

Examining the integration process of the community based institutions and organizations as a response strategy for ‘Disaster Reduction’ a case of Kazungula District, Zambia

By

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DECLARATION

I Juliana Mweemba Hakaloba, declare that this dissertation represents my own work and that all sources I have quoted have been indicated and acknowledged by means of complete references. I further declare that this Dissertation has not previously been submitted for a Degree, Diploma or other qualification at this or another University. It has been prepared in accordance with the guidelines for Master of Science of Public Health by Research Dissertation of the University of Zambia.

Signed.....

Date.....

Candidate

Signed.....

Date.....

Supervisor

CERTIFICATE OF APPROVAL

The University of Zambia approves this Dissertation on a qualitative examination of the integration process of the community based institutions and organizations as a response strategy for ‘Disaster Reduction’ a case of Kazungula District, Zambia

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ABSTRACT

Background information

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All over the world, the number of recorded disasters has doubled from approximately 200 to more than 400 per year in the past 20 years. Community based institutions and organizations such as local government, community neighborhood and international organizations have been recognized as the additional elements in disaster management.

Kazungula district in southern province is among the districts which are struggling with the challenges resulting from flood disasters. Overall the integration process of Community based organizations and institutions in the Disaster Risk Reduction system has not been optimized. This limited integration process of community-based institutions and organizations such as the neighborhood health communities, traditional leaders, and community based health workers in the disaster risk reduction system has been cited as partly contributing to inadequate disaster risk reduction response in the district. Meanwhile, there is limited knowledge of the factors that have shaped this integration process. The overall objective of the study was to critically analyze the integration process of the local institutions and organizations within the Kazungula District Disaster reduction system

Methods

The study adopted a *case study design* to analyze the integration process of the community based institutions and organizations in the Kazungula disaster reduction in Kazungula District. Thirteen respondents from governmental and non-governmental institution were purposefully selected for in-depth interviews. Two Focus group discussions were done and respondents were from community based organizations such as the health neighborhood; community leadership and women group representatives. Fifteen informants for the focus Group Discussions were purposefully selected for the discussion. NVIVO qualitative software was used to organize data. Data was analyzed using thematic analysis.

Results

Thirteen respondents were interviewed from different government and non-governmental institutions. Two focus group discussions comprising of 10 and 5 members were held in Sikaunzwe and Kasaya respectively. The study revealed that institutions and organizations integrated Disaster risk reduction in different ways. Some institutions, however, were not active stakeholders in Disaster Risk Reduction. Factors that positively affected the integration process included the availability of the disaster management plan at the District Commissioners' Office. Some staffs from institutions and organizations were adopted in climate change projects, giving them an idea of Disaster management. Factors that limited the integration process included inadequate funding, lack of guidelines and a working Framework to design or implement DRR. The institutions and organization also lacked trained manpower. The attitude of the affected communities, such as not being cooperative during disasters, was also constraining Disaster Risk Reduction integration process by institutions and organization.

Conclusions

Institutions and organizations did not optimally integrating Disaster Management in their daily activities. Kazungula District Disaster Management is yet to develop to mitigate the

effects of disasters in the District. Actors in Disaster Management needed support through the development of the framework, trainings, and adequate funding for Disaster Reduction activities. The actors also needed to involve the community in planning, implementation and evaluation of Disaster Management activities, for community's cooperation and effectiveness.

Key words:

Community based institutions and organizations, integration process, Disaster reduction, Kazungula District, Zambia

DEDICATION

I dedicate this study to my late Parents James and Mary Mweemba for making me who I'm, today, and to all victims of disasters all over the worlds as well as the organizations and institutions that have worked so tirelessly to mitigate the effects of disasters.

I also dedicate this study to my Husband, Boyd Hakaloba, for his sponsorship, undivided love, support and encouragement to complete this study successfully to my children, Mweemba and Smart, for their love and prayers.

To my brothers and sisters, for believing in me and their continued support.

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LIST OF ABBREVAITIONS

AIDS	-	Acquired Immune Deficiency Syndrome
ADPC	-	Asian Disaster Preparedness Center
APEC	-	Asian Pacific Economic cooperation
CBFM	-	Community based flood management
CBoH	-	Central board of Health
CSO	-	Central statistics office
DMMU	-	Disaster management and mitigation unit
DRR	-	Disaster Risk Reduction
DRM	-	Disaster Risk Management
ERES	-	Excellence in Research Ethics and Science
GDP	-	Gross Domestic Product
HFA	-	Hyogo Framework for Action
HIV	-	Human Immune Virus
NGO	-	Non Governmental organization
PHC	-	Primary Health Care
SADC	-	Southern African Development Countries
SAP	-	Structural Adjustment Program
SFSP	-	School Flood Safety Program
SPCR	-	Strategic Program for climate change
UN	-	United Nations
UNCEF	-	United Nations Children's Emergency Fund
UNHCR	-	United Nations High Commission for Refugees.
UNISDR	-	United Nations International Strategy for Disaster Reduction
UNPAN	-	United Nations Public Administration Network
WHO	-	World Health organization

CHAPTER 1 INTRODUCTION

1.1 BACKGROUND INFORMATION

All over the world, the number of recorded disasters has doubled from approximately 200 to more than 400 per year in the past 20 years (WHO, 2015). Current trends indicate a future where extreme climate variability and its consequences are likely to become the norm (Disaster Risk Reduction Strategies and Risk Management Practices, 2011). Therefore, institutions such as local government and other community based organizations' participation have been recognized as the additional element in disaster management. This is necessary to reverse the worldwide trend of exponential increase in disaster occurrence and loss, from small and medium scale disasters. The United Nations International Strategy for Disaster Reduction (UNISDR) encouraged global engagement of a range of actors. The involvement of actors such as community based organizations could build a culture of prevention in society as part of sustainable development (UNISDR, 2011). Disaster Risk Reduction policy and framework requires knowledge for informed decision making and coordinated action among the stakeholders (Juergen & Patrick, 2015). The most important stakeholders in this case are the community based institutions and organizations, such as the local government; government ministries and community volunteers. UNISDR encouraged organizations in the community as well as local government to interact, share information and collaborate on risk reduction initiatives. This coordination and partnerships have a goal of reducing disasters in the community.

The community leadership and community based organizations need to be consulted in disaster risk reduction and emergency preparedness programs in an effort to prevent diseases that occur during floods (WHO, 2006). Consultation of the community based organization would promote ownership of the programs and cooperation of stakeholders. Trust is a critical moderator of effectiveness of any policy, for risk communication and public engagement (Bostrom et al, 2015). Islam, 2013 was also of the opinion that Disaster Risk Reduction preparedness with a people centered approach was more effective and less costly. For effective Disaster Risk Reduction in Kazungula district, community based institutions and organizations need to be active participants in the DRR process. This is more crucial because the emphasis which used to be placed on humanitarian response and relief activities on national and international level is slowly shifting to a more proactive approach through active involvement of community based organizations and institutions. Actions prior and during

disasters by community based organizations and institutions can mitigate the effects of these events on communities and preserve the lives and assets (Kallet & Peters, 2013).

According to the Kenyan Red Cross and Red Crescent 2015, International Federation of Red Cross, Red Crescent Societies, the Global Health Workforce Alliance, United Nations High Commissioner for Refugees, United Nations International Children's Emergency Fund and World Health Organization teamed up and produced a joint statement that highlighted how effective Community-based workforce can be implemented for emergencies. The Statement highlighted the vital role of community based organization's personnel such as health workers, volunteers, and staffs who work for community based institutions. The appeal by the United Nations to governments and all partners was to invest in strengthening community based organization's Disaster Risk Reduction capacity (UNICEF, 2008). This was supported by Masson & Langstone, 2014, who suggested that some gaps in DRR could be addressed if community based institutions and organizations were active participants in the designing and implementation process. Therefore, the integration process of disaster management activities in community based institutions and organizations cannot be underestimated. There have been moves away from top-down, 'command and control' style of Disaster Risk Management to approaches that are 'people-centered' and include, among others, increased stakeholder participation, responsibility shifts from the authorities to the public, greater transparency in risk/uncertainty communication and social/institutional capacity building (Scholobig et al, 2015)

The integration process in this study refers to the efforts of multi-disciplinary administrative and operational activities aimed at lessening the impact of natural hazards. Examining the integration process of the community based institutions and organizations as a response strategy for 'Disaster Risk Reduction' is very crucial in reducing the impact of disasters in Kazungula District. It is important therefore to increase community based organizations and institutions' capacity to become resilient to disasters through mitigation efforts, as this will reduce the amount of resources in response and recovery (UNISDR, 2011). Members of the civil society and other community based organizations such as the neighborhood health committee and other community volunteers need to be active in DRR activities. Information sharing and decision making cross all levels of the community based institutions and organizations should be used more in the creation of DRR laws (UNISDR, 2009). This is particularly important because the information shared with community members from

community based organizations and institutions is more understandable by the community members.

1.2 LITERATURE REVIEW

Below is the discussion of the studies that have been conducted on community based institutions and organizations and integration process in Disaster Risk Reduction. Major issues as well as gaps for further studies have been highlighted.

