ZAMBIA – Sinazongwe district

Vulnerability Capacity Assessment: Sinazongwe District

CRA Toolkit
CASE STUDY

This case study is part of a broader ProVention Consortium initiative aimed at collecting and analyzing community risk assessment cases. For more information on this project, see www.proventionconsortium.org.

Bibliographical reference: Zambia Red Cross Society, "Vulnerability Capacity Assessment: Sinazongwe District, Zambia". Lusaka: Zambia Red Cross Society (ZRCS), 2003.

Click-on reference to the **ReliefWeb country file for Zambia**:
http://www.reliefweb.int/rw/dbc.nsf/doc104?OpenForm&rc=1&cc=zmb .

Note:
A Guidance Note has been developed for this case study. It contains an abstract, analyzes the main findings of the study, provides contextual and strategic notes and highlights the main lessons learned from the case. The guidance note has been developed by Dr. Ben Wisner in close collaboration with the author(s) of the case study and the organization(s) involved.

Zambia Red Cross Society

Vulnerability Capacity Assessment

Sinazongwe District
Zambia

17 November – 7 December 2003

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Chapter 4: Findings of the study

Acronyms

ARC	Aids Related Conditions
BEC	Branch Executive Committee
CBDM	Community Based Disaster Management
DAPP	Development Aid from People to People
DDMT	District Disaster Management Team
DHMB	District Health Management Board
DM	Disaster Management
GTDP	Gweembe Tonga Development Programme
KDF	Kaluli Development Foundation
ICRC	International Committee of the Red Cross
IFRC	International Federation of the Red Cross and Red Crescent
NS	National Society
OVC	Other vulnerable children
VCT	Voluntary Counselling and Testing
CHW	Community Health Workers
VCA	Vulnerability and Capacity Assessment
WFP	World Food Programme
WPNS	Well Prepared National Society
WVZ	World Vision Zambia,
ZRCS	Zambia Red Cross Society

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Foreword

Disasters in Zambia are becoming common and complex. Consequently, there is a sharp swell in the proportion and degree of vulnerability of the country's population.

Therefore, there is a growing need to get to the root-cause of vulnerability with special focus on elements of risk and long term factors which make people more prone to hazards.

Zambia Red Cross Society (ZRCS), in complementing Government effort, intends to work with vulnerable communities in tailor-designing community focused programmes through employing participatory approaches. ZRCS aims at making the vulnerable people subjects and not objects of its interventions.

I am delighted to record that our National Society has embarked on the Vulnerability and Capacity Assessment (VCA) process starting with Sinazongwe District. VCA focuses on the means by which people cope and provides a firm basis on which to build appropriate and cost-effective interventions. It is hoped that VCA will be employed in all our planning, programming and implementation.

I wish to thank the following individuals and institutions for their support and encouragement:

His Royal Highness Senior Chief Mweemba
His Royal Highness Chief Sinazongwe
The District Administrator, Sinazongwe District
The General Manager, Maamba Collieries
The Director of Health, Sinazongwe
The District Disaster Management Team
The District Agricultural Co-ordinator
The Council and Management of Sinazongwe District
The Project Manager, Kaluli Development Foundation, WV Zambia
The Sinazongwe Branch Executive Committee and volunteers
The Catholic Church, Maamba Parish
The IFRC Regional Delegation and
The IFRC Country Delegation

I would also like to express my appreciation for the willing participation of the people of Sinazongwe. Twalumba. I would have been happier if I could mention all those that contributed in one way or the other but, as you may agree, I am constrained by space.

Sam William Phiri
Secretary General
Zambia Red Cross Society

EXECUTIVE SUMMARY

The purpose of this study was to conduct a pilot Vulnerability Capacity Assessment in one disaster prone district of Sinazongwe in the Southern province. This was to assist in mapping out hazards, vulnerabilities and capacities within the target area to be able to empower communities to design appropriate programmes to mitigating the impacts of disasters.

Research methodologies within a triangulation were used for this study. This included literature review of relevant documents; semi-structured interviews with 12 key informants from local government departments, NGOs and other stakeholders were conducted. Community Focus Groups involving the contribution of 407 people representing rural areas, peri-urban areas and a 'squatter settlement' were facilitated.

PRA techniques such as timelines, seasonal calendars and community mapping enabled the communities to identify and rank their problems, carryout mapping of their respective areas, produce charts indicating seasonal activities and potential hazards. Transect walks were also conducted for verification of information. Also to support the qualitative data from the community, a quantitative Likert Scale questionnaire relating to potential hazards was designed and used in two sites.

