course work is put to immediate use.

By the time this practical attachment came to an end, the issue of installing warning markers was still very active. The DMMU was involved in consultative meetings with Kafue and Siavonga district councils, ZRA and the Civil Protection Unit of Zimbabwe on the campaign strategies.

#### 4.3.4 Water Hyacinth Project

During the attachment to the DMMU, the attachee was involved in the planning of how to deal with the water hyacinth using the concept of community participation. This was an arrangement involving the UNDP, DMMU and Kafue District Disaster Management Committee.

The concept of community participation as a strategy for managing natural resources is one way of empowering local communities to plan and deal with problems that affect them. Such strategies have been applied in game reserve

management, environmental protection and management, soil conservation, forest conservation and the management of water sources.

The management of the water hyacinth using the concept of community participation was an interesting dimension. The idea of government was not really to manage it, but to get rid of it.

*Eichhornia Crassip*, commonly known as water hyacinth, was brought to Africa from Latin America as an ornamental plant. The water hyacinth is one of the most dreaded sea-weed or water-plant. It is regarded as a weed, menace, hazard and a threat to social and economic development.

The presence of the water hyacinth was first noticed in the Kafubu river in Ndola on the Copperbelt Province in the 1980s. It has now spread to Kafue river where its rapid multiplication has been due to the release of industrial pollutants into the river from the Kafue's Nitrogen Chemicals of Zambia which produces fertilizer. Efforts have been made to remove the water hyacinth from both Kafue and Kafubu rivers, because Zambia has not discovered any economic use for this weed. The efforts have included scooping away the water hyacinth using manual labour and machines. Beetles were imported and released on the weed. The use of beetles did not work because no sooner had they started feeding on the water hyacinth, than the birds descended on them and ate them up.

Professor Keto Mshigeni a renown scientist of botany visited Zambia in August, 2000 at the invitation of the UNDP to advise on the methods of dealing with this weed. Mshigeni has done extensive research work on sea-weed in Tanzania's coastal waters on the Indian Ocean. Following his studies, he has promoted community-based projects on sea-weed farming. There are over 30,000 villagers in Tanzania who are actively involved in sea-weed farming earning over US\$15 million annually (Mshigeni, 1999:14).

According to Mshigeni, the water hyacinth is a vital resource which provides a means of livelihood for people. The water hyacinth bioresource can be transformed into an agent for poverty alleviation. This is the message that was shared with the Kafue District Disaster Management Committee.

Since Zambia regards the water hyacinth as a hazard, the DMMU was involved in this mission to Kafue and was represented by the attachee. We visited Kafue Gorge Power Station and held discussions with the management regarding the threat the weed posed on electricity power generation. We also visited the Kafue District Disaster Management Committee and discussed the possibility of turning the weed into an economic opportunity using community participation as a strategy.

The concept of community participation was accepted by the people we held discussions with. They saw a different dimension of a weed which was regarded as a curse on the Kafue waters into an economic opportunity. The participants in this new dimension were identified as residents of Kafue district who include peasant farmers, those engaged in fishing and members of the Kafue District Disaster Management Committee.

The water hyacinth can be profitably used in the following areas:

- (a) As organic manure.
- (b) As livestock food supplement.
- (c) For biogas energy generation.
- (d) For water purification and sewage treatment.
- (e) For cultivation of mushroom.
- (f) For extraction of fibre.
- (g) For making paper.

This mission was very significant to the student of communication for development. How to communicate an innovation was the basic challenge in this



encounter. Exchanging ideas with the Kafue District Disaster Management Committee as change adopters showed that diffusion of innovation is not easy. The members of this disaster management committee accepted to adopt the innovation after being convinced that the utilization of the water hyacinth for economic gains has worked elsewhere. From this experience, it is clear that the DMMU as a change agent can use persuasion to introduce innovations, particularly in promoting and developing local coping mechanisms during famine.

The value-expectancy theory posits that the value people expect to receive from the object of persuasion controls their attitudes towards that object. Having been persuaded to accept the water hyacinth as an object of value, the people did not regard it as a dreaded weed to be scooped and destroyed but as a resource to be treasured.

#### **4.4 Hardships Experienced**

This practical attachment was allowed by the Permanent Secretary in the OVP on condition that no expenses would be incurred by the DMMU as a result of the students activities. This action caused hardships whenever the student was assignment to represent the DMMU on field trips. He was expected to fend for himself on trips that were not budgeted for .

Practical attachment requires adequate funding. Students who get attached to organisations need to be supported by those organisations because the output directly benefits the organisation of attachment. The benefits by far surpass the material and financial help that the student may require.

## **CHAPTER 5**

### **Problems of the Institution and Attempts to Solve Them**

#### **5.0 Administrative and Operational Problems**

The DMMU faces both administrative and operational problems. These problems affect disaster planning, preparedness, response, mitigation rehabilitation, reconstruction, coordination and the implementation of programmes. Attempts have been made by the DMMU to address these problems. A significant level of success has been scored largely due to staff proficiency, government good will and the cooperation received from stakeholders.

The following are, however, the major problems:

##### **(a) Power to make decisions**

The DMMU is an implementing agency of government on disaster management. The power to make decisions on expenditure, staffing and the establishing of a communications structure is a prerogative of appropriate wings of government.

The Permanent Secretary in the OVP is the controlling officer to whom the NC recommends particular courses of action to be taken in managing natural disasters. The Permanent Secretary may accept, reject, amend or alter the proposal. This affects the urgency to which the DMMU would like to respond to disasters or emergencies. Such action may also compromise professionalism since the final authority does not lie with the professionals in the DMMU.

(b) Legal framework

Disaster management activities undertaken by the DMMU are not backed by any specific Disaster Management Act. Zambia has not enacted a disaster management law to ensure compliance by stakeholders.

Compliance is by agreement not by the dictates of law. Organisations like the Zambia Red Cross Society, UN agencies, line ministries, NGOs, private and public institutions have their own mandates and policies on disasters which guide their actions. They are not answerable to the DMMU because no disaster management law exists to compel them to do so.

The absence of a specific law poses a serious problem to enable the DMMU plan and execute a response mechanism. The DMMU can not commit other organisations during a disaster without specific legal provisions.

(c) Creation of administrative centres

There are three Provincial Disaster Management Centres established in order to decentralise the administration and operation of the DMMU. The following centres were established in 1998:

- (i) Kabwe Centre, which covers Central and Northern Provinces.
- (ii) Choma Centre, which caters for Southern and Western Provinces.
- (iii) Ndola Centre, which is responsible for the Copperbelt, North-Western and Luapula Provinces.

Eastern and Lusaka Provinces are covered by the DMMU Headquarters in Lusaka.

This kind of arrangement is very difficult to administer. Zambia has nine provinces each with its own administrative set-up. The provincial administrative centre for the Northern Province is Kasama. Disasters that occur in that province are discussed in meetings chaired by the Permanent Secretary responsible for the province. In such meetings the Provincial Disaster Management Officer would be absent because such an office is based in Kabwe which is another provincial centre with its own administrative arrangements.

Provincial Disaster Management Officers find it difficult to monitor disasters occurring in the areas for which they have jurisdiction. Their absence in some of the provinces render their activities ineffective. Such provinces depend on already existing structures which are normally used without due regard to the Provincial Disaster Management Unit.

(d) Storage of food relief and equipment

Disaster preparedness requires adequate food and material resources. These need to be stockpiled. Paying for storage can be very expensive if an institution is not using its own warehouses.

The DMMU does not have any warehouse of its own. The food aid received and or bought including equipment are stocked at Sable Transport which is a private company. Sable Transport regards the DMMU as one of the many customers who use their facilities. The continued storage of food stuffs and equipment is not guaranteed. This is a problem that affects proper planning on what to store and how much of it. It also makes monitoring of the safety of the materials difficult.

(e) Disaster database

The DMMU has not developed a comprehensive database. It has also not established a mechanism for collecting, processing and disseminating of information. This makes it difficult to gauge disaster trends, hazards, risks, vulnerabilities and resources. It also gives an impression of disasters as though they were a new phenomena in this country. Without reliable information, it becomes extremely difficult to effectively administer disaster response.

Data on natural disasters are available but scattered in various organisations and communities. The ZRCS has, for example, been operating in Zambia well before independence. It has useful data on how to handle natural disasters. The Meteorological Department processes information on weather which is vital for disaster management planning. The CSO is another organisation which has statistics particularly on population which DMMU can use for planning disaster management response.

Other organisations like the Environmental Council of Zambia (ECZ), Ministry of Health (MOH), Ministry of Agriculture, Food and Fisheries (MAFF), UN agencies, local and international NGOs have relevant information that can be used by the DMMU. Equally and most important, are data found in disaster-prone communities on how to cope with disasters. The absence of collated information makes the work of the DMMU difficult.

(f) Communication and coordination

While communication and coordination appears to be there between the DMMU and government ministries, UN agencies and leading NGOs, communication and coordination with the grass-roots is extremely weak.

Coordinating meetings held involve mostly members of the EWS as discussed in Chapter 7 of this report. In such meetings the vulnerable communities are not represented. This state of affairs perpetuates the top-down approach to communication. The valuable knowledge held by the people who experience the natural disasters is left out.

This is a weakness in relation to having an effective administrative and operational mechanism. The DMMU needs to seriously address the problem of lack of representation of vulnerable communities. Information is required from these communities in order to carry out administrative and operational functions.

(g) Staff strength

There were only four professional members of staff working at the DMMU Headquarters as at 20<sup>th</sup> October, 2000. There were also three Provincial Disaster Management Officers. In terms of coordinating disasters in the whole country, the DMMU can be said to be understaffed.

During the time of this attachment, the Provincial Officer for Central and Northern Provinces was withdrawn from the provincial centre to reinforce staff at the Headquarters. He was there for a period of two months. This meant that disaster management coordination in Central and Northern Provinces was done from Lusaka.