1.2.1 Global response to Disaster Risk Management

For many decades, so many organizations such as the Red Cross and Red Crescent Movement played an active role in delivering public education focused on first aid on families and community response preparedness. As early as 1966 the Bangladesh Red Crescent, with support from the Swedish Red Cross, was educating communities and community based institutions by developing people-centered cyclone early-warning systems. The communities were educated on disaster risks, increasing safety and resilience. These activities grew significantly during the International Decade for Disaster Risk Reduction during the 1990 International Federation of Red Cross and Red Crescent Societies (UNSDR, 2011). Additionally, individual and community ownership, commitment and concerted actions in disaster mitigation, including resource mobilization produce a wide range of appropriate, innovative and durable mitigation solutions. These should be cost-effective and sustainable for the affected communities (UNPAN, 2013). There has been positive impact where community based institutions and organizations have been involved in DRR programs. The UNISDR ensured the safety of communities through encouraging coordination of Disaster Risk Reduction activities and by involving various partners (UNDSR, 2011). As a major partner, the government is an important prerequisite for the success of DDR programs. The development and promotion of disaster related policies, legislation and regulatory frameworks are established by the government.

A comprehensive approach to reducing disaster risk was established in the UN Hyogo framework (HFA) in 2005. The HFA is the international blue print for Disaster Risk Reduction. United Nations member countries adopted the Hyogo framework for the effectiveness of DRR. The aim of the HFA framework was to reduce the impact of disasters; socially, economically, environmentally and protecting community assets (UNISDR, 2009). The HFA has five priority areas for communities to build and maintain resilience. The priority areas include ensuring that disaster risk reduction is a national priority with a strong

institutional basis for implementation, identifying, and assessing and monitor disaster risk and enhance early warning signs. The other priority area is the use of knowledge, innovation and education to build a culture of safety and resilience, reduce underlining risk factors and to strengthen disaster preparedness for effective response at all levels (UNISDR, 2004). The HFA highlights National and community institutions recognizing their role and importance of DRR. For countries being able to achieve this; they needed to have legal frameworks that guide and protect every initiative of DRR. There was also need for adequate resources to be able to apply DRR effectively. Another priority area is the local government's ability to gain community support and participation as well as to accept decentralization of authority with regard to DRR (Childs, 2009).

DRR practices were undermined by lack of investment and proper legislation in many countries. This was coupled with inadequate DRR professionals to enforce DRR activities and strategies (UNISDR, 2004). The integration and enforcement of DRR policies at the local level can indicate deficits and strength (UNISDR, 2007). It was therefore important to have proper legislation and frameworks for effective Disaster management.

According to Berkes et al (2013), many nations draw from outdated information and past experience to gain a better understanding of hazards and disasters. There was duplication of work and loss of resources due to inadequate or inappropriate information. This was so because policy and decision making was too often based on previous experiences other than the present prevailing situations of vulnerabilities and risk. (Berkes et al, 2013). This was evidence that where there is a framework and disaster plan, there was no duplication of work and less time was wasted before and during disasters.

It is therefore important to update DRR strategies and experiences which are supported by technology, knowledge and social conventions. This would help the public integrate their particular risk into their culture of preparedness and everyday habits. This would also help the community organizations in making informed decisions for mitigation efforts and disaster risk reduction interventions. The government needed to prioritize active dialogue as well as providing community based organizations and institutions education and training

1.2.2 Southern African countries integration process of Disaster Risk Reduction

Regionally; Southern African countries have not been spared from disasters. According to UNISDR, 2004, in 2000-2001, about 35 million people, equivalent to 13 per cent of the total population in Africa, were affected by disasters. Southern Africa Development Countries

(SADC) Disaster Risk Reduction, Preparedness and Response planning, meeting emphasized on community based and institutions' participation. Apart from Mozambique, all the countries that attended this meeting indicated that the community based institutions and organization's participation in Disaster Risk Reduction was a challenge (SADC, 2012).

In 2000 Mozambique experienced the worst floods, with 45 000 people saved, mostly by local community and community based organizations. The following year, the community based organizations and local teams rescued 7000 survivors (WHO, 2006). The Mozambique scenario showcased a well-organized community based disaster management strategy. Good practices which were based on community disaster management were a key success factor. It applied best practice methodologies of the community for community based disaster mitigation. This strategy used traditional organizational structures and mechanisms (including formal and informal community leaders), and community based organizations, to highlight their capability in reducing risks and prevent life threatening emergencies (WHO, 2006).

Following the election of the first democratic government in South Africa in April 1994, the South African government established an Inter-Ministerial Committee for Disaster Management. This committee was given the responsibility to develop disaster management legislation for South Africa (Botha et al. 2011). In early 2000 the Act was passed, which further established the function of disaster management within the South African public. However; the new legislation for South Africa in regard to Disaster management left community based the community (Van 2009). The community based institutions and organizations felt that the government did not involve them enough in disaster prevention, decision-making and implementation (Bortha et al. 2011).

Despite WHO encouraging governments to include the local organizations and institutions in DRR, there was minimal indication that most Southern African countries did so. There was minimal evidence of community based institutions and organizations' active participation in Disaster Risk reduction activities in the Southern African Countries.

1.2.3 Zambian policy on risk reduction and disaster management

In Zambia, the Disaster Management Unit (DMU) was still in development stage, hence the observed uncoordinated organizational system. Though there was a policy that guides DRR

programs, there was still no legal framework to guide disaster management in the country. Kenya Red Cross society and International Red Crescent (2015) research findings noted that there are multiple public agencies and departments that play critical role in disaster management. The study further showed significant weakness; due to lack of policy, in terms of coordination, risks of duplication and bureaucracy that could negatively hamper international humanitarian assistance. The study corresponds to the Zambian situation where the legal framework is still being developed. The scenario in Kazungula showcased weaknesses with poor coordination among actors in disaster risk reduction. In 1991, the Government of the Republic of Zambia launched radical health policy reforms characterized by a move from a strongly centralized health system in which the central structures provided support and national guidance to the peripheral structures. The following priority areas of health services were identified for inclusion in the basic health care package: nutrition; environmental health; control and management of communicable diseases; malaria; tuberculosis; epidemic and disaster prevention, preparedness, and response; school health; and oral health (Demographic and Health Survey, 2007). The reforms included Disaster prevention, preparedness and response. This would encourage health institutions and organizations to be more actively involved in Disaster risk reduction activities in the districts and community levels.

Part IV of the Disaster management act under the title “District and Satellite Disaster Management Committees” provides for the establishment of a District Management committee that coordinated the disaster at district levels (DMMU, 2009). The policy highlighted the recruitment of volunteers to provide or assist in the provision of any management services during and after disasters (Disaster management Act, 2010).

A project by OXFAM was done in Mongu with an overall goal of improving government capacity to lead and manage comprehensive and effective disaster risk reduction and emergency response from national to local levels. This ‘Community- led Disaster Risk reduction project’ was done in six communities with an intention to evaluate the success of the communities in promoting resilience to climate shocks among supported household (OXFAM, 2013). These communities experienced perennial flooding which led to crop failure and property destruction. However, this project had not included all actors such as community based institutions to promote DRR integration (MOF, 2014). The project dealt

with the community members with minimal interaction with other actors, such as Health institutions, Business community and Schools.

1.2.4 Current situation with regard to community based institutions' engagement in disaster management in Kazungula District

The community based institutions in Kazungula District, Zambia, were not much involved in planning, implementing, monitoring and evaluation of the disaster management and risk reduction activities (Kenmani, 2013) but the information was not adequate to make any conclusions, thus the need to carry out this study. As urged by Islam (2013) provincial and district level disaster preparedness planning process by the Disaster Management committee members has helped in institutional capacity and confidence building among local officials to deal with the annual flooding and other disasters. It is worth noting that Kazungula is one of the Districts that are included in the Pilot project for Climate Resilience (PPCR Phase II) in the Barotse sub-basin where strengthening of institutional frameworks is encouraged. The project, however, doesn't include other actors, such as health care, schools and other grass root organizations in their implementation and evaluation process. It was also noted that no study has been done in the Kazungula District to analyze the integration process of local institution and organizations within the Kazungula District Disaster Reduction system. The study that was done by Chmutina and Boshier (2015) found out that DRR activities also depended on the capacity of local government administrators. This was for the acceptance and recognition of rules of civil society. This was not in line with Kazungula District Disaster Risk Reduction system where most activities were under the jurisdiction of the District commissioner's office. The study further argued that the general public being the most important stakeholder (whether they are aware of it or not) should be central to such holistic approach. However; the general public in Kazungula district, as pointed out by respondents during the focus group discussions, is seen as vulnerable who are on the receiving end. It was therefore important the community based organizations and workers are recognized as important partners in the disaster risk reduction process.

1.3 Conceptual frame Work For Disaster Risk reduction

The framework that guided this study was adapted from Marcus Oxley (2005) Tear fund conceptual framework for Disaster Risk Reduction. The framework consisted of five steps

where different factors, institutions, and actors are reflected. Step 4, which is the main focus for the study reflected institutions and organizations as part of the integral part in Disaster Risk Management. It also depicts policies and practices of these institutions and organizations.

Fig 1 Understanding integrated Disaster Management

Adopted from Marcus Oxley, 2005

As mentioned earlier, the focus for this study was on step 4 of fig 1 where different institutions, organization and the community play a role in disaster risk reduction. The legal frameworks, policies and strategies that helped the integration of DRR of local organizations and institutions were analyzed.