The study results identified the main hazards confronting the people of Sinazongwe to be; drought resulting in food insecurity, HIV/AIDS, which is having a devastating socio-economic effect on the community and an increased disease burden. The lack of water due to semi arid conditions is the major cause of food insecurity prompting people to dispose of valuable assets and selling of livestock at under their value in order to obtain food. This coupled with the devastating impact of HIV/AIDS, poverty and diseases has increased the community's vulnerability and exhausted people's coping capacities.

The study also showed that air and water pollution and flash floods are issues of concern in areas around Maamba and landmines in Mweemba ward along the lake Kariba. Another serious hazard in the community is the poor sanitation coverage in the district. Very few latrines could be observed in all the areas visited and communities openly admitted to using the bush. Hence, diarrhoeal diseases are among the top ten diseases of concern.

In terms of health, many of the health problems experienced in the district are linked to water: its quality and quantity available. Malaria is the major health concern for the community and the leading cause for mortality in the district. Other diseases of concern are respiratory tract infections, sexually transmitted infections and diarrhoeas. In relation to the diseases, the community was aware of the causes and measures that could be taken by the communities themselves to reduce the risks. Although the community mentioned all the measures that they could take to reduce risks, there was a general attitude of powerlessness and dependency as they saw this as government responsibility or for donors to do something to help them.

The study also revealed that local communities have capacities, which could be harnessed to mitigate disasters, but despite all the capacities identified in the various communities, very few people sustain themselves through these capacities and resources. It was observed that the communities generally have no perception on how these capacities could be significantly utilised by themselves in mitigating disasters. They are so used to receiving relief assistance that now there is a noticeable dependency on external assistance, which has destroyed community initiatives and is affecting developmental programmes.

For the community to sustain efforts that reduce their vulnerability they need to be able to change any of the limiting beliefs they have about their situation. Concerted efforts between institutions and the community are required to reduce water shortages. Lake Kariba is a major resource that can be fully exploited to change the fortunes of the district by increasing water availability, food production and sustainable fishing.

Socio-economically, the district is reeling under the devastating impact of HIV/AIDS, and women and grand- parents are bearing the brunt of this; looking after the sick and orphaned children with limited resources. Women are doing most of the livelihood work whilst men's beer drinking habit has become a serious social vice.

The survey identified women, children and the elderly as the most vulnerable to the potential disasters and also provided the rationales and indicators of this vulnerability.

The community focus groups and service providers agreed that government and NGOs had a leading responsibility in responding to disasters as well as preparing the community for disasters. What became obvious during the study was that the communities did not see themselves as being able to deal with disasters that affected them themselves and believed that the government and donors should help them. What everyone agreed was that disasters need the concerted effort of all stakeholders. There are a lot of opportunities for all stakeholders to work together but this requires a coordinated approach, as there are different approaches by different agencies/donors.

The District Council endeavours to provide appropriate services to the people of the district but it is hampered in its efforts by lack of qualified personnel, money and materials.

The results of this study provide a unique opportunity for stakeholders to work in partnership on programmes that reduce people's vulnerability to disasters. The idea is that the programmes would be developed with a more integrated and participatory approach enabling actions in areas of prevention, mitigation, and community health and community development. Therefore the study results will be shared with all stakeholders with a view of developing a plan of action that will improve the situation of people of Sinazongwe district.

Zambia Country Context

Background:

Zambia is a landlocked country in Southern Africa. It shares borders with Mozambique in Southeast, Malawi in the East, Zimbabwe in the South, Botswana in the South, Namibia in the Southwest, Angola in the West, Congo DRC in the North and Tanzania in the Northeast. It has a population of 9.8 million according to 2000 census covering an area of 72500 km. The country is divided into 9 administrative provinces.

Zambia is one of the poorest countries in the world. Poverty and food insecurity remain widespread especially in the rural areas but due to urban migration this is also increasing in the urban areas. The country is affected by disasters including floods, droughts, epidemics and refugee influxes. The country disaster profile is summarized below in table 1. In terms of refugees, the country is home to an estimated 100,000 refugees who fled the conflict in the DRC, Angola and Rwanda.

Zambia like other countries in Southern Africa has experienced many social problems that include HIV/AIDS, which has been particularly devastating. Because of the HIV/AIDS pandemic, life expectancy has dropped from 54 years to 37 years in 2002. The prevalence rate for the entire country was estimated at 20% in 2002. It is further estimated that 62% of the population has no access to safe water, whilst 25% has no access to health services and 66% with no access to sanitation. Hence, diseases such as cholera are now endemic.