(h) Communication channels

The DMMU is not linked by a Computer Wide Area Network to enable easy access to information. The information held by the organisations that constitute the EWS can not be easily accessed. The stakeholders also find it difficult to quickly obtain information from the DMMU.

The DMMU has also not installed its satellite communication system to help in the collection and dissemination of information. The equipment that includes radiophones, still and video cameras has been sourced.

Communications with provincial centres is by telephone and fax when reporting emergencies. There seems to be no direct link with districts and/or affected areas. This means that information on disasters does not reach the DMMU as quickly as it should. This delays response to such affected areas.

(i) Conflict of interest

There are a number of players in disaster management with varying interests. This has led to competition, distortions and undermining of the efforts made by the DMMU.

The current system is open to abuse by politicians. They use food relief given to their constituencies in order to win support. In most cases they would have played no part in sourcing the food. In such situations the efforts made by the DMMU are not given due credit.

Resistance is growing among NGOs, according to the findings. They feel that the DMMU is getting too involved in programme implementation other than concentrating on policy and coordination. NGOs would want to see

the lead NGOs like PAM, WVZ, ZRCS, and church organisations being involved in the implementation of disaster management programmes with the DMMU as the facilitator.

The argument being advanced is that, emerging trends in managing natural disasters support the role of NGOs as one of the most effective alternative means of achieving an effective communication link between the DMMU and the affected communities. In disaster and emergency situations, NGOs can be used for preparedness, relief and rescue, rehabilitation, reconstruction, mitigation, monitoring and feedback.

The strength of NGOs is that they are community based and they incorporate in their functions opinion leaders. This arrangement helps to infuse grass-roots communication network in the mainstream communication system.

In whatever form conflict is manifested, it de-rails well meant programmes. It also makes it difficult to ensure effective administration of the set programmes. The DMMU has therefore a duty to ensure that a unity of purpose is achieved among all stakeholders.

(j) Disaster management policy

There is no comprehensive disaster management policy document, save for a proposed document which has not yet been approved. This means that there is no clearly defined system and procedures to govern the operation of the DMMU regarding disaster management. The delay by the cabinet in approving the proposed disaster management policy for Zambia is a serious de-service to the stakeholders who are left without clear guidelines.



A policy on disaster management is needed. This will not just guide operations and coordination, but the policy will also help deal with administrative and operational problems. A disaster management policy will also further strengthen the DMMU communication network. Since disaster management rests on coordination and integration of various organisations, a policy will serve as a guide to the stakeholders who will use the policy document as a point of reference.

## **5.1 Institutional Strengths**

Although the DMMU has been in existence for a short period, it has a number of strengths which enables it to respond to disasters with a significant level of success.

The following are the main positive factors:

### **(a) Location of the DMMU**

The DMMU is located in the OVP. This ensures easy coordination with government ministries since the Vice President is head of government. It also ensures a high advocacy level for disaster response. Disaster management enjoys legitimacy if it is linked to the higher offices in the political structure.

### **(b) Donor support**

Donor organisations regard disaster management as a government programme. They are, therefore, willing to channel aid through the DMMU which is a government department. The UNDP and WFP have very strong links with the DMMU regarding aid to disaster victims and for supporting programmes aimed at risk-reduction.

(c) Formation of operative committees

The DMMU works through committees which incorporate the UN agencies, donors, line ministries, NGOs, the media, public and private organisations. This promotes participation by various key players in disaster management. They form an important communication network. This is an important strategy that ensures maximum utilization of the available resources and skills. It also promotes an integrated approach to disaster management.

(d) Decentralised functions

The DMMU has decentralised its functions to three provincial centres. This is an attempt aimed at ensuring participation and close monitoring of aid given to disaster affected communities. In decentralising the administration, the DMMU should also make resources available in order to further strengthen the capacity of the centres to manage natural disasters.

(e) Staff training

The staff at the DMMU are all trained in disaster management. They were trained at Cranfield University Disaster Management Centre in the United Kingdom. This is one of the very few credible universities offering training in disaster management at certificate and masters degree levels. The staff can be said to be qualified to perform their respective duties at the DMMU.

The NCMDS in conjunction with the DMMU and CDMC has trained 137 focal point persons between 1997 and 2000. These are disaster

managers whom the DMMU can depend on in the management of natural disasters. These trained cadres are a positive factor for the DMMU.

The establishment of the in-country disaster management training centre has enhanced the DMMU capacity to train people in disaster management. During the SADC/UN assessment mission in which the attachee participated, the centre was hailed as one of Zambia's greatest achievements in the area of disaster management.

(f) The NGOs network

There are various NGOs working in rural communities through which the DMMU channels disaster relief services. The NGOs get involved in the distribution of food, medicines, clothes and counselling of disaster victims. They constitute a very useful communication network which is close to the vulnerable communities.

According to the 1999 DMMU Annual Report (1999:2), the following are the lead NGOs involved in relief operations.

- (i) Care International,
- (ii) Church Medical Association of Zambia,
- (iii) Adventist Development and Relief Agency,
- (iv) Evangelical Fellowship of Zambia,
- (v) PAM,
- (vi) WVZ, and
- (vii) ZRCS.

Some of these organisations have very strong links with donors and therefore supplement the efforts made by the DMMU. They also have material resources and established infrastructure which can be made use

of. The materials include tents, vehicles, boats, medical and food supplies and buildings. These are very central in the management of natural disasters. NGOs incorporate local people in their operations making them very strong on the ground.

(g) Financial and material resources

The DMMU receives funding from government. There is an annual budgetary allocation of K5 billion for both natural and human-made disasters. The DMMU also receives occasional financial and material support from donors.

There are also community-based resources which provide opportunities for humanitarian activities prior, during and after disasters. These resources include food storage sheds in various districts and communities. These can be used as receiving, storage and distribution centres of food aid. There are also schools, health centres and hospitals that can be used in various ways to help victims of disasters and in the planning of disaster response. There are government departments, private and public institutions with equipment and facilities like vehicles, tents, cooking utensils and feeding facilities, beddings and boats which can be mobilized. The infrastructure in relation to the above is still intact and can be used during emergency operations.

The mobilization of financial and material resources need a deliberate policy and relevant legal provisions. This will further strengthen the administrative and operational functions of the DMMU.

(h) The DMMU proximity to the stakeholders

The DMMU head offices are situated in Lusaka the capital city of Zambia. This entails close proximity to the main stakeholders whose head offices are also in Lusaka. These included government ministries, UN agencies, and other EWS. This is an advantage in that it provides easy access and contact with those organisations. Foreign visitors with interest in disaster management also find it easy to reach the DMMU offices.

## 5.2 Attempts to Solve the Problems

Having identified the main problems and the institutional strengths, it is imperative to look at the efforts made by the DMMU to deal with the problems. The efforts made have generally concentrated on capacity building and stakeholder participation as discussed below.

### 5.2.1 Capacity Building

In 1994, the GRZ approached the UNDP to assist with financial and material resources in setting-up a unit within government to deal with disaster management functions. This appeal was necessitated by the apparent problems faced in the coordination of food relief operations following the 1991/92 drought which caused food shortages.

The UNDP contracted CDMC to provide a project formulation document, which outlined the strategies and objectives for strengthening of the technical capacity for disaster management in the OVP. The project document was officially signed in September 1997 between the GRZ and UNDP. A total of US\$568,000 was allocated for a period of three years up to the end of 1999 according to the DMMU ZAM/94/004 Terminal Report on Strengthening the Technical Capacity for Disaster Management in the OVP.

This agreement between the GRZ and UNDP resulted in a number of benefits in relation to capacity building. In terms of staff development, six DMMU members of staff were trained at Cranfield University Disaster Management Centre. The DMMU in conjunction with the NCMDs and CDMC run courses in disaster management from 1997 to 1999.

Through this project, the DMMU was able to receive the following equipment as shown in Table1.

**Table 1**

*Major items of equipment provided*

Quantity	Description
2	Dell Optiplex GM 575 PC
3	Compaq Desk Pro PC
4	Compaq Presario 2266 PCs
2	Compaq Armada Laptops
5	HP laser jet 5000 N Printers
1	HP laser jet 4 plus Printer
4	Panasonic UF 332 faxes
3	Ricoh FT 1205 photocopier
1	Ricoh FT 7650 photocopier
1	Rexel 250 paper shredder
1	4P Scan jet 6200C Scanner
3	4 x 4 Toyota Landcruisers HT
2	4 x 4 Toyota landcruisers S/W
2	Mitsubishi Pajeros
10	Communication equipment set

Source: *DMMU, ZAM/94/004 Terminal Report*

The UNDP support has made it possible for the DMMU to operate in its formative stage. It has the basic equipment to enable it operate and run activities both at Headquarters and in the three provincial centres.

The DMMU has also very strong links with the WFP which has also assisted in the area of capacity building. The WFP has supported staff development. During the period of this attachment, all members of staff attended various short courses abroad and within the SADC countries. One member of staff was sent for a masters degree programme in disaster management. Two trucks which were donated by WFP and previously used by PAM are now being used by the DMMU for food relief deliveries to disaster areas.

#### 5.2.2 Stakeholder Participation

Disaster management requires the participation of a cross section of people and organisations. These bring into the communications system expert knowledge and skills. Stakeholders need to cooperate in order to have a corporate approach that puts into consideration various sectors of human endeavour. This is important because natural disasters affect the economy, social, political cultural and technological development. A multi-disciplinary approach becomes inevitable.

The DMMU has used the strategy of stakeholder participation to tackle both administrative and operational problems. Knowledge is not confined to any one organisation, but is shared among the players. Various organisations are incorporated in coordinating committees.

#### 5.2.3 Decentralisation

The operational framework for disaster response is decentralised from cabinet up to local community level. This is a deliberate operational model for the DMMU to

spread its operational and coordinational roles. Such a response mechanism is meant to create disaster awareness and broad-based participation.