1.3.1 Organizations and actors involved in DRR.

According to part 4 of the framework that was adopted for this study, it was critical to involve all stakeholders to promote a culture of resilience. Since risk management included uncertain outcomes that affected different parts of the population to different degrees, it is essential to integrate the knowledge, values, and interests of stakeholders in the risk policy making process (Ortwin, 2015).

Government

The UN recognized the importance of the focus of national governments to shift from reactive responses to Disaster Risk Reduction. As mentioned earlier, top down management of disasters had proven to be rigid and ineffective. To achieve this, local government and community based institutions should be the major participants in disaster risk reduction strategies. According to UNISDR (2007), the local government should be the primary participant and focal point for disaster management.

Education

Marilise et al, (2013), was of the opinion that education could take many forms, from formal schooling and technical or vocational training, to mentoring of children and youth by family members and community elders. A right in itself, education is regarded as the foundation for individual and societal development. The Zambian government encouraged players in DRR to attend regional courses where Disaster Risk Reduction (DRR) and disaster management were taught. Participants from various institutions had in the past attended this course. At tertiary level, the Mulungushi University and the University of Zambia introduced courses relating to disaster management in their curricular (Scot & Marcela, 2011).

Health institutions

According to W.H.O, 2007, institutionalizing risk reduction and emergency preparedness programs in the ministries of health and establishing an effective all-hazard/whole-health program for this purpose was of paramount importance. W.H.O promotes the establishment

or strengthening of a risk reduction and preparedness unit in each Ministry of Health. This unit was the focal point for the designated national emergency management Risk reduction and emergency preparedness for other sectors involved in emergency preparedness and response.

Grassroots organizations

The grassroots community organizations in Kazungula District included nongovernmental organizations that were working to create awareness on climate change and adaptation in Kazungula District. As mentioned earlier, the Strategic Program for Climate Resilience (SPCR) was one of the grass root organizations that was dealing with climate change and promoting resilience in Kazungula district. Other grassroots organizations included neighborhood health committee, business community, community volunteers and community institutions such as Red Cross and other nongovernmental organizations.

Institutional Frameworks

The institutional framework of the Disaster Risk Management (DRM) agencies could often determine how strong national authorities were coordinated between national ministries, UN organizations, international organizations and nongovernmental organizations. A National Platform for Disaster Risk Reduction should be the coordination mechanism for mainstreaming DRR into development of policies, and planning the programs of HFA (UNISDR, 2007).

Regional and sub-regional organizations and countries are making efforts to develop their policies, legislation, plans with the actors involved in disaster risk management. Contrary to ISDR (2014), disaster risk reduction was yet to be effectively institutionalized in Africa. Policy and decision-makers were more likely to base decision-making on research findings. Morgan et al (2011) was of the opinion that policy on evidence was understood to be particularly important during recovery from major disasters.

CHAPTER 2 STUDY FOCUS

2.1 Statement of the problem

From the previous studies in the Sikaunzwe community Kazungula District, it was not clear how community based organizations and institutions engage disaster risk reduction in the Kazungula disaster reduction process. Kazungula District had a Disaster management plan in place which actors were not aware of and disasters were managed reactively other than proactively. There were no Disaster Risk Reduction experts who could coordinate or train other actors in disaster risk reduction activities. Overall the integration process of Community based structures and institutions in disaster risk reduction system has not been optimized (Yande, 2009). This limited integration process of community-based institutions and organizations such as the neighborhood health communities, traditional leaders, and community based health workers in the disaster risk reduction system has been cited as partly contributing to inadequate disaster risk reduction response in the district.

Kazungula District in southern province was among the districts that were struggling with the challenges resulting from flood and drought disasters. The UNICEF report of 2008 indicated that Kazungula District was affected by floods or droughts and the response was more about reactive than proactive. The flooding made the area inaccessible by road and approximately 4,000 people were affected (UNICEF, 2008). An estimated 2,500 people were in need of immediate assistance in the form of shelter, food aid, medical care, water supply and sanitation (DREF, 2006). The floods caused displacement of people from their usual dwelling places because the floods had an impact on infrastructure, crops, health, education, environment as well as damage to property (Yande, 2009). In general, flood water increased the risk of malaria, and other water borne diseases such as Cholera Dysentery, hepatitis A and typhoid fever. Exposed populations were also prone to Acute Respiratory Infections as a result of exposure. The affected populations were also at risk of having snake bites and insect stings for the fact that, rodents and other insects may retreat to the same dry areas as the human population. The affected Population had limited access to health facilities due to damages on roads and health infrastructures. Flood disasters to a larger extent affected stocking levels of medical supplies (e.g. Medicines, cold chains) and negatively impacted on important program such as Maternal and child Health, including HIV& AIDS. Due to floods and droughts, the population was at risk of malnutrition to all age groups with a special impact on the under five children due to lack of food. The affected individuals undergo

different types of trauma, ranging from physical and psychological and needed immediate treatment and counseling services respectively. There was a high risk of drinking water contamination due to flooding of sanitation facilities such as latrines and septic tanks, rendering susceptible populations to water borne diseases as mentioned above. The affected populations were also prone to hygiene related diseases such as scabies and other skin disease.

Despite this, there was evidence of limited integration of Disaster risk reduction activities by local institutions and organizations in Kazungula District. There was also limited knowledge of the factors that facilitated or inhibited the integration of local institutions and structures in the district disaster management in the Kazungula District of Zambia.

2.2 Justification of the study.

By providing information on factors that are facilitated and inhibiting the integration of community structures such the neighborhood health communities in the disaster management system at the district, the study provided information to policy makers and program managers on how to strengthen the integration process and overall response in Kazungula District. It was therefore important to fully understand the roles of community based organizations within the framework of Disaster Risk Reduction. This in turn could be used to develop the flood hazard and risk profiles which can be used to design appropriate measures to manage and mitigate the disasters and build People's adaptation capacity and resilience (UNICEF, 2011). Studies that were undertaken in the recent past showed that despite the increase in the frequency and magnitude of disasters such as floods, no comprehensive impact assessment study on engagement of community based institutions and organizations in DRR was undertaken. Community based organizations normally had reactive actions to disasters, making the response more costly, not only to the health of the people, but to the government and respective donors who assisted during disasters. There was, therefore, need to carry out a study that would analyze how community institutions and local government were engaged in flood disasters in Kazungula district.

The research question was how the local organization and institutions were integrating Disaster risk reduction process within the Kazungula District reduction system.

2.3 General Objective of the Study

The overall objective of the study was to critically examine and describe the integration process of the local institutions and organizations within the Kazungula District Disaster reduction system.

2.3.1 Specific Objectives

The specific objectives of the study were:

1. To describe the Disaster reduction process, activities and systems in Kazungula District.
2. To identify community based institutions and organizations that were involved in Disaster risk reduction process in Kazungula District.
3. To analyze the factors facilitating and constraining the integration of the community based institutions and organizations within the Kazungula District Reduction system.
4. To document strategies, for enhancing the integration and participation of Disaster risk reduction system.

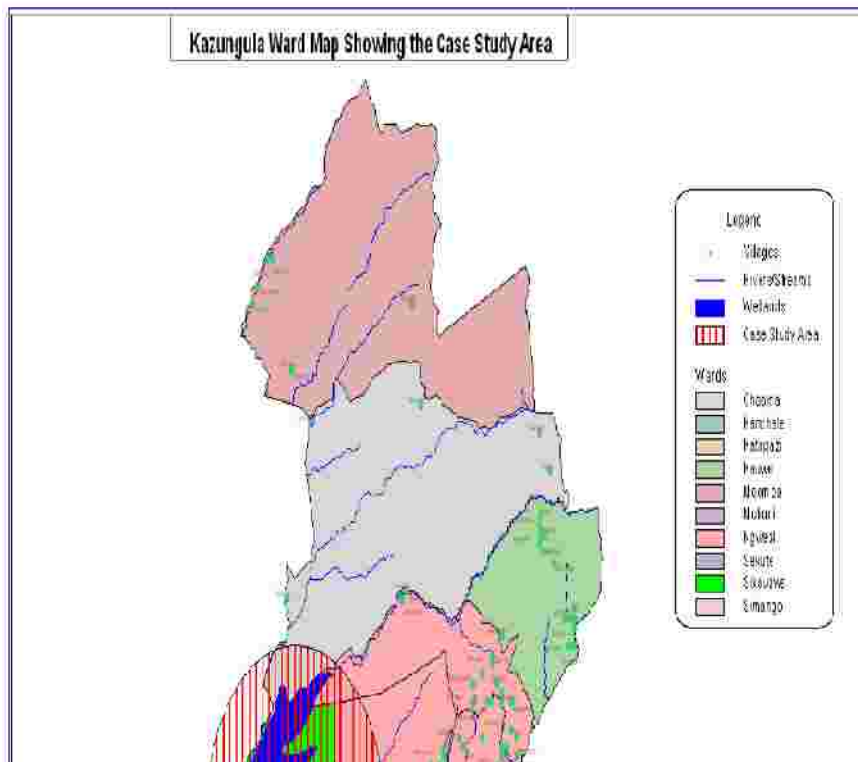
CHAPTER 3 METHODOLOGY

3.1 Study setting

The study was conducted in the Kazungula district of the Southern Province of Zambia. Kazungula District is about 80 kms from the tourists' capital of Zambia, Livingstone. The study area is in a low-lying, severely flood prone area (wetlands). The targeted communities were located along the Ngwezi and Kasaya river, which flowed into the Zambezi River. The population along the river had grown over the years and more than 7,000 people live in this area (UNICEF, 2008).