Zambia is reeling under the worst drought in 10 years, which is affecting some 200,000 families across the country. During the 2000/2001 season, the northern part of the country experienced floods while the southern part had a serious drought resulting in crop failure. This was followed by another poor harvest in 2002/2003 resulting in a major food relief effort supported by the international community including the Red Cross. Sinazongwe district in the southern province was severely affected, as it is already a drought prone area.

Table 1. Zambia Disaster Profile

Disaster	Place of occurrence	People affected
Floods	Most districts but usually localized –Eastern, Central, Lusaka, Western and Luapula provinces	Those living in low areas Those living in unplanned peri-urban settlements
Droughts	Most districts in Southern and Western provinces	Subsistence farmers
HIV/AIDS Epidemics/diseases (malaria, cholera)	All parts of the country Rural areas Unplanned peri-urban settlements	Poor communities- low or no income groups
Crop and livestock diseases	All parts of the country	Mostly small scale farmers
Refugee influxes	Northern parts of Zambia	Refugees and people living in border areas
Bush fires	Rural parts of Zambia	Rural communities
Mining disasters	Copperbelt/Mining towns	Miners and surrounding areas

ZAMBIA RED CROSS SOCIETY (ZRCS)

ZRCS was established by an Act of Parliament in 1966. It was recognised by the ICRC in the same year and joined the IFRC in 1996, thereby becoming part of the International Red Cross Movement. Its mission is to improve the situation of the most vulnerable people - those that are at greatest risk from situations that threaten their survival and increase their capacity to live with an acceptable level of social and economic security and human dignity. The Society is governed by statutes, which were last revised in 1999 and are due for a further review in line with the recovery plan. According to the Volunteer Data base report October 2003, the Society has 57 branches and a total of 9241 active volunteers around the country responsible for organizing and running all activities at the branch level. ZRCS employs 77 staff members, 25 at HQ, 30 in refugee operation and 22 in the branches.

From its inception in 1966 up until the mid 90s, the Zambia Red Cross Society was a robust and well- functioning organization characterized by good performance, high visibility and a positive image. During mid 90s, however, the Society's performance declined to a point where stakeholders and partners lost confidence in its ability to effectively deliver humanitarian services to the vulnerable in society. As a consequence, external financial and material support to the Zambia Red Cross was curtailed thus exacerbating decline. In light of the urgent need to restore its original well-functioning state, the Society requested the Federation to intervene. The Federation responded by commissioning two assessment studies in 2001 to determine the nature and extent of the problems facing the Zambia Red Cross. The findings of both studies confirmed that the Society was indeed beleaguered by serious operational problems from a governance and management perspective. It was recommended that the Society formulate a recovery plan to restore it to a well-functioning humanitarian organization capable to perform to the standards of the International Red Cross Movement both in terms of service delivery and application of the fundamental principles.

NS programmes and activities:

Since October 2002, Zambia Red Cross Society is implementing the recovery programme with the overall objective to turn around the Society into an efficient and effective corporate entity once again. It has drawn its programme plans based on the recovery plan and programme activities are focused on the four core areas of:-

- **Integrated Health and care -** which include HIV/AIDS prevention and care, water and sanitation, food security and first aid, which include both commercial and community-based
- **Social Welfare and Youth programme**. - Focuses on street children rehabilitation and integration; youth programmes; peer education, skills training, environmental awareness and protection.
- **Capacity building and strengthening NS -** To broaden and strengthen the resource base of the NS and enable branches to perform effective delivery of services and responding to the needs of the most vulnerable people.
  Information and Dissemination and public relations have been set up to promote the ideals, values and fundamental principles of the Red Cross

- **Disaster preparedness and response**

The main activities of the programme are: training of staff and volunteers in disaster management, conducting vulnerability and capacity assessments, designing disaster reduction program initiatives and provision of relief to disaster affected populations. The NS also renders assistance to approximately 25,000 refugees in Mwange camp with 38 refugees passing through Kaputa transit camp, Chiengi, Nsumbu and Mpulungu reception centres on a daily basis. Tracing services are provided for the refugees in Mwange with support from the ICRC training and workshops on tracing of volunteers and key staff are held regularly in relevant areas.