Decentralisation aims at empowering people particularly those in disaster-prone areas. People are empowered to deal with disasters with maximum reliance on available local resources. Both human and material resources get mobilized to deal with a shared community problem. This deliberate move of decentralising power of decision-making is very cardinal because the first action taken by the affected people has a bearing on the success or failure of future actions. It is, therefore, necessary that the people get involved in the defining of the disaster threat, planning, execution of the plans, evaluation and monitoring.

Decentralisation should not necessarily mean the establishment of Disaster Management and Mitigation Units at various levels, it should mean increased involvement of various stakeholders in the disaster management committees at these levels.

In order for decentralisation to serve as one of the strong strategies used by the DMMU to deal with administrative and operational problems, it is anticipated that:

- (a) Provincial Disaster Management Units will be adequately funded and equipped to provide necessary resources in the event of a disaster.
- (b) Structures at district and community levels will be strengthened to enable them develop a strong response and coping mechanism.
- (c) There will be an open communication system that will promote transactional communication.
- (d) Devolution will be truly exercised with the DMMU Headquarters playing mostly a facilitating and coordinating role.



#### 5.2.4 Legal and Policy Documents

The DMMU has managed to produce two documents to guide and authenticate disaster management in Zambia. The two documents are, *Disaster Management and Mitigation Draft Bill and a Proposed Disaster Management Policy for Zambia*. Although these documents have been circulated to stakeholders, they have not yet been endorsed by government.

The DMMU, however, closely follows the proposed disaster management policy. This has helped to streamline the operation and to give it a direction and purpose. It is hoped that when the proposed policy document gets government consent and when a Disaster Management Bill becomes law, disaster management will have the necessary legal backing and systematic procedures.

#### 5.2.5 Disaster Management Leadership Training

In order to deal with administrative and operational problems, the DMMU organised disaster management courses involving community leaders. The PAID-ESA was contracted to undertake the training. Apart from conducting the courses, PAID-ESA also prepared training materials and modules which have now become the property of the DMMU.

This community leadership training was supported by the WFP which provided the funding and other necessary logistics. The training was aimed at providing necessary knowledge and skills. It was anticipated that the trained leaders drawn from communities would be in the forefront when dealing with problems caused by disasters.

### 5.2.6 Communication Equipment

Information is important in disaster management. When disasters occur they must be responded to quickly. This is only possible if there are effective and efficient means of receiving and disseminating information.

The DMMU has procured communications equipment. This will facilitate communicate with the field officers. The radio communication system will be installed at the DMMU, Provincial Disaster Management Units and in selected centres. The DMMU vehicles will also be fitted with radiophones. This will ease the problem of communication and will ensure quick reporting of natural disaster when they occur.

A number of countries use radio systems to warn people concerning on-coming disasters. In Bangladesh a radio system is used to provide disaster warning concerning cyclones. The Cyclone Preparedness Programme, a partnership between the government and the Bangladesh Red Cross Society maintains the warning system with trained community volunteers (UNDP/DHA, 1997:63).

Use of local radio increases public awareness. The public stay tuned to the radio for instructions. This reduces chaos and enables the people to take correct action. Zambia needs this approach during disasters like cholera epidemics and during floods. It is anticipated that there will be a deliberate policy to link the DMMU communication system with community radios and the mainstream radio.

Having liberalised the air waves in 1989, Zambia has seen the establishment of community radio stations particularly during the 1990s. The radio stations include:

- (a) Yatsani Radio in Lusaka,
- (b) Chikuni Radio in Monze,
- (c) Radio Ichengelo in Kitwe,

- (d) Radio Maria in Chipata,
- (e) Radio Lyambayi in Mongu,
- (f) Radio Chikaya in Lundazi, and
- (g) Mazabuka Radio in Mazabuka.

The above community radio stations are a very important resource with which the DMMU should establish links. The community radio stations can be used to disseminate news and warning messages on disasters. People would also use this particular mass medium to discuss developmental issues on how to prepare, respond and mitigate against disasters using their local capacities.

Community radios are important in that they are run and managed by the local people themselves. They deal with the felt-needs of the people, use the language people are familiar with and promote participatory communication.

The current practice where information on floods affecting a specific area would be disseminated using the mainstream media may not be as effective as using localised media.

The use of mainstream media in Zambia failed to provide an effective warning when the ZRA opened the floodgates on the Kariba Dam. The affected people down-stream claimed that they were not warned. The use of radio and television were inappropriate because they were not localized. Use of local media would have been appropriate. It is anticipated that, in future the DMMU will utilise the services of both Chikuni Radio and Mazabuka Radio Stations. A multi-media approach which should also take into account grass-roots communication should however be the main approach.

## CHAPTER 6

### Student's Input

#### 6.0 Challenges and Opportunities

The practical attachment to the DMMU provided challenges and opportunities. There were challenges offered to deal with problems in the administration and management of the organisation. There were also opportunities to blend theory with practice in various aspects regarding disaster management. Contributing to the problem-solving process is one of the main challenges and opportunities accorded to students on attachment. They are not regarded as *tabula rasa*, but as people who have contributions to make towards finding solutions to organisational and/or community problems.

The students tackle particular problems that they have been assigned to deal with. They may also observe and experience certain problems or shortcomings in the organisation and/or community. When such a thing happens, the students undertake the challenges as part of the requirements of the practical attachment and take appropriate action.

Practical attachment is not only about problem-solving. The students also contribute towards developing the capacity of the organisation of attachment to deal with the activities for which it was established. They also evaluate the organisational programmes against the aims and objects set and recommend courses of action to deal with the deviations.

During this attachment, the following were the specific roles played by the attachee in contributing to the process of problem-solving and in the development of the organisation of attachment:

- (a) Discussing and offering suggestions to the DMMU on how to deal with administrative and operational problems. These were done during staff meetings and during consultations with individual members of staff.
- (b) Carrying out specific assignments aimed at resolving particular problems. This was done in order to seek independent and expert advice from the attachee.
- (c) Handling cases and requests made by people and organisations concerning humanitarian aid. The attachee was able to provide advice and/or carry out an assessment to determine their vulnerabilities and eligibility to receive material aid.
- (d) Representing the DMMU on assessment and fact-finding missions. This symbolised a very high level of trust that the student was capable of articulating the views and the vision of the organisation. The student was able to write reports and submit them to the DMMU. In these reports there were proposed follow-up actions assigned to the DMMU to undertake. The student made recommendations on how to implement the assigned responsibilities.
- (e) Making suggestions and recommendations on how to promote a sustainable communication network in disaster management. This contribution was significant in that the student was dealing with long-term concerns that would promote participatory communication.
- (f) Doing administrative work which included sourcing office requirement and handling communication particularly telephone inquiries and correspondence. The student helped in off-loading the work-load from the staff. There were only four members of staff dealing with disaster management. These staff levels were inadequate.

## **6.1 Towards an Effective Communication Network**

The period 1970-1980 was characterised in the field of development as a search for another development. This was an effort to move from the old paradigm of the North-South trickle effect, where development was associated with modernity which had taken place in the North and had to trickle down to countries of the South.

In the same vein communication was fashioned on the ideals and principles of the North. Communication was viewed as having principles which could be universally applied. The North did not take into account the developments taking place in the South in the field of communication.

Communication channels like the use of drums, songs, dances and folktales were sneered at and were regarded as backward. Missionaries, for example, did not allow the use of drums in churches. Drums were associated with African spiritualism. They were regarded as channels used to communicate with the devil other than with God.

A search for another communication was also inevitable. It was a search for meaning and appropriateness in communication. This is a dynamic and continuous process which is being applied in communication for development. During the attachment, the search for appropriate communication was central. This was cardinal because the effectiveness of disaster management depends on meaningful communication. Any flaws in communication would endanger people's lives.

Discussions with the DMMU and selected stakeholders were held aimed at developing an effective communication network. The attachee regarded the search for an appropriate communication as a major contribution. In a bid to find an effective communication network, the attachee suggested the appointment of

disaster management focal point persons in all government ministries. These persons would deal with matters relating to disasters. They would be the DMMU contact persons. The same arrangements would apply to the NGOs and other organisations involved in disaster management.

This move would ensure participation and remove inertia that tends to characterise some government ministries which feel that they have no specific role to play in disaster management. This would also improve networking between the DMMU and key players in disaster management.

Mezzana (1996:183) in his article *Grass-roots Communication in West Africa*, discusses three themes necessary for grass-roots communication.

- (a) Today's societies have a number of communication networks.
- (b) Networks with social roots are considered a powerful force for communication.
- (c) Grass-roots communication networks are more wide-spread than is often thought.

In the above themes, Mezzana recognises the need to take into account various communication network systems. He deliberately considers the importance of grass-roots communication because these are culturally designed.

The DMMU has been advised, in this report, to consider developing very close ties with the vulnerable communities. These communities have communication networks which have been developed over a period of time and have been used to communicate within the community and with the external environment. The use and development of such networks is one way of ensuring appropriateness in communication.

Broad-based consultation is yet another important aspect towards an effective communication network. Consultations should not be done on an *ad-hoc* basis, they should be part of the whole process of disaster management communication. Consultation should not only be at super-scale level between the DMMU and members of the EWS, it should include the vulnerable communities as well. The communication pattern that ignores them will not lead to an effective communication network.

#### 6.1.1 Communication and Information Management

Information gathering and dissemination was noted as a problem experienced by DMMU. As an input in trying to solve this problem, the DMMU was advised to establish a desk to be responsible for research. Relevant data need to be gathered, processed and disseminated so that the operations of the DMMU are based on researched data.

By the time the attachment came to an end, there was a new organisational structure submitted by the DMMU with a proposed position of a research officer. This submission was received by the Permanent Secretary in the OVP for consideration.

Gathering information through research is not an end in itself. It must be relevant to the developmental needs of society. The information must also be disseminated to the right audiences, in the right form, at the right time and using appropriate channels. This important and central role of the DMMU has not been seriously attended to. There is no officer responsible for communication. The DMMU needs a communications expert who should be able to design messages, produce communication products, develop and use appropriate communication channels including grass-roots communication.