The communities were selected because they experienced floods for three (3) consecutive rainfall seasons. They were also selected due to their geographical location as the communities' lies along the river line and are prone to flooding.

Figure2: Map of Kazungula District showing flood prone area (shaded)



3.2 Study population

The target population, for the study was institution workers and community based organizations' informants.

3.2.1 Inclusion criteria

- All workers from Government and non-governmental institutions who had worked for more than two years were eligible for selection for the study.
- All community members who volunteered or worked with community based organizations and had stayed in the community for more than two years.

3.2.2 Exclusion criteria

- All workers and community based volunteers who had worked or stayed in the community for less than two years were not being eligible for the study.

3.2.3 Sample size and selection.

The working sample of key informants from Government and non-governmental institutions was 13, selected purposively for the study. Purposive sampling was entirely based on the judgment of the researcher, in that a sample is composed of elements that contain the most characteristics, representative or typical attributes of the population (Strydom et al, 2005). The organization where the participants were drawn is shown in table 1

Table 1: *Organizations and number of participants*

Organization	No of respondent
Ministry of Health	2
Local government	2
Ministry of Education	2
District commissioner's office	2
Ministry of Agriculture	1
SPCR	1
CBNRMF	1

ZRCS	1
Business community	1
	13

Two respondents were interviewed from the Ministry of Health, Education, District commissioner's office; District council, International non-governmental organizations and one from the Ministry of Agriculture, Business community, and National non-governmental organization

Fifteen informants participated in the two focus group discussions that were held at Sikaunzwe and Kasaya as shown in table 2

Table2: characteristics FGD respondents according to gender

Focus group respondent	Gender
Mobilization chairperson	Male
Resettlement chairperson	Male
Women chairlady	Female
Resettled member	Male
Health neighborhood	Male
Community health worker	Female
Community head man	Male
Resettled member	Female
Resettled member	Female
Business community	Male
Malaria Agent	Male
Community based distributor	Female
Community member	Female
Water gauge reader	Male
Community reader	Male

Nine informants who participated in the focus group discussion were males while six were females.

The focus group discussions lasted about 30 to 40 minutes. The focus group discussion was done at the community level in the venue selected by the community members. Each focus group discussion was recorded and coded at the end of each discussion.

3.4 Research study design

This was a *qualitative case study design* of the integration process of the community based institutions and organizations in the Kazungula Disaster management system.

In-depth interviews were done using interview guide and the focus group discussion was done using the focus group discussion guide. In-depth interviews were done at the respective institutions in a private room. The interviews lasted 30 to 40 minutes. As indicated above, discussions for Kasaya comprised of 5 participants while 10 Participants from Sikaunzwe participated. The discussion lasted 30 to 45 minutes. Focus group discussions for Kasaya was held at Kasaya Community at the chairperson's home while the one in Sikaunzwe was held at Namapande community school that is located within the Sikaunzwe catchment area. These venues were selected by the community members. For both the in-depth interviews and focus group discussions; no names were used, and unique numbers were allocated for each informant. This was to promote confidentiality.

3.5 Trustworthiness of the study

To promote the trustworthiness of the study, a pilot study was done in Mambova area. Mambova has similar characteristics like Sikaunzwe and Kasaya. Its location is along the Zambezi river and the community had similar economic activities such as fishing and farming just like those in Kasaya and Sikaunze. The tool was amended to make it more clear and simple to the participants without changing the idea of the study. This ensured reliability of the instrument though for the study.

3.6 Data management

Data collection technique is the process of gathering information needed to address a research problem (Pilot and Hungler 1997).

Data was collected in February 2015 over the period of two weeks. Every morning the researcher and assistants would go and meet participants in their various areas of operation. All the participants from community based institutions spoke English, so the interviews were done in English. In the focus group discussions, the interview guide was translated in Lozi the local language of the study communities. The translation was done by Zambia broadcast local languages section workers based in Livingstone.

Data analysis is the systematic organization and synthesis of research data and using the testing of research hypothesis using this data (Polit and Hungler 1997).

After the collection, the data was checked for completeness and was arranged accordingly. All recorded interviews were transcribed and translated verbatim, and were stored with a special code in the computer. The data were then transcribed on NVIVO 10 version 10 (QRS Australia). Interview transcripts were then coded, and the codes were compared for similarities and differences by conducting within-and cross-case analysis.

The information was analyzed by thematic analysis. Thematic analysis is historically a conventional practice in qualitative research which involves searching through data to identify any recurring patterns. A theme is a cluster of linked categories conveying similar meanings and usually emerged through the inductive analytic process which characterizes the qualitative paradigm (Boyatzis, 1998). Each script was read through several times and physical notes were made. Relevant words were labeled as well as relevant phrases, sentences and sections. This helped in establishing foundational sets of codes, themes and patterns before starting coding the transcripts of the software. After the initial manual coding, the data were translated in the software. “A code in qualitative inquiry is most often a word or short phrase that symbolizes assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data (William, 2013).

3.7 Ethical considerations

Ethical consideration was applied when doing this study. For this study, approval was sought from ERES converge and the reference number is 2014-May-029. Permission was obtained from the office of Kazungula District commissioner’s office and local government office.

3.7.1 Respect for persons and confidentiality

Permission was also sought from Heads of institutions and written consent was gotten from the participants themselves. Interviews were conducted in private spaces in specific institutions to ensure confidentiality. No names were used on questionnaires. Identifications of participants were through giving private numbers.

3.7.2 Beneficence

In this study, the ethical risks were minimal because no administration of invasive procedure was done. The study, however, could have caused psychological stress and loss of time on the

part of the participants. The participants were not given any direct, immediate benefits as they were being interviewed within their respective community and institutions.

3.7.3 Fairness

Everybody eligible was given an equal chance to participate or decline. Ethical clearance was sought from Excellence in Research Ethics and Science (ERES). Approval was also obtained from respective heads of institutions and organizations.

3.8 Plan for dissemination and disposal of research materials

The executive summary will be given to the institution heads and the District Commissioner's office. Soft and hard copies of the study will be submitted to the Department of Public Health, and the University of Zambia graduate study directorate. All research materials containing participant responses will be destroyed after seven (7) years in line with ethical approval standards. The voice recordings were deleted immediately after transcription of the interviews.

CHAPTER 4 FINDINGS OF THE STUDY

This section describes the major issues from interviews and focus group discussions with key informants from community based institutions and organizations in Kazungula District. The findings were categorized according to the objectives of the study.

4.1 Organizational Disaster risk reduction

The following was the organizations and institutions' Disaster risk reduction process in Kazungula District. Actual quotes were cited from respondents representing different organizations.

Local Government Kazungula District Council

Two respondents were selected from the local government for the study. These respondents were involved with community mobilization and sensitization on climate change resilience. They also identified community members who worked with the council to this effect and were the focal point persons for a World Bank project that supports the mitigation and adaptation interventions in Kazungula District. Some of the projects they were involved in included the Pilot project for Climate Resilience (PPCR Phase II). This project's focus is the community to develop systems and adoption methods, especially when the area is prone to disasters such as floods or draughts. In Kazungula in Particular, the community is encouraged to build special raised infrastructure because of the area's prone to flood disasters. The project also empowers community members, especially the venerable such as widows; orphans and women headed households. This is in an effort to make the community resilience to climate change and provision of adaptive measures when there is a disaster such as floods in the District. The citation was below;

'We are involved in Community sensitization under climate change programs and community sensitization under PPCR and other programs'. AO

Ministry of Education

Stakeholders from Ministry of Education in Kazungula District were District planning officer and a head teacher from one community school in Sikaunzwe. The District planning office in Kazungula District was not actively involved with Disaster risk reduction activities in the District, apart from advising the community not to build schools in low-lying flood

prone areas. This was also a rare activity considering that schools were not built frequently in the District. The head teacher, however monitored teachers and learners to ensure teaching and learning was taking place. The school taught learners the causes of drought and floods. This was embedded in the school syllabus where learners were taught the dangers of cutting down of trees and charcoal burning, which in turn contributes to climate change. Below is one of the citations from the head teacher;

'In case of drought or floods, I teach learners the causes of drought i.e. Excessive cutting down of trees, charcoal burning, which is embedded in the syllabus' Head teacher

Ministry of Health

Two respondents from the ministry of health were selected for the study. The office reported being involved in health promotion activities, epidemic preparedness and risk mitigation of affected communities in Kazungula District. The District office also coordinated medical activities when there was a disaster in the District. The District Health office was the focal point for medical intervention during disasters. The ministry of Health was also involved in emergency response when there was a disaster in the district. The explanation was cited as below;

'We conduct health promotion activities during disasters, epidemic preparedness and risk mitigation of affected communities. We also respond to emergencies and our team is on site to provide first Aid to those who need immediate care.' DHO

The Nurse was not normally actively involved in Disaster planning activities, though she was involved with health education during disasters. This was done at the health center because she was alone and health centers were normally understaffed. As the health care provider at the grass roots; the nurse provided first Aid to injured persons during disasters and referred those that needed a referral. She identified potential threats such as contaminated water and reported to relevant authorities. This is what the nurse said;