ZRCS is in the process of strengthening its disaster management capacities to be able to deal appropriately with disasters. In the past, the approach to disaster management has bee reactive rather than proactive to disaster situations and often enough the interventions were ineffective as they mostly focused on providing relief in a haphazard manner. After analyzing its disaster management programme the Society has recognized the need to empower communities to reduce their vulnerabilities through community based programme initiatives. Therefore, ZRCS has planned to conduct Vulnerability Capacity Assessment (VCA) in all the provinces but start with pilot survey in one disaster prone districts of Sinazongwe in the southern province. This is to assist in mapping out hazards, vulnerabilities and capacities within the target areas to be able to design appropriate disaster management programmes.

Chapter 2 **LITERATURE REVIEW**

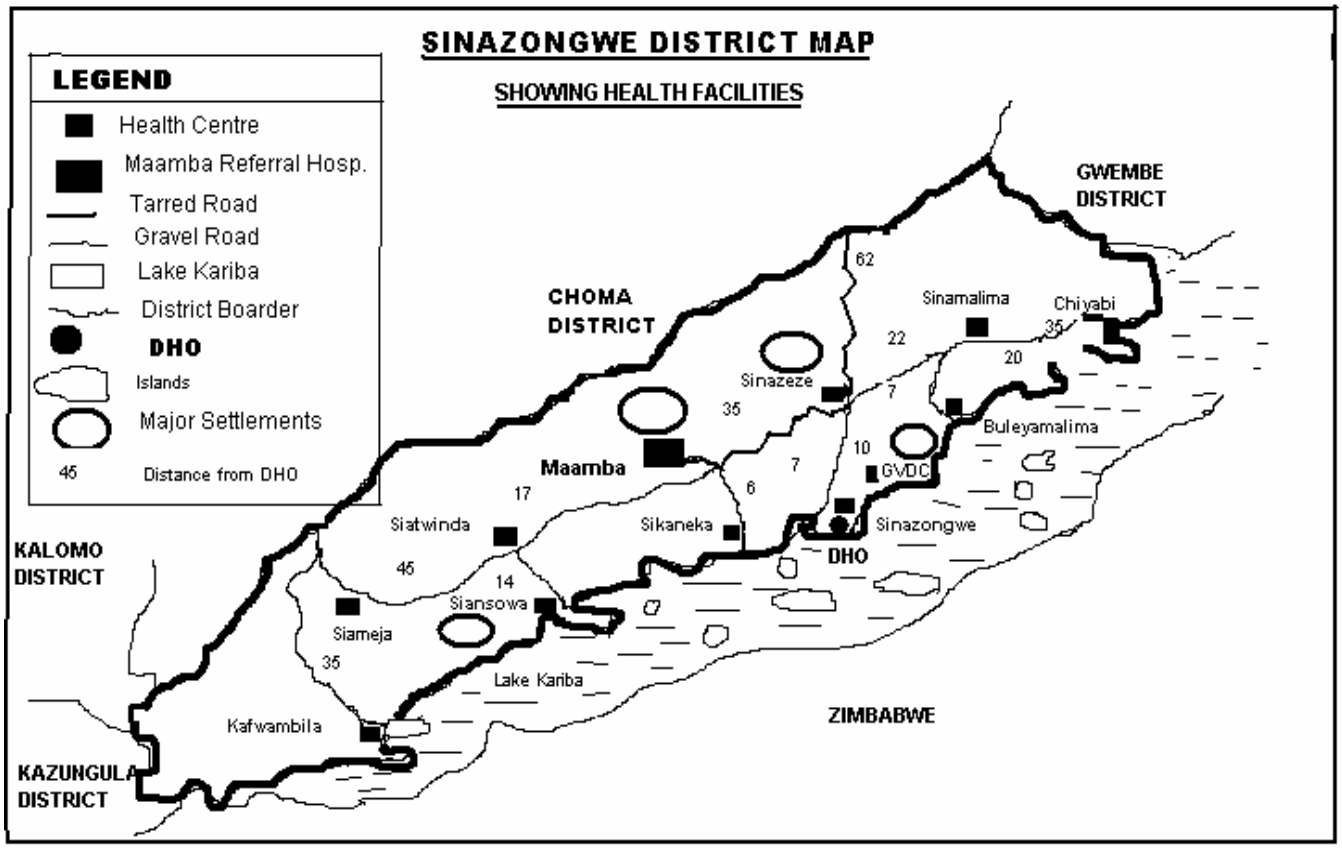
SINAZONGWE DISTRICT

Socio-Economic Background:

