



**REPORT ON
COMMUNITY
PERCEPTIONS
ON DISASTER
MANAGEMENT
IN THE**

CAPRIVI REGION



VIEWS FROM THE FRONTLINE:



Report on community perceptions on Disaster Management in the Caprivi Region.

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DECLARATION

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FOREWORD

This report is based on the VFL indicators and presents the views from community members of Lusesse, Lisikili / Libula, Kabbe and Katima Mulilo in Caprivi Region, which is one of the regions annually severely affected by floods during the rainy season. In Namibia, floods have become an annual event especially in the northern and north eastern regions. The study presents the views of community members and local government officials who took part in the survey. The survey was based on a questionnaire of 'core indicators' reflecting the core functions of local governance as defined by the 'Hygo Framework for Action'. The study was a selection of 181 participants in the region. Though it may be seen as a very small sample, the results of the interviews provided valuable information in helping to design interventions that could assist in the events of flooding of the entire region.

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1. INTRODUCTION

1.1 DEFINITION OF NATURAL HAZARDS AND THEIR CAUSES

Natural hazards are defined as any natural processes or phenomena that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage (UNISDR, 2009:20). Natural hazards such as windstorms, floods, earthquakes and landslides constitute serious threats to life, the natural environment, infrastructure and property. Natural hazards also cause great damage to the lives of people. According to Japan International Cooperation Agency's (JICA's) assessment of its contribution to Hygo Framework for Action (2011:10), in recent years the world has frequently experienced natural hazards which are affecting many people. Natural hazards disrupt local and national developments particularly in developing countries, as well as ruining livelihood resources such as crop fields in poor communities. Disaster risks are increasingly becoming a global concern, their impact and actions in one region mostly have an impact of risks in another region.

These increasing vulnerabilities due to natural hazards are related to changing demographics, technological and socio-economic conditions. Unplanned urbanisation and development within high-risk zones, underdevelopment, environmental degradation, climate variability and climate change all point to a future where hazards could increasingly threaten the world's economy and populations (United Nation's International Strategy for Disaster Reduction, (UNISDR, 2007, p.3).

Threats to society, the settlements and environment are diverse. Typically, natural hazards cause disruption to the economy, infrastructure in many parts of the world. It has been reported that the magnitude and frequency of natural hazards are increasing due to the implications of climate change with the result that the nation's inhabited environment is becoming increasingly vulnerable (Goode, Spencer, Archer, McArdle, Salmon and McClure, 2011).

Natural hazards are now occurring at a scale and frequency that is causing unprecedented impact worldwide (UNISDR, 2007). According to Goode *et al* (2011) disaster risk reduction is an important component of disaster risk management; as proper disaster risk management can effectively reduce disaster damages.

1.2 NATURAL HAZARDS/FLOODS AND THEIR CAUSES

Natural hazards are set to become disasters if they induce a serious disruption of the functioning of a community which exceeds the ability of the affected community to cope while using its own resources (Seck, 2008, p.2). Natural hazards affect key macroeconomic variables of countries, notably technology, induce low development process and hence reverse the monetary budget for development when channeled to assist the victims of natural hazards (Popp, 2006, p.61). The impacts also affect different parts of the world differently; the southern hemisphere may have completely different impacts when compared to northern hemisphere.

In developing countries, floods are more common than any other sort of hazards. A flood is caused by a combination of heavy rainfall causing river/ocean bodies to over flow their banks causing an excessive spread of water in the surrounding area (Serje, 2012, p.179). Floods are most often caused by high levels of precipitation; and are not limited to the melting of snow, tropical cyclones and other large tropical storms. Other causes involve a development of low pressure systems and this kind of flooding is usually an effect of the El Nino southern oscillation.

Namibia being an arid, semi-arid and a tropical dry country, geographically located between rivers and an ocean on the west, is thus vulnerable to the effects of water movement such as flood. The country has a population of 2.1 million people (National Planning Commission, 2011). Population distribution varies from rural to urban areas ranging from low to high populated areas depending on socio-economic, cultural and political development benefits available in the area. Namibia is vulnerable to annual floods most specifically in the north-central and the north-eastern parts of the country. In the rural parts of the study area, the attraction is more based on availability of land for cultivation, land fertilization and importantly the availability of water.

The Caprivi floodplains carry water from the Zambezi and Kwando rivers forming the floodplain (Mendelson, 2009, p. 15). These floodplains consist of a network of channels and large areas of surrounding grasslands. Water in the above mentioned rivers flows into the Linyati and Chobe rivers resulting in the soils of the floodplain to be comparatively fertile. For this reason, many people in this area prefer to reside closer to water points (i.e floodplains) where they grow their crops in the surroundings because it is easier to access water for domestic use as well as for their livestock (Mendelson, 2009, p.18).

The rainfall of the region varies from year to year, depending on the rain received in the Angolan highlands which leads the Zambezi river to swell its banks and spread water to all its interconnected channels. This means that people who live within a few meters closer to these channels are prone to flooding. These flows of water from the river channels destroy many homes and crop fields. At times livestock are drowned in the water, while parts of villages are occasionally submerged under water for periods of up to three months during floodseason.