'Nothing much apart from giving health education when there is a flood disaster. You know am alone and I just advise people as they come to the health center. We identify

threats such as contaminated water and report to the district for intervention and refer those who need a referrals' Nurse

District Commissioner's office

Two respondents from the District commissioner's office were selected for the study. The District commissioner's office was a focal point office for the disaster mitigation committee in the District. The office coordinated all stakeholders when it came to mitigation activities in the District. The District commissioner's office developed the Disaster management plan for the District. The District commissioner's office was also a recipient of donations on behalfs of the affected communities and distributed it through other stakeholders like the Red Cross Society of Zambia. They also communicate with higher authorities such as the office of the Vice President in regard to potential threats or disasters in the district. One respondent had this to say;

'The District commissioner's office is the focal point persons in the district disaster management system; the office coordinates meetings with stakeholders and develop a disaster management plan.' AO

Zambia Community based Natural Resource Management Forum

One of the stakeholders was the Zambian community based resource Management Forum. The organization was involved in disaster risk reduction activities through sensitization of the community on preservation of natural resources such as trees and wildlife. The CBNRMF worked hand in hand with the local government in Kazungula District, in achieving this objective. The CBNMF was an organization that worked with the grassroots to mitigate the effects of climate change through natural resource management. The organization trained community members in various activities such as preservation of soils, water and vegetation. In conserving nature, they prevented climate change that caused disasters world over including Kazungula District. The respondent had this to say;

'We educate the community of dangers of damaging the natural environment where they live. Some of the dangers are deforestation causing destruction on the horizon disturbing the rain pattern causing floods or droughts'. PD

The Strategic Program for Climate Resilience (SPCR)

The SPCR was an international nongovernmental organization that was implanting a project on climate change and adaptation in Kazungula District. The program aimed at sensitizing the community on climate change and adaptation methods. They reached the community, through radio programs on early warning of an impending disaster and preparing the community beforehand, to mitigate the effects of the disaster. They also gave out handouts such as goats, to affected communities to lessen the impact of a disaster. The program received first-hand information on effects of Disaster in the community through community interaction using community leaders. They worked with the community to develop plans on how best the community could adopt to climate change. The program manager said;

‘We also conduct awareness through radio programs on early warning signs of a disaster and giving out hardware like goats and early maturing seeds’. PM

Ministry of Agriculture

The Ministry of Agriculture was involved in early warning of farmers in terms of floods, droughts and other adverse conditions like conservative farming. They also sourced funding for mitigation activities such as construction of dams for irrigation in areas that experienced droughts. The Ministry of Agriculture also worked with the community to monitor threats such as arm worms that was declared as a national disaster in 2013- 2014 farming season. They educated the community on methods of farming in relation to the year’s meteorological report. They encouraged farmers to diversify on crop production so as to mitigate the effect of climate change. The Ministry of Agriculture was involved in early warning of farmers in relation to likely disasters such as flooding in Kazungula District. They worked hand in hand with the meteorological Department to know which disasters are likely to occur in the area. The role was explained as below;

‘The Agriculture Ministry is involved in the early warning to farmers, through farmers’ sensitization programs. In terms of floods, droughts and other adverse conditions the farmers in Kazungula District are advised accordingly, like conservative agriculture’. AT

Business community

The participant was a resident of Kasaya, a community that was affected by floods in 2006. As a member of the community that faced a disaster previously and more likely in future, he was involved in mitigation activities such as helping relocating families from the water logged area to the roadside that served as a temporal safe haven. He also participated in raising the residential area, with gravel, so as to create a high land during floods where families can relocate. The business stakeholder encouraged other community members to actively participate because relocating to another place is not favorable. The Business Community in Kazungula District was also involved in some other Disaster risk reduction activities when there is a flood disaster. The other activities are dictated by the situation at that point in time. The businessman cited his role as below;

‘The last time we had a flood disaster, we participated in building the high level area so that next time there is a rise in water levels, our homes and buildings will be safe. We also participate in other activities as the flood occurs’. BM

The Red Cross Society of Zambia

The Red Cross was one of the important organizations dealing with disasters. Zambia Red cross society was one of the major players in Disaster Risk reduction in Kazungula District. The organization was one of the first responders when there was a Disaster in Kazungula District. The organization worked hand in hand with the District commissioner to mitigate the effects of Disasters. The ZRCS organization worked with the District commissioner’s office, to design and implement disaster risk reduction plans and activities, in the District. The Red Cross was involved in identifying affected groups and helped in relocating, resuscitation, and provision of basic needs such as tents, food and water. They also document disastrous events and reported to the donor community. The Red Cross also identified affected groups that needed referrals and referred them accordingly.

They also compiled data regarding the disaster and reported to the relevant authorities. The officer in charge of Red Cross explained his roles as below;

‘When there is a disaster, our organization helps with relocation of the affected to safe haven. We also provide the basics like tents, food and blankets. We report the

disaster to the donor community and lobby for funding. We identify the injured or most affected and refer them accordingly'. ZRCS Kazungula

Grassroots organizations- Sikaunzwe

The participants that were drawn from the grass root organizations in Sikaunzwe were the health neighborhood, the community chairpersons and women's groups. Most of the participants were victims of the 2006 flood disaster who were resettled in highlands in Sikaunzwe. Apart from being victims of the disaster, these organizations helped each other to resettle in the new area. They helped each other build a new shelter, counseling and even identification of new livelihood activities such as charcoal burning.

They also coordinate with other organizations in finding solutions in dealing with the disaster affecting them through community mobilization and brain storming. The grass root organizations in Sikaunzwe register members affected by the disaster and submit the list to the relevant authorities for their attention and action. They also arranged for transportation of sick community members and referred them to the hospital. Some of the exemplified quotes from the focus group participants were as follows;

'I'm in charge of registration of displaced people who were settled in this community'.

RC

Grassroots- Kasaya

The grassroots organizations in Kasaya included the community leadership, malaria agents, traditional birth attendants and traders. The community organizations in Kasaya's involvement in disaster risk reduction included monitoring of water levels in Kasaya by use of the water gauge. They also helped with household members to relocate if there are signs that a flood is imminent. They also communicated with relevant authorities such as the District commissioner to mitigate the effects of flood disaster.

Some of the quotes are,

'I hold the water gauge that we were given by the government and I plot it every morning to assess water levels'. VH

4.4 *Factors that facilitated and constrained the integration Process*

Factors that facilitated and constrained the Disaster Risk Reduction integration process were generated from the nodes during data management. The actual citations in regard to facilitators and constraints are also highlighted.

The availability of Disaster management plan being in place was one of the strengths that would aid in the Disaster Risk Reduction process. This was explained as below:

‘We have a Disaster management plan in place; though some of our partners are not aware of the same’ DA

Some of the organizations cited are involved in climate change projects that would help the community’s resilience to flood and drought disasters. The example of such organization, citation were as follows;

‘We work with the SPCR project to sensitize the community on climate change. This in turn will help the community to be resilient to disasters’

The community based organizations also had already systems in place that would help in combating disasters. These organizations worked with different stakeholders in the community. Members from community based organizations were already holding positions that will help the smooth integration of Disaster Risk Reduction activities. The below citation was an example of the community organization’s position holders;

I help with resettling of displaced families at the safe haven’ RC.

Another factor that facilitated the integration of the community based institutions and organizations were that some community organizations were already involved in some DRR activities. Some of the activities the community based organization activities were cited as below;

‘My main role is to plot the water gauge so as to monitor the water levels of the Kasaya river’. VH

The community based organizations and institutions had, however, constraints during the integration of Disaster risk reduction activities. Some of the constraints that were cited were the following;

- *Inadequate resources*

Inadequate resources such as human resource, money and transport were cited as constraints when designing or implementing Disaster risk reduction activities. Other resources such as trained manpower on disaster management, and transportation to disaster prone areas, were also barriers to implementing disaster management activities. The lack of funding was explained as follows;

‘No funding for DRR programs we have no vehicles and trained manpower to carry out these programs’. DO

- *Unclear guidelines and lack of working Framework*

Most organizations cited lack of clear guidelines and working framework as a hindrance to implementing Disaster risk reduction activities. The organizations cited lacking the working framework was a hindrance to DRR activities. Due to lack of proper guidelines and guidance; organizations ended up colliding in their work causing duplication of work when there was a disaster. Some of the quotes are as follows,

‘Non availability of working framework for field activities implementation’ AT

- *Inadequate training on Disaster risk reduction*

Training or inadequate knowledge was cited as one of the challenges in the Disasters Risk Reduction process. The stakeholders indicated that they needed training in the following way;

‘No training to perform better and no clear guidelines’. EO

- *Attitude of the affected community*

Additional constraints when designing or implementing Disaster risk reduction activities the participants cited include the attitude of the community. The affected community was cited as being uncooperative in most cases, especially where relocation is concerned. Below is how the challenge was explained;

‘The affected people usually resist change of moving from one place to another in the process of serving their lives’ DO

The community based organizations in Kasaya however, felt that other stakeholders dealing with climate change are just forcing things on them. They didn’t want to just follow directives such as relocating. The organizations did not know which District they belonged to and were not sure of whom to report in case of a disaster. One of their arguments was as follows;

‘Tell the government we don’t want to relocate, and those people from climate change use technical words, so we can’t understand’ Kasaya focus group discussion

The community based organizations in Sikaunzwe were affected by high poverty levels after losing their properties during flood disasters. They also lacked stability because the allocated land was not a permanent relocation site. The long distance to health facility was one of the major challenges they faced in their new resettlement area. Their lamentations were cited as below;

‘We are very poor; we lost property during the floods. We can’t feed our families and this land we were given is not ours, we were warned that we may be relocated again’ MC

According to the findings of the study; different community based organizations had some disaster risk reduction activities. The District Commissioner’s office is the focal point of the disaster risk reduction process in Kazungula District. Institutions and organizations face some challenges in designing and implementing Disaster Risk

Reduction processes. The institutions and organizations did not optimally integrate Disaster Risk Reduction process in Kazungula'

CHAPTER 5 DISCUSSION

The main objective of the study was to analyze the integration process of organizations and institutions in Disaster risk reduction process in Kazungula District. To achieve this, two focus group discussions and thirteen in-depth interviews were done. Participants in the focus group discussions were members of the community organizations such as the health neighborhood health committee and community volunteers. The informants for the in-depth interviews were staff working in government and non- governmental institutions in Kazungula District. All the participants were purposefully selected for the study. The discussion of the findings will be according to the research objectives.