Sinazongwe District is in the Southern Province of Zambia, bounded on the northeast by Gwembe District; on the northwest by Choma District; on the Southwest by Kalomo District; and on the east by Zimbabwe – Zambia boarder along the Lake Kariba. The District covers 4,964 sq km. Most of Sinazongwe lies in the Zambezi rift valley with a hilly terrain and encompasses the upper half of the Lake Kariba shore. Although lying within the Agro-ecological Zone 1, much of Sinazongwe experiences semi arid climatic conditions because of the relatively lower altitude than the plateau area. Temperatures are usually high for most part of the year with annual average temperature around 26 degrees Celsius with minimum temperatures in June/July around 15 degrees Celsius. Rainfall pattern follows an uneven distribution and is generally insufficient with 70% probability of drought. Some rivers and all the streams drain from the Zambezi escarpment. Along the side of these rivers and streams are rich flood plains of alluvial soils, which are cultivated by the local people.

Woodlands with dominant Mopane tree species cover the District. The trees do not form thick forests but are scattered from each other. In these open forests, you find a lot of wild fruits such as Mabuyu, Busiika and could be easily exploited for processing of local drinks. Other exploitable forest products include timber, honey and herbs for medicine. Due to low rainfall, grass is very short throughout the District except in pockets of alluvial soils in the flood plains.

Figure 1: **Sinazongwe District Map**



Demography:
Traditionally, Sinazongwe is divided into two Chiefdoms, Sinazongwe and Mweemba. The prominent ethnic group here is the Valley Tonga. **T**he population distribution follows the physical characteristics of the District. In Maamba, the population growth is due to the mining activities that take place there. This is where the coal that supplies the whole country and the region comes from. Sinazeze is at a confluence of three roads, from Sinazongwe, to Maamba, Choma and Malima. Because of that it has developed into a sub-centre through providing services such as accommodation, drinks and meals to travellers.

Zambia has an annual population growth rate of 2.9%, while the annual growth rate for the Southern Province over an inter-census period of 1990 to 2000 was 3.0. The annual population growth rate for the district is below the provincial growth rate and stands at 1.2%. However, the growth rates between sexes vary with the female fraternity growing faster than the male population. The table below summarizes the population characteristics of Sinazongwe district.

Table 2: District Population by sex and percent distribution:

Households	**Males**	**Females**	**Total**	**Males**	**Female**	**Total**
13,576	39,497	40,958	80,455	49.09%	50.91%	100.00%

Sources: CSO, 2000 Census Report November 2003

Table 3 – Sample Areas - Household and population distribution by ward.

Ward	Households	Males	Females	Total	Males %	Females (%)
Mweemba	2,118	5,668	5,882	11,550	49.07	50.93
Maamba	1,826	5,449	5,882	11,345	48.40	51.60
Sinazongwe	1,103	2,889	3,176	6,065	47.63	52.37
Sinazeze						
Mweenda	697	2000	2168	4168	47.98	52.02

Sources: CSO, 2000 Census Report November 2003

Land and Land Use
There are two main forms of land tenure in the District, which are Trust and Traditional Land tenure systems. Trust Land is state land under the control of the President through the Commissioner of Lands, leased to various establishments. The Traditional Land tenure is the dominant system in the District where Chiefs allocate occupancy and use rights. However, since all land is vested in the President, this land can still be converted to state land through consultations with the Chiefs.

Mountains dominate the land so much that land for settlement is only found in isolated pockets. However, most of the habitable land is used for agriculture. Traditionally, men control most of the land. They decide on the use of the land while women have limited say over what to do with the land.

Transport:
There is ample public transport in the district but there is need to grade and improve road structures particularly the un-gazetted roads that have been neglected for many years. Tarred roads lead to many of the service centres and to the coalmine.

Power and Communication:
Power /Electricity is only available in central places such as Sinazeze, Buleya Malima, Buchi, Sinazongwe Boma, Maamba and Mweemba/Kanchindu. It was also reported that there was enough capacity installed that any client can be connected without problems. However, telecommunications are poor and there are neither email facilities nor functional telephones.

Mining:
Sinazongwe boasts of the only coal mine in Zambia. The mine has enough coal reserves, to supply both local and international markets. However, the operating viability is threatened by inadequate production equipment, working capital and has huge company liabilities. On top of that HIV/AIDS is also decimating the workforce. The government would like to sell the mine if a buyer is found.