Among the most flood affected areas in the Caprivi region are Kabbe, Katima Mulilo, Libula, Lusese and Lisikla. Therefore, the purpose of the study is to use the VFL indicators and assess findings on the status of community resilience to flooding. Furthermore, with specific attention to management of disasters in Namibia, the study looked at the national approach of disaster management in Namibia. Namibia's national disaster approach is described as a 'bottom up' approach. The President of the Republic of Namibia is the only person who can declare a disaster as a national emergency. This results in vulnerable people waiting as neither the civil society nor the local government can do anything before the President declares a national emergency. It is still unclear as to whether the recent disaster bill has clear objectives and strategies aimed at disaster reduction.

1.3 MANAGEMENT OF NATURAL HAZARDS IN NAMIBIA

Floods continue to destroy livelihoods of many in the Caprivi region, and the search for a long term solution persists. For Namibia to address disaster risk management effectively, it has aligned itself with the hygo framework. The hygo framework is the international network aimed at worldwide reduction on risks and vulnerabilities. As a result of this framework, the Namibian government established the following institutions and policies for the aim of implementing the framework for action (2009-2011), (i) Directorate of Disaster Risk Management (DDRM), (ii) Namibia Vulnerability Assessment Committee (NAMVAC), (iii) National Disaster Risk Management Bill, and lastly the National Emergency Management System. The Directorate exists to develop a functional national disaster risk reduction system that minimizes community vulnerability to hazards and effectively manages the impact of disasters within the Namibian sustainable development context by 2015 (Hausiku, 2012). The main objective of this directorate is to apply innovative approaches and technologies to enhance community resilience to disaster risks through effective coordination and facilitation of all disaster risk reduction initiatives in Namibia. NAMVAC is a multi-stakeholder committee that conducts vulnerability assessments for early warning purposes to identify vulnerable groups, the prevalence and degree of any given risk, and their causes using agreed indicators and assessment tools (Namibia Vulnerability Assessment Committee, 2008).

In February 2012, a Disaster Risk Management Bill was passed. The Bill was passed to provide an integrated and coordinated disaster management approach, declarations of disasters; establishment of the National Disaster Management Risk Fund and other incidental matters (Hausiku, 2012). Furthermore, Namibia has adopted the National Emergency Management System to implement the national disaster preparedness and management activities. These allow the sector to promptly respond to any disaster in the country.

In addition, institutional management responses are well established in contrast to community reporting structures which are not well known by communities affected. When a disaster occurs for instance the floods in this case, the government attempts to evacuate the people to higher grounds. In Caprivi Region alone there exist a Regional Emergency Management Unit as well as the Namibian Red Cross Society home-based care (HBC). These units employ trained officials specifically to facilitate the process of evacuation when floods occur. In 2009 the government hired boats and trucks to facilitate evacuation processes in times of flooding. These boats and trucks were meant for relocating affected communities to temporary relocation safety sites when the need arose. . Since flooding in this region has become a way of life and people know it is an annual occurrence , as a livelihood coping strategy few families usually take their cattle and families to higher grounds when the rain season approaches, especially those residing along the river banks and the nearby flood plains (Bosch, 2011).

2. NATURAL HAZARDS AND ITS IMPACTS

Disaster risk management (DRM) is defined as a systematic process of using administrative directives, organisations, and operational skills and capacities to implement strategies and policies to improve the coping capacity in order to lessen the adverse impacts of hazards (UNISDR, 2009:10). In most developing countries, specifically the southern Africa, these strategies are established as public sector function (Van kerck, 2006, p.96). The historical context of natural hazards management in the Southern Africa was perceived to be reactive. This was concluded based on the fact that the function focus was more on what



happened to the victims after the hazard and less on preparedness.

The impact of a hazard is the broadest term, and includes both market-based and non market based effects. An example can be market-based impacts which include destruction to property and a reduction in income and sales. The losses of disasters may represent market-based negative economic impacts. These consist of direct losses that result from the physical destruction of buildings, crops, and natural resources and indirect losses that represent the consequences of that destruction, such as temporary unemployment and business interruption.

Figure 1: Market opportunities disrupted

The costs of disasters vary from one population to the other and from person to person. Ranging from cash payouts by insurers and governments, losses suffered by individuals and businesses may completely differ from losses suffered by those who are uninsured, those whose losses do not make them eligible for insurance payments, and those who do not receive government relief should be counted in any complete compilation of the impacts of a hazard.

Other effects may include environmental consequences and psychological effects suffered by individuals involved in a hazard (Schwartz, 2005). Additionally, other effects can be physical destruction, measured by physical indicators such as the numbers of deaths and injuries or the number of buildings destroyed. When valued in monetary terms, damages become direct losses. Research has found significant differences in perception between groups of individuals for example gender, age groups and different cultural settings (Ivanisevic & Nordenstedt, 2010, p. 335). While such findings are useful, they may be insufficient to explain the complex factors that contribute to the difference in perception on disasters.

3. THE HYOGO FRAMEWORK

Namibia is a country that experiences heavy rains in the northern and north-eastern parts of the country which result in severe flooding. Because of the recurrent floods, Namibia has aligned itself with Hyogo Framework for Action (HFA) which builds resilience of nations and communities to disasters. The HFA is aimed at assisting the country to move away from the approach of emergency response to one of integrating disaster risk reduction. In order to reduce disaster risks and building disaster resilient nations the Hygo framework was formulated.

The Hygo framework is the international network that aims to provide an opportunity for a strategic and systematic approach to reducing vulnerabilities and risks to natural hazards. This is a global effort aimed at reducing vulnerability to disasters. The Hygo Frame was adopted in 2005 at the World Conference on Disaster Reduction held in Kobe, Japan. According to the United Nations International Strategy for Disaster Reduction (UNISDR, 2007), this is a systematic effort to strengthen the capacity of the disaster management community and enhance the quality of disaster response. The framework focuses on emergency preparedness and disaster mitigation strategies by building the foundation for the strategic formation, institutionalisation, and utilisation of coordination mechanisms in disaster response.