Vulnerable communities need to embark on risk-reduction projects and programmes. This can only be possible if they have the information. The failure in managing disasters can be attributed to flaws in communication flow. Communication for development is an integral part of any well-meant development programme. It is one way of ensuring that the information the vulnerable people receive is relevant to their developmental needs.

Information on natural disasters should be gathered, stored and disseminated. These important aspects in communication need to be assigned to specific offices within the DMMU. This will also assist those who seek for information from the DMMU. These suggestions are important issues which if taken into account would improve the information system. The DMMU should be the major custodian of data on disasters.

#### 6.1.2 Disaster Communication: Channels and Products

Very few messages will impact their audiences if only a single channel carries them (Mody, 1991:178). The use of multi-media and multiple-presentation spells better chances of the messages being received and understood. The media are an important resource for managing natural disasters. They can be used to disseminate information on disasters. When a disaster occurs people turn to the mass media for information.

The DMMU deals with a cross section of the Zambian society. It follows, therefore, that no single medium can be appropriate to all sectors and in every situation. A multi-media approach is necessary for the DMMU to effectively reach the intended audiences. The DMMU has been implored to use a multi-media approach. This should involve the use of radio, television and newspapers. This approach can be very effective when communicating to an ubiquitous and heterogeneous audience. Farmers can, for example, be warned

of inadequate rains in a particular season and be advised to plant early maturing crops and/or drought-resistant crops.

Traditional communication channels are normally ignored without realising that they are wide-spread, understood and appreciated by the local people. The fact that people have survived onslaughts of different disasters means that they have been able to communicate and share information on how to cope.

People in the Zambian villages would tell the encroachment of drought and the coming of heavy rains or storms. They would predict outbreaks of diseases or the possibility of swarms of locusts invading their crops that particular year. How they get to know, and how this is communicated matters a lot in the life of the community.

The DMMU needs to document this rich wisdom if their intervention is going to be appreciated by the local people. There is need for the fusion of old and new methods of sending and receiving messages. The use of traditional media like drums, songs and dance to warn people of the dangers of HIV/AIDS would be as effective as using the mass media. The channels used in local communities are being emphasised by the student in order to help the DMMU to consider various options available as channels of communication. Each time a natural disaster occurs, people in that particular area would communicate and discuss the disaster threat, the extent, the gravity, the effects and how to cope with it. The channels they use are therefore important and should not be ignored.

Another important type of communication that is useful in the promotion of mitigation is interpersonal communication. This is centred on personal contacts between the change agents and the change adopters. Interpersonal communication is very effective when dealing with people who are slow to change, and/or to adopt innovations.

Another dimension in which interpersonal communication would be useful is by considering the structural paradigm. This paradigm which gained recognition in the mid-1970 (Smith, 1992:42) asserts that the severity of disaster-impact is more related to the scale of human exploitation than to the stresses imposed by nature. The people affected by the disasters feel marginalised and associate their vulnerability to social and economic inequality. They believed that the solution to reducing the impact of disasters lies in structural changes for which they have little or no control.

Interpersonal communication would bring confidence in such people. Solutions to problems caused by disasters is best achieved from within. The DMMU needs to use its communication network to reach such communities which have resigned themselves to fate. Communities should be helped to develop confidence in themselves.

There are places in Zambia which face famine on yearly basis due to drought and their traditional occupations like hunting. The Luano Valley in Central Province of Zambia is a drought-prone area. Even when the rains are favourable to support crop growth, people spend more time hunting than farming. There have been continuous appeals to the DMMU for food relief. These appeals made by members of parliament and traditional rulers do not promote any sustainable development to improve people's livelihoods. Using the mass media to promote sustainable development and reduce their vulnerability to famine would be inappropriate. The people may not all own radios or have access to newspapers. Interpersonal communication would be more suitable for the people of Luano Valley and such similar places. The DMMU need to consider such approaches in trying to achieve an effective communication network.

The attachee did suggest the introduction of a newsletter on disasters. This would provide information and education on disasters. This suggestion was well

received by the DMMU. The production of a newsletter would take into account various activities relating to disaster management.

There is very little information on what the DMMU does. People tend to associate the DMMU with food relief distribution. The use of leaflets and brochures to inform the general public was suggested. Such communication products would promote community participation because people would have a better understanding of the DMMU main activities. People can only be useful to the DMMU if they are availed with information in these leaflets and brochures.

## **6.2 Promoting a Developmental Approach to Disaster Management**

Disaster management has for a long time been pre-occupied with humanitarian aid of providing food relief, clothing, medical and shelter to the affected communities. This orientation needs to change because it is not sustainable. It is based on the principles of social welfare provisions of giving charity to the needy.

The new dispensation should be one where the people are able to charter their own destiny in managing disasters. Although this orientation would face problems due to limited resources, there are still many community resources that can be developed and help to build an indigenous response mechanism.

A developmental orientation to disaster management points towards the capability of people to plan, control, develop and utilise their resources. It is also oriented towards the maximum participation of stakeholders in managing disasters.

The following elements should be incorporated in disaster management to make it sustainable.

- (a) Dealing with the actual problems caused by disasters as experienced and

expressed by the people themselves. The affected people need to define and prioritise their needs.

- (b) Improving the capacity of the vulnerable communities to enable them handle problems caused by natural disasters. Communities need to be empowered with necessary knowledge, skills and resources.
- (c) Incorporating disasters in the national and sectoral plans. Disasters should be seen as inevitable and should therefore be planned for. This includes both slow-onset and rapid-onset disasters.
- (d) Preparing communication plans so that in the event of a disaster information would be quickly disseminated. These plans should be occasionally tried in simulation exercises to test their suitability.
- (e) Securing food stocks and disaster response materials at national, provincial and district levels in anticipation of disasters.
- (f) Strengthening coping mechanisms particularly at community level. This would include diversification of crops and promoting appropriate food and eating habits.
- (g) Promoting community participation in defining the disaster threat and prioritising options to be taken in carrying out mitigation measures.
- (h) Developing and relying on local resources both human and material. External resources should only be deemed as a supplement to local resources.
- (i) Having a communication structure that is receptive to the needs of the people and incorporates grass-roots communication.

- (j) Securing a steady source of funding. Funds are a major resource in disaster management. Materials and equipment required during a disaster or emergency can easily be secured if money is readily available.
- (k) Having an informed community. Ignorance is the worst enemy of disaster management because during disaster people perish due to lack of knowledge.
- (l) Maintaining links with donors and humanitarian aid agencies. These are very important during major disasters. They provide material, personnel funding and technical advice. They supplement local efforts and support risk-reduction programmes.

Disaster management should be centred on the above factors. This is important because the work of the DMMU should transcend the immediate concerns of disaster relief. The DMMU as a national body should be pre-occupied with the establishment of a receptive and sustainable disaster management system.

The attachee has outlined the above factors as a way of helping the DMMU base its work on particular principles and concerns. This will make disaster management in Zambia become pro-active and not just being re-active.

### **6.3 Promotion of a Broad-based Communication Network**

The Zambian government has established a disaster management structure which appears to be broad-based. There are, however, problems in the use of the structure. When there are disasters, the affected people appeal for assistance directly to the OVP in Lusaka. The established disaster management committees at provincial and district levels are normally ignored.

As an input by the student in resolving this problem, a feasibility study has been suggested because none was done prior to coming up with the structure. A structure like the one currently in place requires very broad consultations.

Stakeholders to be consulted should have included government ministries, NGOs, traditional rulers, selected vulnerable communities, UN agencies, universities and colleges, individuals, private and public institutions. Such an approach would portray the communication patterns, social, economic, cultural and political realities of Zambia.

While it is greatly appreciated that the CDMC worked out the current disaster management structure, a comprehensive study was not carried out. A review of the structure is therefore inevitable. An organisational structure is only important if it is understood and used. This does not appear to be the case with the current disaster management structure.

#### **6.4 Staff Responsibilities**

The DMMU organisational structure is thin rendering itself inadequate to effectively deal with disaster management. The structure provides for operative staff whose duties are of a general nature. The need for specialisation within the DMMU is important. There are no specific sections responsible for particular duties. The officers need to be assigned to specific areas in disaster management to which they should be responsible and accountable. This will give the operations a pattern and become easy to foster a communication network.

In order to provide an input, the attachee has proposed four main sections within the DMMU to oversee various aspects of disaster management. The following are the proposed sections:

- (a) Relief and Development,
- (b) Administration and Logistic Management,

- (c) Communication and Information Management, and
- (d) Research and Training.

These sections would enable the DMMU get focused on the actual concerns of disaster management. This will be an improvement on some of the current position which do not seem to be focussed on disasters. Positions like Senior Agricultural Economist, Senior Sociologist and Administrative Officer are not disaster specific.

- (a) Relief and Development.

This will be a key section in the establishment. It will be responsible for disaster preparedness, response, rehabilitation, reconstruction and mitigation. This section will have very close ties with operative committees in order to provide timely humanitarian aid. Apart from the established committees at national, provincial and district levels, the section would also establish links with traditional local structures at community level.

The relief and development section will also be pre-occupied with promoting programmes and projects which should include the following:

- (i) crop diversification and food security,
- (ii) water cropping through dam construction and establishment of water points,
- (iii) vulnerability assessment and hazard mapping,
- (iv) flood-proofing,
- (v) land use planning,
- (vi) reforestation,
- (vii) developing traditional coping mechanisms, and
- (viii) advocating for the inclusion of disaster issues in development policies and legislation.



## (b) Administration and Logistic Management

This section will be responsible for all administrative and logistic support in disaster management. It will be responsible for staff matters, office equipment, finances and the procurement of materials required for disaster response and operations. The section will have to work very closely with the provincial and district administration in order to secure the needed logistics particularly relating to warehouses, transport and personnel. When these are put in place and readily available, they ensure disaster preparedness. This section will ensure the availability of resources so that natural disasters can be responded to effectively.

## (c) Communication and Information Management

This section will be responsible for the dissemination of information to the stakeholders including the vulnerable communities. The section will be responsible for the promotion of participatory communication which is very important in disaster management. The public relations functions will be performed by this section to ensure that the proper image of the DMMU is portrayed and maintained.