5.1 Disaster risk reduction processes and activities in kazungula District.

The disaster risk reduction process and activities in Kazungula District will be based on the themes that were developed during the analysis of the collected data. The themes that were generated include partnership and inter-organizational co-ordinations, governance, frameworks and guidelines.

5.1.1 Partnerships and inter-organizational coordination

Kazungula District disaster management system, partnerships and inter-organizational coordination is still developing, but there was evidence of some organizations working together. The District commissioner's office worked with the local government and the Red Cross Society. The local government also worked with the non-governmental organizations in climate change programs. This was in line with Kallet and Peters (2013) who suggested that no single group or organizations can address every aspect of DRR alone because disasters have complex problems that demand a collective response. Co-ordination even in conventional emergency management is difficult, for many, organizations may converge on a disaster area to assist. Across the broader spectrum of DRR, the relationships between types of organization and between sectors (public, private and non-profit, as well as communities) become much more extensive and complex. DRR requires strong vertical and horizontal linkages (central-local relations become important). In terms of involving civil society organizations, it should mean thinking broadly about which types of organizations to involve. However; other actors such as the education district office was completely left out in the planning; implementations and evaluation of disaster risk reduction activities. Kallet and Peters were in the opinion that organizations have meetings prior to disasters, and to plan the

way forward. This was not the case in Kazungula District; for there was no evidence that organizations hold meetings in regard to disaster risk reduction unless when there was a disaster in the district.

5.1.2 Governance

In Kazungula District; Disaster Risk Reduction is governed by the office of the vice President through the District commissioner's office. The District commissioner's office is a direct link to the government and reports directly to the office of the vice President (DMMU, 2009). The finding corresponds with Mitchell and Wilkinson (2013), who argued that the DRR approach requires redefining the role of government in disaster reduction forum. It is generally agreed that national governments should be the main actors in DRR because of its' duty to ensure the safety of citizens and the resources. The government has the capacity to implement large-scale DRR, a mandate to direct or coordinate the work of others, and they create the necessary policy and legislative frameworks. These policies and programs have to be coherent.

5.1.3 Policy, framework and guidelines

Kazungula District had no framework or guidelines to guide the actors in disaster risk reduction activities. This is contrary to Mitchell and Wilkinson (2013)'s argument that are of the opinion that National policy; frameworks and guideline were a necessity for disaster risk reduction process to be achieved. Mitchell and Wilkinson (2013) further argued that humanitarian investment is currently spent on responding to disasters rather than managing the future risks. Kazungula District disaster management system's humanitarian investment is spent on responding to disasters, and this is in line with Mitchell and Wilkinson's observation. If this pattern continues, the researchers argued, then "spending on reconstruction and relief will become unsustainable." A more developed evidence base, enhanced political commitment, and dialogue across policy areas will be needed for this mainstreaming of disaster risk management to happen. As UNICEF (2011) observed

disasters were managed reactively than proactively in Kazungula District, making the operations more costly.

5.2 Community institutions and organization's engagement in Disaster Risk reduction

In Kazungula District, evidence was found, suggesting that different organizations and institutions engaged in disaster risk reduction activities in different ways. The local government or the District Council's involvement included community sensitization on climate change through the Strategic program for Climate Change (SPCR) project. The local government's engagement is in line with the UNDSR (2011) report that highlighted the importance of community based institutions and organizations' role in disaster risk reduction and climate change programs. The involvement of local institutions and grassroots organizations in DRR and climate change make people to be aware of the impending risks and be able to mitigate them. This is not only effective, but cheaper and sustainable (UNDSR, 2011). Contrary to Magdi (2011), the local government was not the primary response to the Disaster Risk Reduction activities in Kazungula District.

The District Commissioner's office was the focal point office for disaster risk reduction activities in Kazungula District. The District Commissioner's office being a direct link to the office of the vice President, where the Disaster Management and Mitigation Unit were located, was a hub of information sharing. This was in line with the Hyogo framework (2010) which highlighted that the district management consultative forum becomes a key forum for information exchange among stakeholders. The District commissioner's office in Kazungula District developed a disaster management plan as per recommendation of the Disaster Management and Mitigation unit. When there was a disaster in the District, the office shared information with other stakeholders on what was expected to be done to mitigate the effect of the disaster. The District commissioner's office worked with other stakeholders such as the Red Cross, the community and the District Council. However, other stakeholders such as education sector were not aware of the existence of the disaster management plan. It is for this reason the researcher argues that that information sharing was minimal among the stakeholders.

The Ministry of Health as one of the stakeholders in DRR process, in Kazungula District, was the focal point for medical emergency preparedness. As argued by McEntire (2015), the health emergency preparedness was complex and required health care executives to develop

an all hazard emergency preparedness plans; relevant to their location and type of organization. The Kazungula District health office had its own disaster management plan. The District Health office was involved in the Disaster Risk Reduction activities through epidemic preparedness activities such as procurement of essential drugs and health, information, education and communication. The health care system was disjointed from other key institutions in the District and worked with the Ministry of Health, in disaster risk reduction activities.

The District education office in Kazungula district had minimal disaster risk reduction activities as eluded by the respondent. As highlighted by Marilise et al (2013), schools were an ideal setting for learning to take place and they served as a hub for community activities. Contrary to Marilise et al (2013), the Ministry of Education, in Kazungula District seemed to be at a loss concerning disaster risk reduction activities in the District. Individual schools, as cited by the head teacher, however, taught children on climate change topics such as dangers of cutting down trees. Despite the specific schools hosting various meetings, including climate change programs; the information shared with children on disaster risk reduction was minimal. According to Mudavunhu et al (2015), the greater resilience to disasters requires that children's voices are heard and recognized as central to improved disaster risk reduction. Arguably, the children are not much involved in disaster risk reduction activities in Kazungula district, and this puts them in a vulnerable position. As Marilise et al (2013), highlighted ensuring that education services were resilient to hazards was very vital to lessen the effects of climate change, and disaster risks, by educating the populations at risk, children inclusive. As UNICEF (2011), suggested, the children are not only put in a vulnerable situation; but their education is also disrupted. This creates a danger of prolonged school years, making children lose hope, making some dropping out of school at an early age.

The Ministry of Agriculture worked with the meteorological department in the quest to advising the farmers promptly and effectively on the rain pattern in relation to climate change. UNDSR (2009), the report highlighted that rural livelihoods that principally depended on rain-fed agriculture were particularly vulnerable because their activities were by nature climate sensitive. The report further suggested that while at-risk populations had considerable experience in dealing with climate variability and recurrent disasters, and had generations of context-specific knowledge, increasing disaster and climate change risk was now taking them beyond traditional 'coping' strategies, into uncharted territory, where new knowledge and practice may be needed. It is in this light that the ministry of Agriculture

helped the farmers to improve food security by providing information on the rain patterns. If a flood was anticipated, they advised the farmers to grow their crops on high lands. They also facilitated the building of dams to promote irrigation schemes in drought prone communities. However the Ministry of agriculture and the meteorological department's information was not accurate, sometimes as echoed from some participants of the focus group discussion. The argument is whether the meteorological staffs were skilled or were using outdated equipment. The strategic program for Climate resilience (SPCR) and Community Based Natural Resource Management Forum (CBNRM) organizations sensitized the community on climate change and how to adopt when there was an adverse effect related to climate change. The two international organizations worked with other institutions such as the local Government and the grass root communities. They trained some local government personnel on climate change and adoption as well as natural resource management. Kazungula strategic Community Resilience Program enabled households and communities to diversify their income sources, increase crop yields, managed natural resources sustainably and protected livelihoods against adverse effects or shocks for long-term disaster risk reduction.

The grass root organizations included the health neighborhood, women's chairpersons, Traditional birth attendants, malaria Agents, Community Chairpersons and resettlement focal point persons. The community organizations in Kazungula District were part of the affected population to flood disasters

Grassroots organizations derived their power and reason from the local community and common ordinary people. Grass roots were characterized by organizing community members when they were needed to perform a task before or during a disaster. The community leaders were involved in helping the vulnerable members to relocate when there was a flood disaster in their area. They helped community members to settle in the safe haven.