The framework aims to reduce the loss of life as well as the social, economic and environmental losses suffered by communities and countries as a result of natural disasters by increasing resilience to natural hazards. The framework identifies three main strategic goals and priority areas of action. These are the integration of disaster risk reduction strategies around disaster mitigation, disaster preparedness, and vulnerability reduction, the strengthening of mechanisms and institutions to build resilience to hazards and the systematic incorporation of risk reduction approaches into the implementation of emergency preparedness programmes (UNISDR, 2007).

The framework places the primary responsibility of these goals on national governments. While acknowledging the role and importance of NGOs and other civil societies, the scientific community and the private sector in the coordinated action the framework has made magnificent contributions towards disaster risk reduction. In addition, the framework encourages community resilience, where community resilience is defined as the capability to anticipate risk, limit impact, and bounce back rapidly through survival, adaptability, evolution, and growth in the face of turbulent change (Fran, 2008). The Hygo framework highly recommends disaster resilience community. The United Nations International Strategy for Disaster Reduction also found that resilience accelerates social and economic recovery.

Namibia has aligned itself with the Hygo framework to achieve the common goal which is to reduce the loss of life as well as the social, economic and environmental losses suffered by communities that are victims of natural hazards.

3.1 CAPRIVI CASE STUDY

The study area is in the Caprivi region, which has experienced repeated floods for decades to date (UNISDR, 2007). The Caprivi region is situated in the north-eastern part of the country, falling into the tropical climate zone area. Caprivi receives an annual rainfall of 700 mm per year between December and March (Mendelson, 1997). Apart from high precipitation, the region is a hub of major perennial rivers such as Kwando, Zambezi, Linyati and Chobe Rivers. These rivers have their catchments from the Angolan highlands and Zambia. (Mendelson, 1997). Given that the Caprivi region forms part of the lower basin of these hydrological systems, it is not surprising that the region experiences flooding on an basis.

Due to high rainfall in the southern Zambia and north-eastern part of Zimbabwe, the Zambezi river bursts its banks that result in flooding of the Caprivi flood plains (Mendelson, 1997). It is therefore suspected that flooding in the eastern Caprivi is due to an overflow of the Zambezi and Chobe rivers depending on rainfall received in Zambia (Regional Rapid Assessment, 2011). Floods in this region have a human dimension part to it, as some people in this region are not only flooded because of the overflow from the rivers but because people settled in the flood plains.

Figure 2: The study area



In 2007, it was reported that approximately 3,000 households (about 22% of the population) in the region were affected by floods (Office of the Prime Minister, 2009). These figures decreased by 2% per cent in 2010 whereby about 20% of the

population was affected by floods (Namibia Red Cross Society, 2009-2010). In 2011, the Namibia Red Cross Society reported that the population affected was reported to be 16% with 9% being relocated to safer grounds and relocation camps.

The situation worsens with increasing rainfall in the region. Property damages due to flooding ranges from road infrastructure, agricultural produce, homesteads, water supply and livestock among others. This leaves flood victims with not essential needs such as shelter, food and safe drinking water.



3.1.1 The people, livelihood and the environment of the study area

People in this area heavily depend on traditional way of living, from obtaining their water from ground water sources such as lakes, to ploughing maize and other cereals. Their main source of income can be summarized into four main categories: crop production, livestock, wages and pensions (Ashley and LaFranchi, 1997).

Livestock mainly contributes to essentially all household needs. Their production of cash is usually small, but it is their value for ploughing and cultural assets that makes up to their livelihood (Ashley and Lanfranchi, 1997) People in this area who do not have livestock have lower crop production which results on much dependence on off-farm cash income and overall greater economic insecurity. Practised by almost majority of the people, crop production provides food and not necessarily cash. The quantities that households harvest vary, but statistics have shown that most households cannot produce the cereals they need for a year, implying that their food deficit is met through other means.

Figure 3: Some make a living on fishing products

Wages and pensions provide reliable cash income and relative economic security for most households in this area. Such wages enable them to buy food and other essentials, cope with droughts and sometimes support other families. Most regular jobs are in government and non-governmental organisations including tourism.

The Cuando river which flows into the Zambezi river, has a floodplain that extends across the area forming a dynamic system, dependent on seasonal floods. When swamped by the annual floods this system provides shallow, well-vegetated breeding and nursery areas for fish, amphibians, birds and other aquatic animals and a diverse flora. The community living around the area positively benefits from such biodiversity.

The river floodplain plays an important role in many lives of the local people. It sustains the creation of livelihoods through the use of plant and animal resources, water-based tourism activities in the delta system, and the provision of water for human

consumption. The river floodplain rich in biological diversity, is hence vital to the local communities who rely on its resources for their livelihoods.

In spite of the benefits the communities receive from these floodplains, the periodic heavy rains result in annual floods. This flooding in the area has been reported for about a decade now, and it persisted with no long term planning and solution to assist the people in the region. Government response to the situation is more of an aftershock response by giving disaster relief food and other various post disaster assistance. This study has explored a number of factors in this region ranging from age of communities and their perception of threats both in rural and urban areas.