The communication and information management section will be responsible for carrying out briefings, and in this regard, will work closely with the media. The media are very important in carrying out information on disasters.

Communication products like posters, leaflets, brochures, flyers, newsletters, magazines and billboards will be the responsibility of this section. These products will be particularly important when carrying out communication campaigns. Loss of property, life and damage to the environment can be reduced or prevented if proper campaigns are carried out.

The information to be disseminated must be in the form in which it can be easily accessed and understood. This section will be responsible for processing of

information and providing a communication network that will promote the dissemination of information. The section will therefore manage an effective computer system for processing, storing and transmitting of data. Linkages will also be maintained with vulnerable communities in order to promote grass-roots communication.

(d) Research and Training

This section will be responsible for gathering data for planning purposes. Both quantitative and qualitative data will be collected. Disaster preparedness, response and mitigation need to be based on researched facts other than on common-sense. Research in some of the following areas would be essential:

- (i) communication network in disaster management,
- (ii) community response and coping mechanisms,
- (iii) disasters and development,
- (iv) the media and disasters,
- (v) gender and disaster management,
- (vi) post-disaster effects,
- (vii) cost-benefit dimensions of disaster rehabilitation and reconstruction,
- (viii) early warning systems,
- (ix) psychological impact of disasters, and
- (x) assessment of emergency and recovery institutions.

The DMMU needs to maintain a database. To this effect, the attachee advised the institution to establish a library that would contain research materials and other literature on disasters. Such data would also be important for scholars, humanitarian agencies and decision-makers.

Training is an important aspect of disaster management. It ensures the promotion of an informed community. This section will oversee training of

disaster managers and community leaders. It will involve close cooperation with training institutions particularly the in-country DMTC. Without a section for research and training, this function can not be effectively and efficiently carried out. It is hoped that the DMMU will pursue the establishment of the section in order to ensure efficiency in its operations.

## **6.5 Reactions by the DMMU to the Suggestions**

The DMMU provided open fora for discussions on problems noticed by the attachee. This is one positive aspect which has helped the organisation deal with various aspects of disaster management. According to the Weicks theory, organisations make decisions based on the information obtained from the environment. The DMMU listens and takes advise. The organisation is committed to ensuring success in the management of disaster.

The attachment provided the DMMU an opportunity to have views from a person outside the establishment. The reactions to the suggestions were very positive. Suggestions on communication network and channels were accepted. The broadening of the DMMU structure was seen as vital and providing a much wider scope for operation.

According to the DMMU management, the suggestions were important, the student was assured that the suggestions that can be implemented by the DMMU would be implemented. The production of a disaster newsletter or magazine was cited as one activity that the DMMU would carry out. Other suggestions and recommendations made that required the consent of the Permanent Secretary responsible for the DMMU would be referred accordingly. The management requested for the PAR to enable them study it carefully and make informed decisions.

## **CHAPTER 7**

### **Discussion of the Findings and Experiences**

#### **7.0 Findings and Experiences: An Overview**

The practical attachment to the DMMU was concerned with the communication network in managing natural disasters. Important findings emanating from the students involvement in practical work have come to light.

The findings contained herein are in the area of communication, human and material resources, disasters and development and the development of a sustainable disaster management system. From the findings and experiences, a projection of future trends has been discussed. The future of disaster management has provided challenges whose solutions depend on what preparations society is putting in place now. The finding, however, point to the inadequacy of disaster management preparedness in Zambia.

A number of factors have been discussed in this regard. Central to these factors is lack of an effective communication network which is supported by an elaborate organisational structure. While the DMMU maintains regular contacts with line ministries, lead NGOs, UN agencies and other members of the EWS, there appears to be no deliberate linkages established with the vulnerable communities.

The establishment of the DMMU in 1997 was a very positive step taken by the Zambian government. All the 20 people interviewed representing 100% said that they were happy with the establishment of the organisation. In these in-depth interviews, reasons were explored for their answer.

The findings show that the DMMU is necessary for dealing with disaster management. The DMMU plays very significant roles of disaster management coordination and resource mobilisation. The creation of the DMMU means the institutionalisation of disaster management in Zambia.

## **7.1 Practical Attachment: Theory and Practice**

Disaster managers and those involved in humanitarian aid activities have tended to replicate social welfare approaches of offering aid to the vulnerable people. The people have merely been recipients of aid. The emphasis on the relief of distress provided by external organisations kills people's initiatives and promotes dependency.

The problem of perpetual dependence characterises the poor and needy people. Students of communication for development strive to promote people's participation in order to ensure self-reliance. Fieldwork practice should ideally feedback into theory. Communication theories should be made more relevant to the actual developmental needs of society.

This practical attachment was based on the blending of theory with practice. Relating theory with practice is a desired goal in communication for development. The findings were that the DMMU aims at promoting participatory communication. This is an important principle in theories of communication. The establishment of various operative committees and the decentralisation of operation is a move towards promoting this participation.

## **7.2 Disaster Management Committees**

There are various committees created for managing natural disasters in Zambia. There are committees at headquarters, provincial, district and community levels. Membership to the committees is drawn from different organisations. Opinion

leaders also get coopted in these committees especially at district and community levels. This is done in order to promote participatory communication and to mobilize human and material resources.

The committees include:

(a) National Disaster Management Committee (NDMC).

The NDMC is a cabinet committee composed of key line ministries. This is the supreme policy-making body for disaster management. The following ministers sit on this committee; Minister of Defence, Minister Without Portfolio, Minister of Home Affairs and Minister of Communications and Transport. Others are Ministers of Agriculture, Food and Fisheries; Energy and Water Development; Finance and Economic Development; Local Government and Housing; Community Development and Social Services; Works and Supply; Mines and Mineral Development; Health; and Environment and Natural Resources. This committee is chaired by the Vice President .

The main functions of the NDMC is to formulate national disaster policy, recommend to the President the declaration of a national disaster, endorse national plans and regulations, and mobilise resources for disaster management.

(b) Disaster Management Technical Committee

This committee comprises permanent secretaries whose ministers sit on the NDMC. The committee also coopts technical staff from line ministries, UN agencies, NGOs and utility companies. It is the main advisory committee to the NDMC. This committee is chaired by the Permanent Secretary in the OVP with the DMMU serving as the secretariat.

(c) Provincial Disaster Management Committee (PDMC)

The PDMCs are technical committees at provincial level that comprise heads of government departments and NGOs. It is a link between the national level objectives and local needs and priorities. The committees are chaired by the provincial permanent secretaries with the Provincial Disaster Management Officer providing the secretarial duties.

The functions of the committees are to plan for disaster management in the province, mobilise resources, collect and disseminate information, promote public awareness, respond to disasters and carry out training programmes.

(d) District Disaster Management Committee (DDMC)

The DDMCs are technical committees at district level comprising key government departments, NGOs, media representatives and utility organisations. These committees deal directly with vulnerable communities. They aim at saving life, property and the environment. The DAs are responsible for chairing these meetings. The secretary is chosen from among the committee members.

Its functions are to plan and prepare for disaster management in the district. The DDMCs ensure that information on disaster is quickly disseminated to the PDMC. The DDMC also mobilises resources, deals with disaster management training, and implements public information and public awareness programmes.

(e) Community/satellite level committees

These are committees formed at community level in order to spear-head disaster response. Members of the committees include traditional rulers and other influential people in the community. Members decide who should chair the committee.

The functions of these community-based committees are to respond to disasters, to carry out public awareness campaigns and to plan for disasters.

#### 7.2.1 Effectiveness of the Committees

The organisational structure for disaster management was not a product of a feasibility study. It is merely a general model for disaster management used in developing countries. There is need to consider peculiarities of each country. This explains why most of these committees do not actually exist. During discussions with the people listed at Appendix 1, 15 out of 20 representing 75% favoured the use of already existing structures at provincial and district levels other than creating new committees.

There are also coordinating committees which bring together various organisations particularly members of the EWS. In these meetings the focus is on how to mobilise disaster response. From the findings and what was seen during the attachment, there are records of meetings and activities of these committees at the DMMU. There are however no records of the activities of the committees provided for in the disaster management organisational chart, particularly with regard to PDMCs.

A visit to Kafue District Disaster Management Committee however revealed a strong communication network. According to council officials who were interviewed, the committee works closely with farmer-groups and those involved in fishing. They use the principle of community participation to deal with disasters like floods and the water hyacinth.

The lesson that can be drawn from this experience is that disaster management committees need to incorporate the grass-roots communication. The committees can only address the needs of vulnerable communities if they maintain lines of communication with these communities.



### 7.3 Policy and Legal Framework

The legality of the disaster management activities rests on specific policy pronouncements and legal provisions. These allow certain actions to be undertaken in disaster preparedness, response, reconstruction, rehabilitation and mitigation. In the same vein, policy and legal provisions prohibit particular actions deemed disastrous to the people and the environment.

It was established during the attachment that Zambia has currently no comprehensive disaster management policy. During this short period of its existence, the DMMU has, however, managed to produce a proposed *Disaster Management Policy Document*. A proposed *Disaster Management and Mitigation Bill* has also been prepared and submitted to government by the DMMU.

#### 7.3.1 The Disaster Management Policy Document

The disaster management policy has been designed to:

Provide an effective safety-net in time of emergency and disaster by strengthening national capacity, in order to protect lives, livelihoods, property, the environment and the economy (CDM, 2000:30).

In order to achieve this ideal, the disaster management policy intends to apply a cost-effective, practical, sustainable, developmental and socially desirable multi-sectoral approach with a strong community participation component. The policy addresses important issues of sustainability and an effective communication network.

It is therefore important for the appropriate arms of government to officially put in place the policy in order to guide disaster management operations. According to

the findings, stakeholders do not have a government document to refer to when dealing with natural disasters. This has caused problems for the DMMU to give guidance to the many people, organisations and communities who need such help.