The Red Cross society in Kazungula District was one of the active stakeholders in DRR process. The office worked with other stakeholders such as the community, the District commissioner's office and the council. According to DREF report (2013), ZRCS enjoyed good working relations with other humanitarian agencies and relevant government departments. ZRCS worked in cooperation with government ministries and departments throughout the implementation of Disaster management and mitigation activities. The finding corresponds to the DREF report (2013), which stated that ZRCS also created awareness among the community organizations. The Red Cross also helped to distribute basic essentials such as blankets, food, and tents during disasters. The institution compiled Disaster related

data and reported to relevant authorities. The Business community, of Kazungula District, focused their program and activities towards the promotion of their product, increasing profit and programs that help DRR become part of their culture. The business respondent asserted that programs that foster a culture of resilience ultimately benefit them in the long run for they continued their business ventures. It was therefore from this perspective, in the best interest of these businesses, to be active in DRR to strongly advocate for risk reduction efforts in their community. The business community could be strong advocates in DRR because of their nature of wanting to remain in business. The success of the business also promoted and demanded DRR and helped the larger community become more resilient to flood disasters in Kazungula District.

This is the reason why the business in Kasaya community participated in DRR activities such as raising the business area so that their shops would not be affected by flood waters. They encouraged other community members to promote DRR activities but relocating. The business also struggled with having trustworthy information and convincing potential users of their motives. Since they were for profit organizations, the business respondent cited some organizations wanting to grab their businesses. In addition to the above; the focus on human influences in organizations was reflected most noticeably by the integration of Abraham Maslow's "hierarchy of human needs" into organization theory. Maslow's theories introduced two important implications into organization theory. The first was that people have different needs and therefore need to be motivated by different incentives to achieve organizational objectives (Pfeffer, 1997). As the theory eluded, specific organizations had their unique needs to address the Disaster Risk Reduction. Some institutions and organizations needed more funding while others required more training for staff on DRR. As urged by Scott & Marcela, 2011, possible strategies for improving local capacity include technical assistance from central government, training programs and participation by academics and civil society organizations (CSOs) to fill the capacity gap. The organizational structure theory also reflects on the organization's characteristics, where the formal and informal organizations had different ways of doing things. The formal organizations depended on rules, guidelines and policies for effective performance. It was in this regard that some organizations in Kazungula District bemoaned lack of guidelines or policies for them to implement Disaster risk reduction activities. As reflected in the organizational theory, informal organizations needed no guidelines to implement DRR, however, because of their need for survival that is reflected

in Maslow' Hierarchy, they defiled orders for any DRR activities in their community. The community depended on the river for their everyday need through fishing and farming.

5.3 Factors that facilitated and constrained Disaster risk reduction process in Kazungula District

5.3.1 Facilitators

Factors that facilitated Disaster Risk Reduction, integration process in Kazungula District included the existence of the Disaster management plan at the District commissioner's office. An interdisciplinary team of personnel most familiar with local hazards, exposure and vulnerability with knowledge of data collection and natural processes was reflected in the disaster management plan. The finding was similar to Lammet (2008) who suggested that the disaster management plan need to incorporate interdisciplinary team members. These are experts from the meteorological service, geological and earth science institutes, academia, and other professional organizations e.g. Planning, engineering, and environmental and architect associations. These persons may already be part of the national disaster management network. The UNSDR (2004) report also suggested that actors of DRR were supposed to be aware of what role to play to mitigate the effects of a disaster. Tee (2004) was of the opinion that one of the factors that facilitated Disaster Risk Reduction was the establishment of joint working groups. The assumption supports the findings in Kazungula District disaster risk reduction management system where some stakeholders such as the local government had DRR programs with other organizations dealing with climate change. This made the Disaster Risk Reduction process easier and meaningful as team members are able to interact and share ideas. This was a fertile ground to learn what the community knew in regards to tradition DRR activities. According to Lammet (2008), support from the Government was a very important factor in facilitating Disaster Risk Reduction activities. The vertical or hierarchical support of elected development of a disaster preparedness plan without the leadership and resources provided by the local government would otherwise be a fruitless endeavor. The assumptions support the finding in Kazungula District, where the District commissioner's office is in direct link with the office of the vice president, as such, the channel of communication can be facilitated at community level.

5.3.2 Constraints

The constraints of the Disaster Risk Reduction process were generated from the nodes during the analysis of data. The nodes that were generated include; funding; lack of skilled manpower; inadequate guidelines and frameworks, and attitude of the affected communities. Almost all the institutions and organization cited inadequate funding as a major constraint for the implementation of disaster risk reduction activities. This is in line with Kallet and Peters (2013) who also found out that financing for emergency preparedness is largely nonexistent. Where it does exist, it is complicated, fragmented and piecemeal, especially the international contribution, with an array of separate institutions, mechanisms and approaches determining which parts of the 'emergency preparedness continuum' are funded, and in what ways. According to UNDSR (2011), inadequate funding hampered effective implementation of Disaster Risk reduction activities. There was therefore needed to decentralize funding to District if DRR program.

Skilled manpower is a backbone for success for any project. Virne and Trumper (2014) were of the opinion that good managers make poor project choices because they were not skilled for the specific job. The assumption supports the findings of Kazungula District where managers qualified in a different area of expertise were expected to be experts in Disaster risk reduction. As one manager from the local government eluded; disaster risk reduction in itself was a challenge and very few understood the concepts. There was a need therefore to recruit skilled manpower for the effectiveness of disaster risk reduction. However Seshi and Mirsherd (2006) had a contrary argument, the communities, local authorities and civil society groups may have multiple resources and capacities to deal with disasters; e.g. Indigenous knowledge, policies, disaster reduction programs, technical institutions, machinery and equipment, and social networks.

According to De et al (2015), Inadequate guidelines and absence of a framework will hamper better understanding of the role and impacts of remittances for both receivers and senders, and also calls for greater collaboration between governments, aid agencies and the private sector. This is in line with the finding in Kazungula District, where actors in disaster risk reduction system didn't understand their specific roles. However; Masson & Langstone (2014) had a different perspective regarding the need of frameworks and guidelines; they argued that policies were not automatically followed through in practice and the best grassroots practices did not necessarily influence policies. More studies were therefore needed to evaluate the influence of policy and guidelines to community based institution and organization practice.

The attitude of the affected communities also challenged the disaster risk reduction process in Kazungula district. The affected communities usually resisted relocation to safe haven. The community didn't believe in climate change. The communities affected comprised of fishermen and farmers, and their livelihood depended on the rivers, Kasaya and Zambezi. This is in line with CDC (2015) study that suggested that unplanned evacuations during a disaster can cause great stress on a community and on the individuals in that community. Some of the stressful factors related to sudden evacuations include disruptions of daily life routines and separation from family, friends, and coworkers. The stress of evacuation, can lead to feelings of isolation in the new location and of being neglected by society and government. According to Kenny & Phibbs (2015), cultural attributes need to be considered when designing disaster risk reduction strategies. It is however not clear if the culture of the affected community is put into consideration when Disaster Risk Reduction strategies are being designed in Kazungula district. For the stakeholders to effectively work with the community, they needed to build rapport with the community and tap from the local knowledge of the community members. This would create mutual respect and trust for effect integration process. The stakeholders needed to conduct community situational analysis, by gathering all relevant data about the community such as physical characteristics, demographic features, economic and social political aspect of the community. Through this process, identification of community priority would be done and interventions would be according to priorities. It was very vital to involve community based organizations in this process to make DRR more effective. Hawasaki et al (2014) argued that local knowledge and practices could play an important role in reducing risks and improving disaster preparedness. The assumption supports the finding in Kazungula district where local knowledge has not been incorporated in disaster risk reduction process. There is need therefore to explore the indigenous knowledge and practices in disaster risk reduction process. This will not only empower the local community, but promote confidence to the affected people. This opinion is supported by UNDSR (2009) that suggested that empowering people at the local level could promote more access to, control of resources and basic social services through concerted action; more meaningful participation in decision making to issues that affects their lives.

Limitation of the study

Limited time for data collection made it difficult to reach certain remote parts of the affected communities where other community organizations were situated. Most participants viewed Disaster Risk Reduction process as a relatively new concept making the simplification of the

discussion a challenge. The funding for the study was limited compromising logistics support to the researcher and the team.

Implication to Public Health

Institutions and organization's integration of Disaster risk reduction process was a very vital intervention to combat Disasters in Kazungula District. The study findings suggested that institutions played a role in Disaster management and mitigation in the affected communities. However, institutions and organizations' integration process of DRR were not fully explored.

Implications to Public Health Education

Disasters world over were the major causes of Public health problems. There was a need to include disaster management in the Public health curriculum so that well trained personnel could spear head DRR programs.

Implications to public health research

So many Public health practitioners had done research on different studies affecting the population. However, there was limited research conducted in Zambia to analyze the institutions and organization's integration of Disaster risk reduction process. Therefore Public Researchers should utilize these findings as a foundation for further research so that institutions and organizations can effectively contribute to Disaster management in the Country

Conclusion and recommendations

Institutions and organizations did not optimally integrate Disaster Management in their daily activities. Kazungula District Disaster Management is yet to develop to mitigate the effects of disasters in the District. Actors in Disaster Management needed support through the development of the framework, trainings, and adequate funding for Disaster Reduction activities. The actors also needed to involve the community in planning, implementation and evaluation of Disaster Management activities, for community's cooperation and effectiveness.