4. METHODOLOGY

Views from the Frontline (VFL) is a global survey conducted every two years by the Global Network of Civil Society Organisations for Disaster Reduction (GNDR). The VFL Project aims to achieve greater international and national government accountability and transparency in regard to hearing the voices of vulnerable people. Ultimately, VFL 2011 aspires to open a political space for dialogue, building trust and understanding. A quantitative survey was conducted based on a questionnaire comprised of twenty questions. The questions were based on indicators of progress in 'Local Governance' in relation to Disaster Risk Reduction. Local governance is defined as comprising a set of institutions, mechanisms and processes, through which citizens and their groups can articulate their interests and needs, mediate their differences and exercise their rights and obligations at the local level. The building blocks of good local governance are many: citizen participation, partnerships among key actors at the local level, capacity of local actors across all sectors, multiple flows of information, institutions of accountability and a pro-poor orientation (UNDP, 2012).

4.1 METHODS AND TOOLS

The study was conducted using the methodology and tools from the Global study "Views from the Frontline" implemented in the northern part of the country. The methodology used and the tool of the study were similar in content. The tool includes a number of descriptors that can be used to compare sub-sets of data : country, gender, age, local government (which does not include traditional authorities and community based organisations) involvement, geography (urban or rural area), perception of threats and changes in disaster losses for assessment.

The questionnaire was designed to assess the attitudes of ordinary people living along flood prone areas. The study identified the mainly at-risk communities within the region by developing a risk profile was created by using information about hazards and vulnerability as well as disaster impacts that occurred in each location. Such information is obtained from the local people as well as the government departments in the region.

The survey questionnaire consists of 20 core indicators accessing progress in 'Local governance' in relation to Disaster Risk Reduction. The total number of interviewees conducted in the affected areas was 181 respondents . A face-to-face approach was used to interview the respondents who were mainly from the local communities, local governance structure and civil society. The questionnaire covers aspects such as perception on disaster threats and changes in losses over the past five years due to disasters.

4.2 SAMPLING AND DEMOGRAPHY OF RESPONDENTS

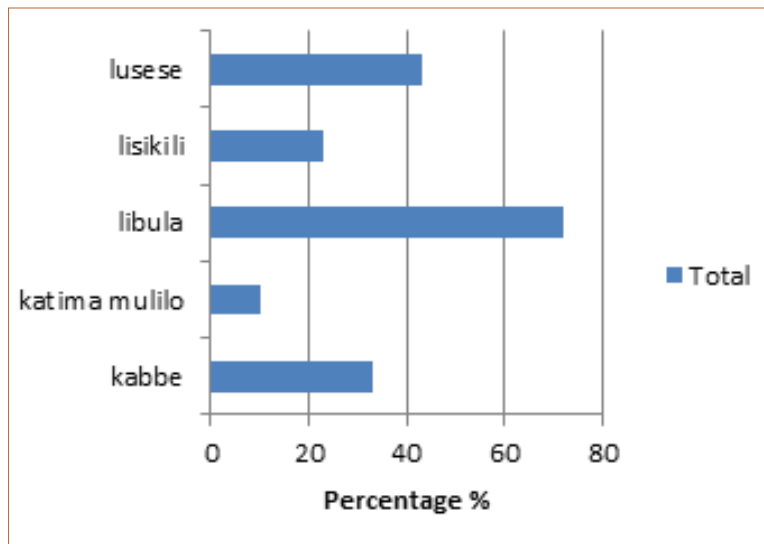
The data used for the analysis of the descriptors is a sample of N=181 questionnaires from 5 locations in the Caprivi region. The sample was randomly distributed across villages, and the findings of the survey were found to consist of 96: 85 female to male ratio. Urban and rural composition were 7 and 174 respectively. The sample comprised of a middle aged to older population, the young (under 18 years) were under represented. In terms of informant group, 92.82% of the sample was the local communities and the remaining being from the civil society and local governance.

Features of the descriptors of the data were as follows:

These are location, age group, gender, geography and informant groups

Locations with the highest proportion of community as an informant group is Libula and Lusese. These can be attributed to the fact that they had bigger sample sizes (Libula (N=72) and Lusese (N=43)). The community representation accounts for 92.82% of the total sampled population in the study sites. The percentage of informant group in Katima Mulilo as a location has the lowest representation of community. This is due to the fact that Katima Mulilo is a town in an urban setting. Based on gender, Libula and Katima Mulilo were male dominated, while Kabbe, Lusese and Lisikili were female dominated. The sample of respondents is mostly rural area based (96.13%), with the remaining 3.97% for Katima Mulilo representing the urban respondents.

Figure 4: Size of sample drawn from each Location



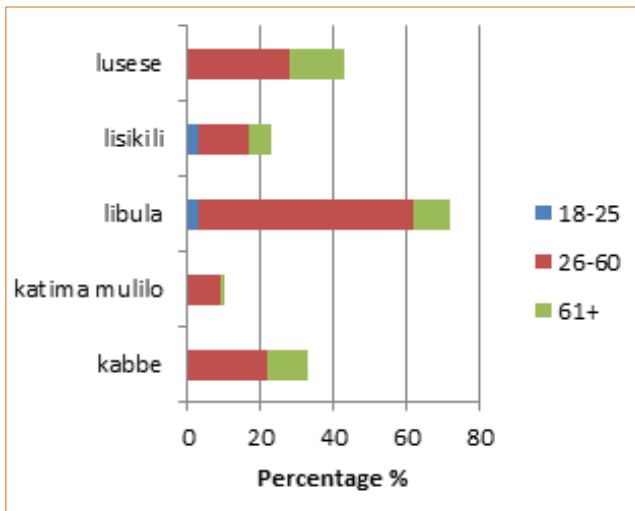
As indicated previously Libula recorded the highest percentage of respondents. This could be attributed to the bigger sample from this area. Additionally, the area was perceived to be the hardest hit by the impact of the flood in the study area. On the other hand, Lisikili recorded the lowest respondents among the rural locations. For the purpose of getting respondents perception on the hazards from both rural and urban settings, Katima Mulilo was added to the study area. This explains why most urban respondents were from this location.