### 7.3.2 The Disaster Management and Mitigation Draft Bill

National governments take deliberate action to regulate disaster management. They enact disaster management laws. It was established that Zambia has not enacted a specific disaster management law. Legislation, however, exists for declaring of a state of emergency which can also be used in disaster situations to declare a particular event a natural disaster.

The Draft Bill which has been proposed by the DMMU has the following principal objective:

To establish and provide for the operation of a system for the anticipation, coordination and control of disaster situations and the organisation of relief.

The declaration of the Draft Bill as quoted above addresses the communication network as central in disaster management. When the Draft Bill becomes law, it will enable the DMMU enforce compliance. Further provisions under section 13, subsection 1(a), (b) and (c) have strengthened the envisaged coordination.

According to the provisions of Section 13, the DMMU National Coordinator may:

- (a) require in writing any government department or ministry, organisation, authority or person, or body of persons, to furnish the DMMU such information required for the purpose of disaster preparedness, prevention as the NC may deem necessary;

- (b) during the existence of a disaster declaration, acquire vehicles, equipment, property, supplies and other materials necessary to mitigate the disasters; and,
- (c) direct in writing a council, statutory corporation, utility, person or body to institute, enforce, take or administer necessary measures to prepare, prevent or mitigate a disaster.

Coordination of activities in emergencies and disaster situations require a legally constituted body to manage the operations. Such an organisation can, by the provisions of the law, mobilise resources and personnel to perform particular duties. The communication network particularly the organisational structure is given legal powers to ensure coordination. Operative committees also become legally constituted.

#### **7.4 Effectiveness of the EWS**

Early warning is a set of activities for effective and informed communication to enable people understand an approaching hazard and the feasibility of protecting their common social and economic assets. Early warning ensures the creation of community awareness about hazards. The aim is to ensure that people respond in an appropriate manner.

Technology is essential in early warning. It involves the use of machinery for remote sensing, use of satellite to determine weather patterns and use of measuring devices to determine the gravity or intensity of a particular hazard. As important as modern technology is for effective early warning, the knowledge of grass-roots people on disasters is cardinal.

It is, therefore, important that the persons asked to gather information must be in a position to understand the inner working of the community. They must

understand the fundamental diversity of vulnerability found within the community. According to Walker (1989:148), the information gatherers must be members of the community being examined. They must speak the local language and understand local customs.

The argument being advanced is that early warning should be interactive as well as participatory and should be part of a communication network that is receptive and addresses community concerns.

Early warning should not be seen as merely information-gathering on approaching hazards. It is what to do with the information that matters. The information received from the Meteorological Department warning of impending drought without telling people what to do is not useful information. Emphasis on human capabilities should be an essential part of early warning.

There is need for coordinated response between the EWS and the beneficiaries. This should culminate into a communication system capable of developing appropriate media for the dissemination of information. The communication channels so developed must be functional during, after and before disasters. This will help to guide what action to take when there is a disaster and what measures to embark upon to mitigate against them. Such an approach would reduce the impact of disasters when they occur.

#### 7.4.1 National Early Warning Unit

The National Early Warning Unit (NEWU) was established in 1982 with financial support from the Dutch government and FAO. The Dutch support was discontinued in 1985. The system continued mainly on government budget supplemented by FAO and other donors.

The NEWU is responsible for coordinating all early warning activities for the purpose of collecting, storing and managing agriculture information. The NEWU is a department within the planning unit of the MAFF. It serves as a secretariat to the National Early Warning System.

The main objectives of the National Early Warning System are to:

- (a) estimate the population affected by abnormal weather,
- (b) identify the type of households requiring assistance,
- (c) assess the quality of infrastructure in the affected districts,
- (d) determine the level of market access, and
- (e) determine the type of intervention required for various population groups.

The National Early Warning System for Zambia is only concerned with agriculture information. This is a very narrow view of what early warning should be concerned with. Disasters do not only affect the agricultural sector. They affect the environment, property and social relations. They cause loss of human life, damage to property and loss of livelihoods which may have nothing to do with agriculture.

The warning people receive on floods, drought, epidemics, pest infections and environmental degradation needs a system to be put in place. From the foregoing, Zambia can be said to have no comprehensive EWS.

The EWS for Zambia is composed of different organisations as listed below:

- (a) Food Reserve Agency (FRA),
- (b) Meteorological Department,
- (c) Zambia Seed Company,
- (d) Care International,
- (e) Field Service Department - MAFF,

- (f) National Food and Nutrition Commission,
- (g) Bank of Zambia ,
- (h) Sasol,
- (i) Kynock and Omnia,
- (j) PAM,
- (k) FAO,
- (l) UNICEF,
- (m) FEWS,
- (n) WVZ, and
- (o) DMMU.

The major findings during the attachment are that meetings of the members of the EWS are normally necessitated by the occurrence of disasters. This affects disaster preparedness. The meetings need to be scheduled to consider disasters that have occurred and those that are anticipated.

It was also established that there was no formal mechanism agreed upon by the members of the EWS for information-gathering and information-dissemination. Each organisation collects, processes and stores information for its own use and not for disaster management, let alone for use by the DMMU. This shows a serious anomaly for organisations which belong to one communication system to fail to develop proper links of cooperation and integration.

There are also major weaknesses in the manner in which information necessary for early warning is gathered. The approaches are generally devoid of community participation.

The Vulnerability Assessment and Mapping (VAM) is a geographical targeting tool used to determine which districts, not households or communities, are food secure. In Zambia, the VAM is housed in the WFP and not in the DMMU. Its smallest unit of analysis is the district not the community or household. The

overall objective of the VAM exercise is to identify areas which are potentially vulnerable to food security and suggest further intervention options to mitigate against the situation.

The VAM exercise is performed by members mostly drawn from the NEWU. These include the DMMU, MAFF, CSO, PAM and the Meteorological Department. The accuracy of food security in the country is difficult to be determined by VAM. This is because its smallest unit is the district. The actual situation of food security at community and household level is ignored. As an EWS, it becomes unreliable for the purpose of food aid to communities and households in the event of a disaster affecting people's food security.

A reliable system should go beyond the district to the actual communities and households. When disasters strike, it is the communities and individuals who are termed vulnerable and subject to humanitarian aid. The affected communities should not be ignored in the vulnerability assessment and mapping exercise.

It is logical to believe that the vulnerable communities understand their vulnerabilities better than outsiders. They have details on which household has no food and which part of their community is most affected. It follows therefore that their involvement in VAM would produce very reliable information.

Other early warning systems suffer similar shortcomings. It was found that the Meteorological Department has 36 weather stations. These were described as inadequate in a country of 752, 614 square kilometres. The meteorological equipment which was installed in the 1950/60s was described by the official interviewed from the department as obsolete.

These are serious shortcomings considering that the Meteorological Department is a major institution in early warning. The main natural disasters affecting Zambia are weather-related. Droughts, floods, epidemics and pest infestation

are mainly caused by changes in the weather patterns. Correct prediction of these changes is very important in disaster management. The Meteorological Department uses satellite technology to estimate rainfall and weather patterns. This system does not offer complete and accurate information. Satellites tend to cover wider areas than weather stations which are usually locational specific.

Another important institution in the EWS is the CSO. Figures on population are particularly important for planning humanitarian aid. The DMMU needs to know how many people are in a particular area affected by a disaster. This helps to plan the amount of material assistance required. The CSO has also its own shortcomings. According to the discussions held with the DMMU officials, the figures given by the CSO as population of a particular area are usually less than the actual population.

According to the findings, there is no evidence to show that organisations that constitute the EWS incorporate traditional early warning methods in their operations. The traditional competences are ignored and yet the aim of early warning is to create an informed community.

Each culture has its own ways of interpreting the changes in the natural environment. The EWS in Zambia tends to emphasise technical and scientific knowledge at the expense of traditional knowledge.

In traditional societies people would tell whether there would be drought or excess rainfall. They would also fore-tell a good rainy season. They study small plants that germinate at a particular time of the year. They also study the presence of particular insects in the area. They can also tell the changes in the weather patterns by watching the migration of birds and the direction of wind. The accuracy of their interpretation and prediction can not be doubted. Both scientific sources of information, which result from research and experiments,



and the traditional sources which stem from experience are absolutely important in building up an EWS.

In order for information to flow and serve its intended purpose, it should be supported by specific structures. These structures would be useful for the analysis and transmission of information. When there are deliberately developed structures, they constitute a communication network which should trigger appropriate response each time there is a disaster.

The EWS does not work as a coordinated entity. Member-organisations merely meet to discuss who is going to do what when there is a disaster. They also meet to consider the resources and competences available within the member organisation. The essence of an EWS has not been institutionalised.

It was also established that a system to electronically link the DMMU to all organisations in the EWS has been planned following recommendations by PAID-ESSA which did a consultancy on information management. This proposed link is not connected to the communities or disaster-prone areas. The disaster-prone communities are stakeholders. They should equally be originators of the information. The DMMU should aim for a system which links grass-roots communication with the main communication network system. The current scheme proposed by PAID-ESSA as shown in Appendix 2 is useful for contingency planning and not for emergency response.

The local communities can be linked through telecommunication. Post offices in rural communities, community development centres or schools could be fitted with communication facilities powered by solar energy. These points could be used for sending and receiving messages on disasters.

Any communication system that leaves out the actual beneficiaries of humanitarian aid would not serve any useful purpose. The nature of aid may be

inappropriate, inadequate and untimely. The DMMU as a coordinating body faces this challenge of developing a coordinated response system.

## **7.5 Resources for Managing Natural Disasters**

Resources are essential for managing natural disasters. Without money, equipment and personnel, it is difficult to handle disasters. When disasters occur, people require food, clothing, water, shelter and medicine. They may be required to be evacuated and resettled. In some cases there is need for search and rescue. On long-term, there may be need to embark on risk-reduction projects.

In all these requirements, a strong economic base is necessary. The resources should be readily available, or there should be reliable sources where to source what is required. An organisation which is responsible for coordinating disaster response requires adequate resources. It also requires an effective communication network in order to be linked to where resources can be found. The DMMU is such an organisation.