Recommendation for institution and organizations' integration of Disaster risk reduction process

The following recommendations had been made based on the findings of the study;

1. The Government through the Office of the Vice President needs to develop the working framework or guidelines to all institutions in disaster prone areas such as Kazungula District.
2. There is also need for the Government to decentralize DRR funding to districts so that Disaster management and mitigation can be done in a cost effective timely manner.
3. The higher learning, teaching and training institutions include or introduce Disaster Risk reduction courses to enable learners acquire knowledge on how to integrate and manage disasters.
4. The local institutions and organizations to explore how to connect at-risk populations with sources of information about climate change, such as meteorological services, and support the latter to disseminate climate information in user-friendly ways. Consulting older people in at-risk communities about traditional resilience strategies; encourage discussion among communities and with other stakeholders on the potential effectiveness of these in present and future climate scenarios.
5. The local institutions and other organizations need to conduct surveys to evaluate how the community services and client satisfaction. This will help to implement community oriented actions which the community will not resist.

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7.0 APPEDIX

Appendix 1

BUDGET

DESCRIPTION	QUANTITY	UNIT (ZMK)	COST	TOTAL
Stationary				
Reams of paper	5	40		160
Pens	4	2		8
Pencils	4	2		8
Rubbers	4	2		8
Tippex	2	10		20
Recorder	1	300		300
	1	4000		4000
NVIVO Soft Ware	1	4000		4000
Secretarial Services				
Typing				
Research proposal	1x60 pages	600		600
Research Report	1x100 pages	1000		1000
Photocopying services				
Research proposal	4x60 pages	1.5		360
Questionnaires	1x11 pages	1.5		16.50
ERES form	1x20	1.5		30
ERES fees	1	500		500
Research report	4x100	1.5		600
Binding				
Research proposals	4x60 pages	30		120
Research reports	4X100 pages	30		120

Facilities and Administrative costs, Researcher's transport to and from the site.	1	500	500
Research assistants allowance	2	500	1000
• ERES converge			500
? Participant Expenses		1000	1000
? Publication costs such /page charges, services.	1	5000	5000
	10%	1,934	1,934
? contingency			
GRAND TOTAL			17276.50

BUDGET JUSTIFICATION

The budget prepared in supposed to cater for the costs of the project.

STATIONERY

The reams of paper will be used for writing, printing and photocopying the research proposal, questionnaires and reports. Pens and pencils will be used for writing while rubbers and tippex will be used for corrections in the proposal and report. Manila folders will be used for filling of questionnaires. The radio recorder and flip chart will be used during focus group discussions to record data. Nvivo software will be needed for analysis and management qualitative data respectively.

SECRETARIAL SERVICES

Money will be required for typing the proposal, photocopying the report and binding of all copies. Money will also be required for Typing, printing and photocopying of questionnaires

ADIMISTRATIVE AND FACILITIES COSTS

Funds will be required for the researcher and research assistants to travel to and from the research setting (Livingstone to Kazungula).

The consultant's fee will be in consultation with experts, especially during data analysis.

The participant's fee will be required for transport refund to the community leaders who will participate in focus group discussion and there will be a need to provide refreshment during the same.

CONTINGENCY FUND

The contingency money will be required for the unseen costs.

Appendix 2

GANTT CHART

TASK	KEY PERSON	Nov 2013	Dec 2013	Jan 2014	Feb 2014	Mar 2014	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014	Sep 2014	Oct 2014
Literature review	Researcher												
Finalizing Research proposal	Researcher												
Clearance from the department	Research supervisor												
Clearance from post graduate forum	Researcher/research supervisor												
Clearance from ERES	UNZAR EC chairperson												
Pilot study	Researcher												
Data collection and tool amendment	Researcher												
Data	Researcher												

collection	her												
Data analysis	Researcher								↔				
Report writing	Researcher										↔		
Submission of draft report	Researcher/research supervisor												↔
Submission of final report	Researcher												↔
Dissemination of results	Researcher												→

Appendix 3

Interview guide for community based organization personnel. Each respondent will be asked to answer the following questions:

1. Please tell me the title you hold and name of your organization. Tell me more about your job

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.....

2. What education, preparedness or mitigation activities is your organization involved in?

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3. What barriers have emerged when designing or implementing your disaster risk reduction?

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4. What lessons have you learnt from other leading individuals or organizations on disaster risk reduction?

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5. When you think of the possibility of a disaster happening in your community, what concerns you most?

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Appendix 4

Focus group discussion guide:

For community leadership (community chairpersons, neighborhood health community members, community health workers and community and community informal leadership)

Ladies and gentlemen, welcome to this discussion regarding how community based organizations and institutions engage in disaster risk reduction. What we are going to discuss here will be treated with high confidentiality and to promote this, no names will be used.

Unique numbers will be used to address you and please feel free to discuss and ask questions where you need more clarification.

- 1 What kind of job are you involved in this community and how are you involved in disaster risk reduction activities?.....
.....
.....
.....
- 2 What other organizations do you work with in relation to Disaster reduction programs?
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.....
.....
.....
- 3 What groups do you reach in your Disaster reduction programs?
.....
.....
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.....

- 4 What strategies/ tools do you use to communicate with the people you serve,
which one is the most useful when reaching a large number of people?
-
-
-
-
-
-
- 5 Are the People you serve concerned with flood disaster risks?
-
-
-
-
-
- 6 Have you changed anything about the Disaster risk reduction programs or
your overall strategies to try to address barriers?
-
-
-

Appendix 5:

The University of Zambia
School of medicine
Department of Public Health
P O Box 50110
Lusaka.

The District Commissioner
Kazungula District
Kazungula

UFS The Head of Department
 Department of Public Health
 School of Medicine
 P.O. Box 50110
 LUSAKA

Dear Sir/Madam,

RE: PERMISSION TO CONDUCT A RESEARCH STUDY IN KAZUNGULA DISTRICT

I am a Masters of Public Health by Research student in the school of Public Health at the University of Zambia.

As part of the fulfillment of the program to complete the training, I am required to conduct a research study. My topic of study is, "A qualitative study of non-Community participation in disaster risk reduction and emergency preparedness among the people of Sikaunzwe community, Kazungula District, Zambia."

It is in this respect that I am seeking your permission to conduct a research study in the above mentioned community.

Your usual support will be highly appreciated.

Yours Faithfully

Juliana M. Hakaloba

C.c The council Secretary, Kazungula District commissioner

Appendix 6

Information sheet

Study title: Community participation in disaster reduction and emergency preparedness among the people of Sikaunzwe Kazungula District.

Introduction

My name is Juliana Mweemba Hakaloba. I'm a student at the University of Zambia and I'm doing a high degree in Public Health. For me to complete my studies there is need to conduct a study on a topic that affects people's health.

I will ask questions on your role during floods in your community. I will also ask questions about how the floods affect the health of the people in this community. During these interviews; your names will not be written on any paper; and all the papers with answers will be locked.

The study is very important because the government can know how to help you better next time you have a flood. It will help reduce illnesses that occur during floods.

In this study; you will participate without anyone forcing you. If during the study you feel you can no longer participate; you are free leave.

If you want to ask any questions; you are free to contact the following;

Mrs. Julian Mweemba Hakaloba

Highland plot 325, Livingstone

Tel no: 0966705426

Or

ERES Converge IRB office,

33 Joseph Mwilwa Road

Rhodes Park

Lusaka

Email: eresconverge@yahoo.co.uk

Phone no: +260 955 155633/ +260 955 155634

Appendix 7

Information sheet in Lozi

Libizo laka kina Mweemba Hakaloba. Ni mwana sikolo fa University of Zambia mi niituta lituto ze pahami kuamana ni makete asi caba. Kuli nifeze li tuto zaka nilukela ku ituta kaza toho ya taba ya makete mwa Sicaba.

Nika buza lipuzo kuamana ni musebezi wamina mwa sicaba nako ya muunda. Ni kabuza hape lipuzo ka moo muunda ukatalezanga maikuto asicaba nako ya muunda. Ku zamaelela ni lipuzo ze mabizo amina hana kuñolwa fa pampili ifi kamba ifi, mi mapepa alikalabo kaufela aka kwalelwa.

Tuto ye ibutokwa kabakala kuli muso ukona kuziba kamoukona kumituseza nako yemwi hamukona kutahelwa ki muunda. Mi ukona kutusa kufukuza matuku nako ya muunda.

Mwa tuto ye lukakupa swalisano kusina kuhapelezwa. Haiba nji fahala lituto a musakona kukeza, mulukuluhile hahulu kutuhela sha!!!.

Haiba musanani lipuzo mulukuluhile hahulu kubuza baba tatama ;

Mrs. Julian Mweemba Hakaloba

Highland plot 325, Livingstone

Tel no: 0966705426

Or

ERES Converge IRB office,

33 Joseph Mwilwa Road

Rhodes Park

Lusaka

Email: eresconverge@yahoo.co.uk

Phone no: +260 955 155633/ +260 955 155634

Appendix: 8

CONSENT FORM

The study has been explained to me and has agreed to participate in giving out the information, which will help the community to engage more effectively in disaster risk reduction activities.

Please sign below. (You free to use your thumb if you do not know how to write.)

Signature.....

Witness's signature.....

Date.....