Table 1: Breakdown of Sample by age group

Age	Frequency	Percent
18-25	6	3.3
26-60	132	72.9
61+	43	23.8
Total	181	100.0

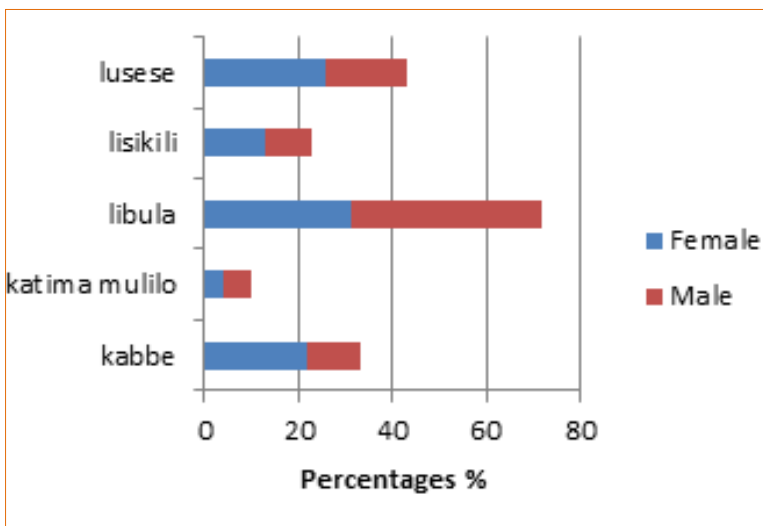
The age breakdown indicates a bigger portion of respondents to come from the 26-60 age group. This can be explained that a younger age group would not necessarily know much about the floods and perhaps would give little or no information at all.

Figure 5: Age Distribution by Location



Based on Table 1 and Figure 2, it is clear that most of the respondents were in the middle aged group. This implies that 74.5 % of the survey were people aged between 26 and 60 years of age. It is also important to note that the young generation only represents 3.3% of the total sampled respondents, while over 60 years of age are less than one-third of the sample.

Figure 6: Gender Participation by Location



The study was dominated by women as more than half of the respondents were female, and all locations (Luse se, Lisikili, Libula, Kabbe and Katima Mulilo) had variations on gender.

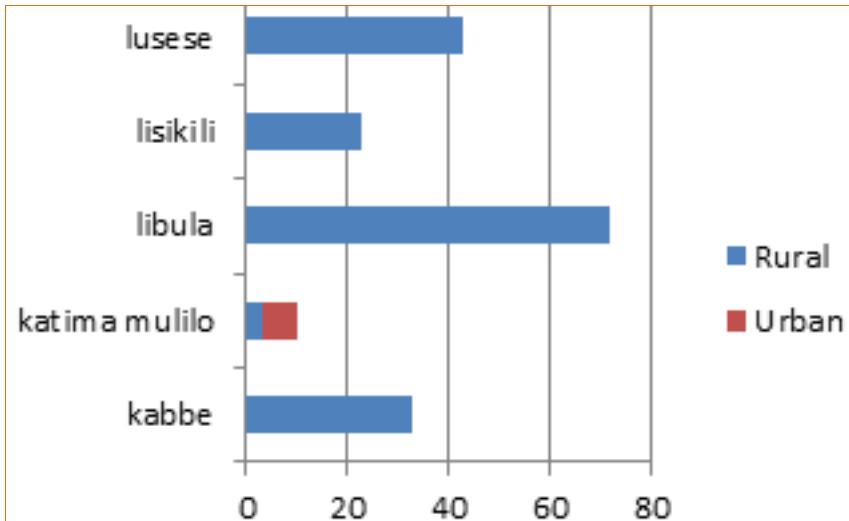
Table 2: Age Distribution based on Gender

Age	Female	Male	Total
18-25	2	4	6
26-60	68	64	132
61+	26	17	43
Total	96	85	181

Most of the female respondents are middle aged women – a greater proportion of women are in the 26-60 age group, and greater proportion of men are in the same age group as well.

Figure 7: Geography (Rural/Urban) context of locations visited

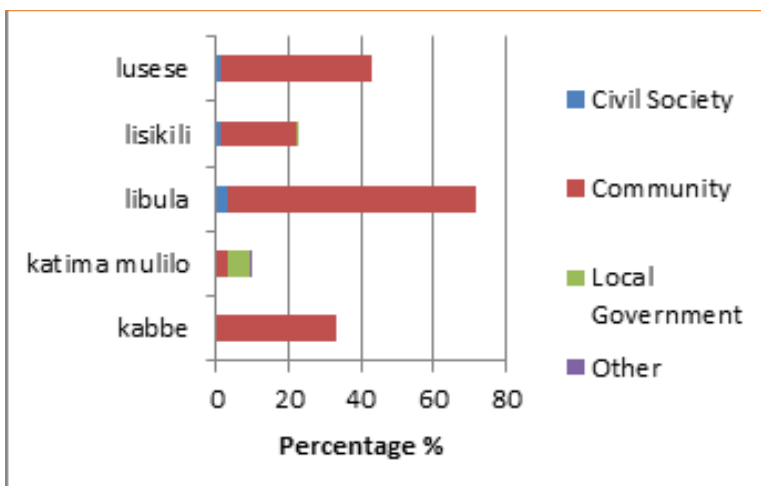
Differences between rural and urban respondents are significant. Rural respondents dominated the study(96%) and the