According to the findings, the DMMU does not have most of the equipment to mount a disaster-response operation in the event of a major disaster. During floods, for example, boats helicopters, equipment and apparatus for divers are required. When there is drought the DMMU would require adequate transport for food deliveries. There will also be need for food storage facilities. Other disasters also require equipment and materials to be effectively responded to.

In terms of transport whether road, railway, air or water, the DMMU resorts to hiring. The DMMU has managed to respond to disasters using hired facilities. This is obviously an expensive venture which is a drain on the meagre resources of the DMMU. This problem can, however, be minimised if there was in place a

provision in the laws of the Republic of Zambia for the DMMU to use any public transport whenever there is a declared national disaster.

One of the main pre-occupations of the DMMU is to source food for communities affected by disasters. During disasters like floods and drought, food get destroyed. In order to save life, the DMMU sources food and distributes it using mostly the NGOs networks to the affected communities.

Food is sourced from different sources. The DMMU buys it from the FRA, Sable Transport, and other sources. Food is also received as donations from cooperating partners as shown in Table 2.

These sources are not dependable because the DMMU is a mere customer and competes with the other buyers. Both the FRA and Sable Transport are not obliged to reserve food for the DMMU to buy. Food from donor countries is also not guaranteed. Zambia is just one of the many countries which may be considered for food aid.

**Table 2**  
*Sources of 1998/99 Food Aid*

Donor	Commodity	Quantity (metric tonnes)	Total cost (US\$)
European Union	Maize	9,900	2,699,730
USA	Sorghum	10,000	4,235,000
Japan	Cash used to buy maize	2,767	1,230,000
Norway and UK	Cash used to buy maize	5,000	2,300,000
Canada	Mealie-meal	2,497	1,100,000
Canada	Maize	500	-
Canada	Rice	330	-
Italy	Rice	1,200	1,000,000
Italy	Maize	2,500	530,000

Source: DMMU Reports

The table shows some of the sources of food aid. Donors mostly respond when the Zambian government declares a particular hazard as a national disaster.

According to the findings during the practical attachment to the DMMU, Zambia does not have adequate food reserves. A visit was made to Sable Transport which stores foodstuff for the DMMU. It was found that there were only 12,000 bags of 50 kilograms bags of maize and eight bags of 50 kilograms bags of rice.

The FRA has no food stocks reserved specifically for disasters.

There appears to be no system put in place to stock food to avert famine. In the event that there is a major disaster affecting food security, Zambia is currently ill-prepared to deal with such a disaster.

This shortcoming in disaster preparedness needs to be seriously addressed by the Zambian government. Reliance on the external sources is not the best option. Having established the DMMU, the current annual budgetary allocation of K5 billion for disaster management is inadequate. Adequate funding is required in order for the DMMU to source food and be able to maintain reasonable levels of stock.

The DMMU should also have, in stock relief materials especially those that do not easily perish like tents, blankets, clothing and feeding utensils. This will also require money to source. People may look at these as of no immediate use in Zambia. This view is wrong because disaster management requires contingency planning. Crisis planning does not always bring favourable results.

There are other relief materials like medical supplies, that may be required during a disaster. These are better stored in drug stores and/or hospitals. The DMMU should maintain links with such institutions so that in the event of a disaster like

floods which may cause an outbreak of epidemics like cholera and other water borne diseases, the source of supply should be assured.

## **7.6 Indigenous Coping Mechanisms and Grass-roots Communication**

Natural disasters like drought, floods, epidemics and pests are not new in Zambia. People have lived with them for generations. They develop indigenous coping mechanisms to somehow manage these disasters. This knowledge builds up through generations of close proximity to the natural environment. Indigenous knowledge is not static, it is cumulative and dynamic. According to Johnson (1992:4), the knowledge builds upon the experiences of earlier generations and adapts to the new technology and the socio-economic changes of the present.

Knowledge abounds on alternative food sources. The knowledge is unfortunately becoming moribund and sneered at. Governments, donors and humanitarian organisations have institutionalised disaster relief and response. Humanitarian aid has the capacity to destroy indigenous coping mechanisms and perpetuate dependency.

The environment provides rich sources of food like fruits, roots, leaves, mushroom and seeds. Those who still depend on them are looked at as backward and when their practices are made known to government and humanitarian aid agencies, they are immediately termed vulnerable and eligible to receive food aid like maize and rice.

On 8<sup>th</sup> March, 1995 the *Sunday Time of Zambia* carried a story on the people of Lusitu in Gwembe Valley who because of drought-induced famine were eating *Nshima* prepared from a special grass-bearing seed. This generated a lot of sympathy from a cross section of the Zambian society. The government was accused of being negligent. What was overlooked was that this practice was not

new. People in that area had eaten and depended on that particular source of food for generations, particularly during famine.

The DMMU should take interest in developing these traditional food sources. This will make relief food distribution less expensive because it will serve as supplement to people's coping mechanisms. The food sources that sustain people during famine are core and should not be ignored.

During the attachment, it was found that while there are efforts to develop drought resistant crops, no efforts are being made to develop and promote indigenous food sources. The programme to develop drought-resistant crops has been spear-headed by PAM under the Drought Rehabilitation Programme. The overall aim of this programme is to facilitate and encourage the development of sustainable agricultural production systems among small-scale farmers in disaster areas especially those prone to drought. This is done through the distribution of planting materials that are drought tolerant, early maturing and promoting conservation-farming methods.

Food relief given to communities affected by disasters can never be adequate. Food meant for the vulnerable people may not reach them due to pilfering and also problems of accessing some remote places. There are no all-weather roads in some parts of Zambia. While people may be in need, transporting food to them may prove to be very difficult. Even if the food manages to reach them, it may be inadequate and may not be timely.

Developing traditional coping mechanisms is important. This is so because it is centred and dependent on available local resources and capacities. It is also based on the socio-cultural practices of the people. It promotes development from own local resources.

Neglecting traditional coping mechanisms is in itself disastrous, it increases people's vulnerability. There is need to identify and document these mechanisms. The proposed section on research and training within the DMMU would carry out these functions.

Promoting traditional coping mechanisms makes a lot of economic sense because of the following:

- (a) It promotes culturally accepted practices on how to cope with disasters and how to use grass-roots communication network;
- (b) It brings to the fore people's capacities, capabilities and resources in managing natural disasters;
- (c) It promotes participatory communication within the community itself and the outside. This fosters the pooling of resources to support particular risk-reduction projects and programmes;
- (d) It helps to identify the nature of resources required to be supplemented or sources from external sources; and,
- (e) It promotes dependency on nature's provisions. This makes disaster management less costly. Importing food relief, storing and transporting large amounts of supplies is very costly.

Zambia has learnt lessons from the recurring food shortages due to drought and floods. Challenges to develop other sources of food other than those associated with humanitarian aid should be seriously embarked upon especially by DMMU.

## **7.7 Future Trends in Disaster Management Communication**

The United Nations General Assembly in December 1989 adopted Resolution 44/236 proclaiming the 1990s as the International Decade for Natural Disaster Reduction (IDNDR). The objective was to reduce, through concerted international action, the loss of life, property damage and social and economic disruption caused by natural disasters. At the end of the IDNDR, the resolution made to disaster reduction is far from being realised.

The natural disasters seem to be increasing both in their frequency and intensity. The 1990s have experienced different natural disasters world-wide. In southern Africa, the recent ones being the 1991/92 drought and the 2000 floods in Mozambique. Other similar disasters have occurred prior to these years. The continued occurrences of natural disasters point to the fact that disasters are part of the human environment. The need to effectively deal with them through a coordinated response mechanism is therefore cardinal. This under-scores the importance of communication in the whole sphere of disaster management. From the findings and experiences during the attachment, the following are the main trends in disaster management.

### **(a) Regional Coordination**

Countries are realising the importance of regional cooperation in disaster management. This is so because disasters do not respect boundaries. Floods on the Zambezi river will affect Zambia, Zimbabwe and Mozambique. When there is drought in Zambia other SADC countries will most likely experience the same disaster. An outbreak of cattle disease in Namibia is likely to affect parts of neighbouring countries like Zambia, Zimbabwe, Botswana and Angola.

The affected countries need to cooperate in order to deal with the problems and reduce their impact. Implied in this cooperation is information which should be



communicated in the most effective and efficient way using appropriate channels and structures.

The envisaged disaster management system for SADC countries is a very positive move. It will ensure the exchange of information and knowledge on how to prepare, respond and mitigate against disasters. The SADC member countries have already begun to cooperate in terms of disaster management training. This should be strengthened by having a deliberate declaration by member states of a SADC-DMTC.

#### (b) Poverty

Poverty is one factor that renders people vulnerable to disasters. People become poor because of gross social and economic inequalities. The rich occupy strong and better houses while the poor live in slums or shanty compounds. They live in the most marginalised settlements. In 1997, in Lusaka, the Kanyama disasters affected the urban-poor. The poor lost their food and property due to floods. Thousands of people were temporarily moved to Independence Stadium and lived on food relief.

In Zambia, 70% of the population is poor (GRZ, 1998:3). This means that Zambia's manageability to disasters is very low. Manageability is looked at in terms of people's access to the means of livelihood. These include land, food, shelter, clean water, medical facilities, transport, agricultural input, education and information.

With 70% of the population being poor, it means that disasters will continue being a problem in Zambia. Efforts to plan, prepare, respond and mitigate against them will continue. Efforts to find effective and efficient communication networks will also continue being a major pre-occupation of agencies involved in the coordination of disaster management.

(c) Mass Communication

Mass media like radio, television, newspapers, satellite communication and computer internet will increase disaster awareness. People are more aware now than before because of new technology. They can be able to predict a disaster several months or even years before it actually occurs.

This awareness will increase knowledge on how to mitigate against disasters. There will be sharing of information and establishing of communication networks. Mass media will therefore play a major role in disaster management.