remaining 3.3% of the study is based in the urban areas. This can be attributed to the fact that rural residents believe that living closer to floodplains benefits them in terms of water use for both domestic and their livestock.. In urban areas, it is the contrary; town planners take all these factors into consideration when developing a town.

Figure 8: Membership based on informant groups by Location.

The survey indicates that most of the respondents are basically local community members, (92.8%), with very few representing



the civil society (2.7%). One respondent came from the business community.

Table 3: Information Groups participation based on Gender

Informants Group	Female	Male	Total
Civil Society	4	1	5
Community	91	77	168
Local Government	1	6	7
Other		1	1
Total	96	85	181

5. RESULTS

The study explored a number of variables basing the findings to the purpose of the study which is perception of disaster impacts on the community and its management(see annexure). The findings were segregated based on changes in disaster

losses, descriptors, losses and perceived hazards and lastly, the findings on local governance issues. These are further discussed below.

5.1. CHANGES IN DISASTER LOSSES

This category of losses refers to generally what a household has lost due to floods. This may be livestock drowning in water, or literally died, huts were washed away, food storages destroyed and anything that respondents feel is important to them in terms of livelihood that was either lost or destroyed due to the hazard. In this regard respondents feel that such losses have increased this time around. Among those respondents (as indicated in Table 4 below) those who feel losses increased are about 69.9%. This is based on what was lost in 2012 compared to what they lost over the last 5 years.

Table 4: Changes in Disaster Losses

	Frequency	Percent	Valid Percent
No Change	16	8.8	8.8
Slight Decrease	32	17.7	17.7
Slight Increase	73	40.3	40.3
Substantial Decrease	7	3.9	3.9
Substantial Increase	53	29.3	29.3
Total	181	100	100

The changes in losses were then also grounded on locations in the study area, the results are presented in Figure 9 below.

Figure 9: Changes in Disaster Losses

Figure 9 above describes the changes in losses due to disasters over the past 5 years across studied locations in the Caprivi region. Kabbe had a number of respondents who feel changes due to disasters have decreased. Respondents feel differently about changes on disaster losses, some feel changes have decreased and others feel they have not changed e.g. Lusese has the highest number of respondents that feels disaster losses have not changed.

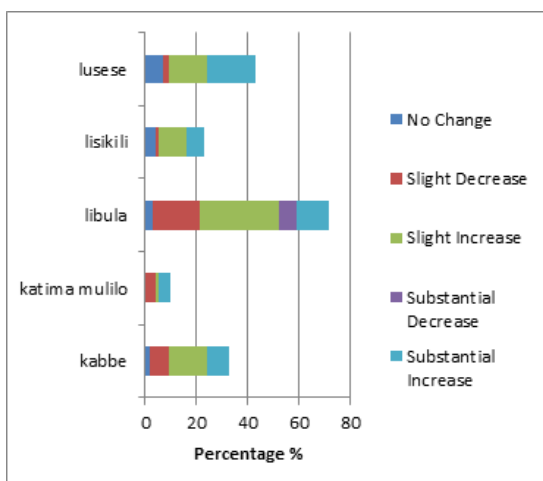




Figure 10: Despite increases in losses, some feel it losses has decreased as no much has been destroyed

5.2 CHANGES BY DESCRIPTORS

In understanding descriptors such as age, Table 5 below presents an understanding of the descriptors using changes of disaster losses over a five year period with age. The table indicates that the middle aged group strongly believe that the disaster losses have negatively changed. About 73% of the respondent's falls in the middle age (26-60).

Table 5: Views on change in losses by Age

Age	No Change	Slight Decrease	Slight Increase	Substantial Decrease	Substantial Increase	Total
18-25	2	1	2		1	6
26-60	9	26	57	6	34	132
61+	5	5	14	1	18	43
Total	16	32	73	7	53	181

The perceived changes in disaster losses were also run across informant groups. The study found that such changes caused negative change amongst respondents representing the community (see Table 6 below). About 71% of the community respondents (i.e both slight and substantial increase) feel that disaster losses have increased over the past five years. Those that are involved in the local government and civil society feel differently about these changes, some feel the changes have increased while others feel they have not.

Table 6: Changes in Disaster Losses in total by informant Groups

Informant Group	No Change	Slight Decrease	Slight Increase	Substantial Decrease	Substantial Increase	Total
Civil Society	1	1	1		2	5
Community	15	27	71	7	48	168
Local Government		4	1		2	7
Other					1	1
Total	16	32	73	7	53	181

Based on Table 8 above, both men and women believe that there was a slight increase in disaster losses over the past 5 years.

Table 8: changes in Losses by Gender

Gender	No Change	Slight Decrease	Slight Increase	Substantial Decrease	Substantial Increase	Total
Female	11	17	41	2	25	96
Male	5	15	32	5	28	85
Total	16	32	73	7	53	181

5.3 CHANGES IN LOSSES AND PERCEIVED HAZARDS THREATS

The question on perception on threat received a quite clear response. In the study the threat is believed to be geographically diverse; though the communities are all located in the flood plains somehow there is a difference on perception regarding threats as shown in Table 9 below.

Table 9: Perception of threat of disasters

Perceived Threat	Frequency	Percentage
Very High	40	22.1
High	80	44.2
Medium	26	14.4
Minimal	6	3.3
Low	29	16.0
Total	181	100

About 66% of the respondents in the survey regard themselves as being at high or very high risk of disasters (Table 8), compared with only 20% who regard themselves as being at minimal or low risk of disasters. Figure 7 indicate Lisikili as one of the location with mixed responses on threats, both high threat and low threat respondent's.

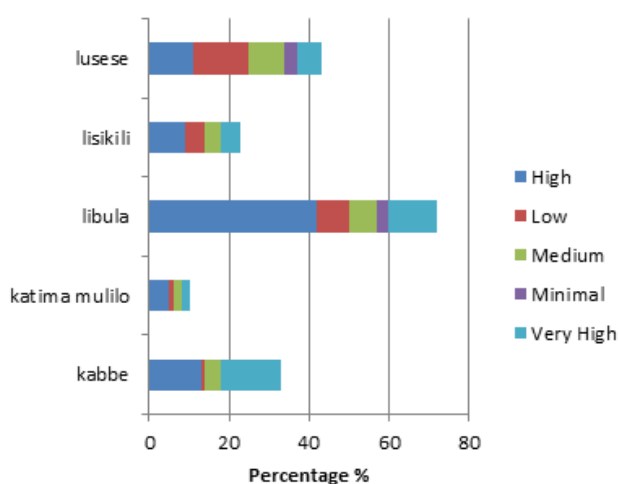


Figure 11: Perceived threat of disasters by Location

5.3 LOCAL GOVERNANCE ISSUES

5.3.1 Views on local governance

The local governance question was based on respondents' opinion on what level of progress has been made towards twenty local governance indicators (see annexure). The indicators participation, gender, children and youth, volunteers, policies,

indigenous capacities, planning, financial resources, decentralization, expertise, training, baselines, monitoring, participatory monitoring, complaint procedures, information gathering, information management, information dissemination, governmental coordination and partnership.

The study results in Table 10 below shows how indicators have performed on local government issues. It is clear that very few locations scored high on the indicators; implying that the local government has still a lot to do in terms of either creating action plans, implementing, and monitoring as well as taking into account the local knowledge into disaster prevention. For example, a score of 1 refers to a score indicating the number of localities that believe the indicator is doing very well, i.e. high score. The same can be applied to an indicator for a score of 2-3 as well as the column indicating the lowest score for the number of localities that believes the indicator is not performing well.

Table 10: Top Scoring Local Governmenace issues (number of locations)

Indicators	Highest scoring location	Lowest scoring location
Participation	1	4
Gender	1	4
Children & Youth	1	5
Volunteers	2	1
Policies	2	6
Indigenous Capacities	3	5
Planning	2	3
Financial Resources	1	6
Decentralization	2	4
Expertise	0	4
Training	1	4
Baselines	2	5
Monitoring	1	4
Participatory Monitoring	1	3
Complaints Procedures	1	5
Information gathering	1	4
Information Management	1	5
Information dissemination	2	5
Governmental Coordination	2	4
Partnership	0	3

This can be translated that the local government does not involve the marginalised people in the disaster prevention decision making processes, it does not fully take into account local knowledge and skills practices into disaster prevention, as traditional knowledge is a crucial tool which needs to be considered when decisions are made, a participant revealed. The local governance show very little on local level action plans as well as monitoring progress at the local level actions.

Disaster risk information is not much relevant to the needs and priorities of local officials and affected communities. Risk patterns are valued only to a certain extent, “Vulnerable groups are not adequately assisted with necessary needs, and largely not considered during planning exercises” as revealed by another participant. In addition, such information sharing into practical learning, ideas and knowledge of what has happened to other stakeholders is not a common practice.

The overall survey indicated that the local government is only doing well at gender, children and youth. This means that the local government ensures that both women and men participate fully in disaster prevention as well as taking into account specific needs of children and young people.

Surprisingly, the respondents indicate that disaster risk reduction policies were not practised in the past 5 years. It is only recently that a disaster risk management bill was approved by cabinet in 2012. In this regard, the survey showed no tangible answers whether the local government has adequate budget for disaster prevention. Also, it did not give a clear indication whether there are clear roles and responsibilities for local government officials to carry out for the aim of preparedness and prevention of disasters.

The local government does not have a clear established reference point for example a baseline from which it can measure progress with regard to implementing disaster reduction. Lastly, the survey did not give solid responses as to whether the local governance provides vulnerable people with information on disaster risks.

6. DISCUSSION

6.1 PERCEPTION OF THREATS

Fordham (2012, p.424) confirms the findings of this study that women suffer more in the events of hazards and bear much heavier physical and psychological burdens during the recovery period. Yet, in most cases their needs and interests are overlooked, however the findings of this study shows this is not the case in Namibia. On the other hand, the elderly people have physical, economic and social vulnerabilities that result in challenges and subject them to greater harm and difficulty in recovery from a disaster (Ngo, 2012,p. 447). The study conforms to these as it also shows that the 61+ age group perceives the impacts of disasters more.