The mass media and mass communication serve many functions. Kasoma (1992:104) has identified seven functions namely:

- (a) to inform,
- (b) to editorilise or interpret information,
- (c) to educate,
- (d) to entertain,
- (e) to promote cultural heritage,
- (f) to advertise, and
- (g) to promote development.

All these are important functions performed by the media in the management of disasters.

When people need information about disasters, they turn to the media for news. The surveillance role is therefore cardinal. Interpretation of information enhances the education that people require as a way of promoting disaster awareness and knowing what to do when a disaster occurs. Disaster awareness can also be promoted through *infotainment*. This is the dissemination of information through entertainment (drama, songs, dances, poems etc). The media also transmit

cultural practices particularly relating to traditional methods of coping with disasters. Finally, the media can be used to advertise risk-reduction programmes and warnings and also promote developmental projects in order to mitigate against disasters.

In terms of the future trends in disaster management, the media are expected to assume greater responsibilities. It is also anticipated that development communicators will play significant roles in promoting participatory communication.

#### (d) International Cooperation

When disasters occur, they normally attract the attention of the international community. These include various countries, humanitarian agencies and the UN system. They provide material resources, finances and personnel in order to help reduce any adverse impact that may be caused by natural disasters. This is generally made possible through bi-lateral and multi-lateral agreements.

The interdependence of nations in disaster management means that communication networks will continue being developed and fostered. This is important in order to link service providers with disaster-stricken countries. It is also meant to build the capacities of the affected nations to be able to deal with disasters.

The search for a new world information and communication order will tend to increase information flow between nations on how to manage disasters. This will also foster international cooperation. Developing countries like Zambia stands to benefit from this exchange of information. It is anticipated that this information is likely to enhance the local capacities and initiatives in managing natural disasters.

## **CHAPTER 8**

### **Conclusions and Recommendations**

#### **8.0 Conclusions**

The main argument in this PAR is that disaster management rests on a properly developed communication network. This is so because disaster management is multi-disciplinary and requires the pooling of resources, skills and acknowledge prior, during and after disasters have occurred.

Proper networking requires the following:

- (a) Political will which should be demonstrated through policies, plans and appropriate legislation;
- (b) Availability of resources in form of funds, equipment, machinery warehouses, food relief and materials;
- (c) Commitment by all players involved in disaster management. These should have relevant knowledge and skills on how to manage disasters;
- (d) Participation of the vulnerable communities in defining the disaster threat, planning, monitoring and evaluating the disaster management process;
- (e) Development of the infrastructure which should include training facilities, storage facilities, telecommunication and reliable road, railway, water and air transport system;
- (f) An effective and efficient EWS which includes grass-roots communication network system;
- (g) People's access to information on disasters. Their causes, effects, prevention, preparedness response and mitigation;
- (h) Incorporating disaster risk-reduction measures in development plans, policies and strategies;

- (i) Strengthening the capacity of institutions at national, provincial, district and community levels in order to enhance disaster management response and mitigation; and
- (j) Developing and utilizing various forms of the media. This should involve the mass media and the traditional media.

The argument being advanced is that, while the DMMU may wish to communicate with the organisations, there are no instruments in form of laws and communication policies to back such activities. Information can therefore be ignored. Government should therefore expedite the enactment of a disaster management law and endorsement of a disaster management policy document.

It should further be noted that there is very loose coordination between the DMMU and the EWS on one hand and the vulnerable communities on the other hand. As long as this situation remains uncorrected, it will be difficult to achieve an effective communication network.

There are no communication links between disaster management committees. A visit to Kafue District Disaster Management Committee showed that the committee was able to function well without a PDMC which is supposed to link it with the DMMU.

It can also be concluded that, at the moment, disaster management is not sustainable. The country has not developed local coping mechanisms. The donors play a big part in financing disaster management through direct help to the DMMU and to the lead NGOs which are involved in disaster management. Given the scenario of donor fatigue, such help will tend to dwindle while disasters will continue. The DMMU needs to be fully supported in order to embark on risk-reduction programmes. People need to be empowered with knowledge and skills on how to handle disasters. The structures at central, provincial, district and community levels should be strengthened. This can only be possible if the

DMMU is adequately funded. The cooperating partners should also support developmental programmes which are aimed at reducing the risks caused by disasters.

The DMMU is a very strategic organisation. It has achieved a lot. In terms of food relief distribution, there have been no deaths reported as a result of starvation. The GRZ through the DMMU has responded to such requests and demands. The demands at times outstrip resources, thus the reason why the DMMU should be availed adequate funding and material resources.

The attachment has revealed that the community structures are very weak. The grass-roots communication has not been developed in relation to handling disasters. People, especially in rural areas have no capacity to handle disasters. This pathetic situation has been necessitated by Zambia's socio-economic development which is urban-biased leaving a backward rural sector.

The DMMU plans to strengthen grass-roots structures should be supported by government and the donors. Capacity building should not only be aimed at member-organisations of the EWS, lead NGOs and line ministries, nor should emphasis end with the provincial, and district structures. Building the capacity of community structures should be key in the whole process of capacity building. It is local communities which get affected by disasters caused by floods and drought. These communities should, therefore, be strengthened to enable them become resilient to disasters.

It can be concluded that the establishment of the DMMU by the GRZ was a very positive move. There is need, however, to establish an effective communication network. This will help the DMMU to effectively and efficiently coordinate disaster management efforts in the country. The mere establishing of a disaster management organisational structure does not in itself constitute an effective system for disaster management coordination. A structure needs to be based on

the actual social and economic realities of the country based on wide consultations and research. The DMMU has a duty to ensure that an effective and receptive disaster management structure is put in place.

## **8.1 Recommendations**

The importance of an effective communication network is very cardinal. Without communication, people will not know how to respond to disasters. Impediments to the realisation of this ideal need to be addressed and be acted upon. The following recommendations made are based on problem-areas found during the attachment to the DMMU.

1. In order to deal with the absence of an effective inter-sectoral and cross-ministerial communication linkages, which frustrate efforts to promote the sharing of information, it is recommended that disaster management focal point persons be appointed in all government ministries and organisations involved in disaster management.
2. There is no system put in place for effective gathering and dissemination of information. It is recommended that the DMMU should be electronically linked to all member-organisations of the EWS. It should also adopt a multi-media and multiple approach to information dissemination.
3. In order to foster linkages between disasters and development, design and produce disaster management campaign messages, promote participatory communication and ensure an effective communication network, it is recommended that, the DMMU should employ and utilise the services of a development communication specialist.
4. In order to develop a non-political and a non-partisan disaster management system, it is recommended that there should be increased

participation of key players such as the civil society, UN agencies, private organisations, vulnerable communities and the media. These should participate in policy formulation and implementation. They should be involved at central, provincial, district and community levels in activities relating to disaster management.

5. The development of trained cadres is essential in disaster management. Zambia has not made any significant headway in training. The in-country DMTC which was established in 1998 has not been functioning as a centre for disaster management. It is recommended that the DMTC be autonomous. It should have its own administrative structure which should provide a communication network to link all stakeholders in Zambia and the SADC region. The DMTC should, however, be still linked to the NCMDs and continue receiving support from the government.
6. It is recommended that an effective disaster management structure should be developed based on wide consultations and research. This structure should be backed by appropriate communication policies and legal provisions. Government should, therefore, expedite considerations of the submitted disaster management policy document and the disaster management legal framework.
7. The disaster aid system in Zambia is donor-dependent. Such a system is not sustainable. Donors should be seen as cooperating partners who supplement the local efforts. It is recommended to the DMMU to research, document and develop indigenous coping mechanisms particularly those relating to food sources and food security.



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## Appendix 1

of Persons talked to.

Mr. Jones L.K Mwanza	-	National Coordinator - Disaster Management and Mitigation Unit, Office of the Vice President.
Ms. Yande Mwape	-	Senior Sociologist - Disaster Management and Mitigation Unit, Office of the Vice President.
Mr. Domiciano Mulenga	-	Administrative Officer - Disaster Management and Mitigation Unit, Office of the Vice President.
Mr. Chembo Mbula	-	Senior Systems Analyst – Disaster Management and Mitigation Unit, Office of the Vice President.
Mr. Morris Muchinda	-	Chief Meteorologist – Meteorological Department.
Mr. Wilson Zimba	-	Disaster Management Training Specialist – Disaster Management Training Centre.
Mrs. Sally Mwila	-	Relief Coordinator - Programme Against Malnutrition.
Mr. Moffart Malambo	-	Provincial Disaster Management Officer- Central and Northern Provinces.
Mr. Tobias Mulimbika	-	Gender Specialist - Gender in Development ,Cabinet Office.
Col. Humphrey K. Mandona (Rtd)		Consultant in Disaster Management.
Lt. Col. Walker M. Chikuta	-	Trainer - Defence Service Command Staff College.
Mr. Raphael Hamakuba	-	Statistics Officer - National Early Warning Unit.

- |     |                       |   |                                                                                      |
|-----|-----------------------|---|--------------------------------------------------------------------------------------|
| 13. | Francis Mushimbwe     | - | Senior Statistics Officer - National Early Warning Unit.                             |
| 14. | Mr. Muwana Wamunyima  | - | Information Officer - Zambia Information Service.                                    |
| 15. | Mr. Shadreck Nsongela | - | Senior Inspector - Environmental Impact Assessment, Environmental Council of Zambia. |
| 16. | Nelson Manda          | - | Inspector - Pesticide and Toxic Substance Unit, Environmental Council of Zambia.     |
| 17. | Mr. Kelvin Chiposwa   | - | Secretary General - Zambia Red Cross Society.                                        |
| 18. | Mr. Frank Mwanza      | - | Programme Officer - Disaster Preparedness, Zambia Red Cross Society.                 |
| 19. | Mrs. Judith Sichone   | - | Deputy Council Secretary - Kafue District Council.                                   |
| 20. | Mr. Stanley Malambo   | - | Secretary - Kafue District Disaster Management Committee.                            |

PROPOSED NETWORK TOPOLOGY/CONFIGURATION