On the aspect of geographical location, the study has showed that the rural areas perceive the effects of floods more when compared to the urban areas. This can be explained by the fact that hazards are found to affect livelihoods differently. Natural resources and agricultural production form a common source of food and livelihood of many rural residents, and these are usually badly affected by hazards and it becomes difficult to return to the normal way of surviving. On contrary, urban areas survive on a different scale of source of food, mainly buying food from supermarkets and should the money be available, the effects of hazards are barely felt.

6.2 A NEED FOR A PROACTIVE RESPONSE APPROACH IN NAMIBIA

A Proactive response approach is defined as a process by which the events of natural hazards are well planned ahead, anticipating and forecasting for change in reaction to event (UNISDR, 2002). On the contrary, reactive response approach to flood management refers to reaction after the flood has already taken place. At the current moment, responses to flood events in Namibia have been solely reactive, upon which the office of the prime minister reacts to the flood by providing emergency support in the form of temporary relocations and flood relief foods such as maize meal, cooking oil and fish. However, in the long-run, this has proved not to provide a permanent solution to the problem. This is based on the fact that the floods are recurring every year. Therefore, there is need to engage in proactive disaster risk management measures in order to provide permanent solutions to the recurring floods in the country.

It is understood that a focused proactive approach towards hazards management is a critical first step towards effective, equitable and sustainable response that at once ensures early and long term recovery. Despite brave efforts by civil societies, office of the prime minister and other institutions in Namibia, flood preparedness, management, response and recovery remain an area that can be improved. In the past, however, the approach has been both reactive and somehow not geared towards enhancements of disaster resilience.

In support of this, Srivastava and Laurian (2006) encourages comprehensive plans towards disaster risk management. It is believed comprehensive plans can steer growth and development away from hazard-prone areas, restrict land uses in sensitive areas, locate public infrastructures away from hazard areas, and impose building standards that reduce the vulnerability

of structures (e.g. flood proofing or minimum setbacks from streams in floodplains). Finally, comprehensive plans can also promote public information and education campaigns to increase citizens' awareness of potential hazards and best use of natural resources (e.g. water), policies discouraging growth in flood-prone areas, flood insurance, education of homeowners and builders about best location and building practices.

7. CONCLUSION

Flood in Namibia is real, and its frequency on the rise, this calls for an effective disaster risk management that needs to be established to address the increasing risks most specifically in the Caprivi region. It is thus essential that disaster risk reduction is carried out by all local government, civil society as well as individuals at all levels in communities.

Based on the survey, most of the members of communities believe that changes in disaster losses have substantially increased over the past five years and more flood impacts are depicting as time progresses. Also, communities believe they are more at risk and vulnerable to floods in the region compared to any other people.

With the disaster risk management bill and policy in place, it is essential that activities and objectives of such policies be integrated in all development activities of every line ministry, and non governmental organisations of all kinds. Furthermore, the role of government in decision making and implementation needs to be collective. Namibia is commonly criticised of passing laws and policies but fails to implement and act upon them.

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ANNEXURE

The questionnaire assessed the progress on five following themes.

- Responsiveness – ability to make decisions that take into account the needs, rights and entitlements of all citizens and stakeholders, including vulnerable and marginalised groups.
- Capability– individual and institutional capacities to organise and undertake actions, utilise opportunities and mobilise support.
- Accountability – means to hold public policy makers (duty bearers) to account to citizens (rights holders) including ability to impartially measure progress towards objectives and targets.
- Transparency – facilitating easy public access to relevant information and processes relevant to building safety and resilience.
- Coherence – making different local people, organisations, sectors and disciplines work together to build safety and resilience.

These indicators were aimed at two key respondent groups - Local Government officials and community representatives. Respondents to the survey were asked to assess progress towards the various indicators by filling in the standardised questionnaires.

Communities that are mainly at risk in the country were identified by developing a country profile identifying the main disaster risks at national and sub-national levels. Information from government departments and the media about hazards and vulnerability was used to identify communities that were at risk. A total of 20 respondents was used; the number comprised 5 local government officials and 15 community members. Officials were from local administrative authorities or local representatives of central government departments and line-ministries, and selected community members living in the selected communities, some in urban areas and others in the rural areas.

However, the question on 20 indicators were as follow:

Participation was asked as to whether the local government involved all people, especially vulnerable and marginalised groups in disaster prevention, decision-making and implementation? On gender, does the local government ensure women and men participate equally in disaster prevention, decision-making and implementation? On children and Youth, does the local government disaster prevention practices take into account the specific needs of children and young people? Volunteers, does local government support the participation of local volunteers in disaster prevention measures? Policies, does the local government have regularly reviewed disaster prevention policies to protect vulnerable people from disasters? Indigenous capacities, does local government disaster prevention practices take into account indigenous knowledge? Planning, does local government have a plan of action? Financial resources, does local government have an adequate budget for disaster prevention? Decentralization, do local government officials have clear roles and responsibilities to carry out disaster prevention? Expertise, does local government have sufficient expertise to carry out disaster prevention? Training, does local government provide disaster prevention training for government officials? Baselines, has the local government established a reference point from which to measure progress in implementing disaster prevention policies? Monitoring, does the local government regularly monitor and report on progress? Participatory monitoring, does local government involve communities and civil society in the monitoring of disaster prevention? Complaints procedures, does the local government provide a way for vulnerable people to make complaints? Informant gathering, does local government connect traditional and scientific knowledge to inform local action planning? And finally partnership, does the local government form partnerships to implement disaster prevention measures with community?