Agricultural Production:
Agriculture and fisheries are the main livelihood and basis of the economy of the Tonga people in Sinazongwe district. However, due to displacement of the Tonga people by the lake, they now live and cultivate on marginal infertile land on the edges of the valley. Their fields are small, scattered all over the edges of streams and hills, less than a hectare each.
In the last decade, Sinazongwe has experienced numerous changes in the socio-economic and natural parameters that have significantly affected people's lives. The liberalization of the economy in general, agricultural and fishery production, marketing and withdrawal of subsidies on agricultural inputs, withdrawal of the once easily available and cheap agricultural seasonal loans, among others, have had profound effect on agriculture and fisheries in the district. The effects have been more adverse in the smallholder-subsistence farming and fishery systems.

The district is generally a food deficit area because of low productivity. For the 2000/2001 and 2001/2002 seasons, approximately 14,000 hectares and 5,649 hectares of arable land were cultivated in the traditional systems, respectively. This is mostly attributed to low annual rainfall, poor soil fertility, high inputs costs, transport costs, low usage of drought tolerant crop varieties, cattle diseases, inadequate extension services and poor infrastructure.

Livestock
All livestock kept in the district is under the traditional sector with very minimal conventional interventions such as dipping, de-worming and vaccinations. This sector has been greatly marginalized despite the fact that it is the economic backbone of the majority of the population due to constant poor crop yields because of the unfavourable rain pattern.

Table 4. District total Livestock Census (Traditional Sector)

Year	Cattle	Goats
2001	55 250	55 742
2000	59 732	61 065
1999	64 288	56 911

Sources: CSO, 2000 Census Report November 2003

Education:
Government mostly provides education but there are also a number of community schools of which the communities support. There are 40 schools in the district, with a school enrolment of 19004 students. Twenty-five schools are grade 1-7, whilst fourteen are from grade 1-9 and there is one high school for grade 8-12. Table 5 indicates number of students by type of institution.

Table 5: **Number of Students by Type of Institution.**

Type of school	Boys	Girls	Grand Total
Grade 1 - 7	8807	7920	16727
Grade 8 - 9	1002	773	1775
High school	260	242	502
Total	**10069**	**8935**	**19004**

Source: District Situation Analysis Report 2003

However, staffing in most of the schools is inadequate, especially in the remotest schools where only one or two teachers are running some schools. Classroom accommodation has been inadequate in most of the schools and some do not have enough toilets, in some cases they are not even available. Of the 40 schools in the district only 13 are considered to have good infrastructure whilst the rest are in need of rehabilitation. Many of the schools are quite far apart and pupils are forced to walk long distances to go to school.

Health:
Zambian government through the Ministry of Health is the main provider of health services in the country. Sinazongwe District Health Management Board (DHMB) manages the health care services in the District with support from other stakeholders including NGOs**.** The Board operates 12 rural health centres (RHC), one in each ward of the District and one referral Hospital at Maamba.

Comprehensive health services are provided through a well-structured health care system, offering both primary health care and curative care services. Maternal health, family planning, child immunisations and preventative services are offered at all health institutions and through community heath workers (CHW) who include traditional birth attendants (TBA). From reports reviewed and talking to key informants, drug availability at both hospital and RHC is good at 100% for all essential drugs. However, during the survey, community members complained of non-availability of some drugs to cure the 'sick'. The Director of Health Services explained this to mean non-availability of Anti-Retroviral Drugs.

Top ten diseases of concern to the community correlated with top ten diseases recorded at health institutions. It was also confirmed by health professionals that malaria was the number one killer disease in the district.

Table 6. Top Ten Diseases

	Diseases	3rd quarter 2002	3rd quarter 2003	Comment
1	Malaria	10,077	12,822	
2	Respiratory tract infections (RTI) non–pneumonia Pneumonia	 4,059 537	 7620 740	***Community priority diseases concerns***
3	Eye infections	1,986	1608	
4	Diarrhoea	1,658	1,606	
5	Skin infections	749	597	
6	Sexually transmitted infections (STI)	433	406	
7	Measles	327	N/a	
8	TB	322	443	
9	Anaemia	225	195	
10	Bilharzias	200	224	

Source: Sinazongwe District Health Management Board – District 3rd Quarterly Assessment Reports 2002 and 2003

HIV/AIDS

People living with HIV/AIDS, orphans and vulnerable children (OVC) are top priorities in the district. HIV/AIDS prevalence rates can only be estimated, as there is no systematic way of collecting accurate information, as there is no compulsory testing. However, high rates of STIs reported from the health institutions are an indicator that this could be the same with HIV/AIDS. From information available, the main geographical areas of high incidence are spread across the whole district. However, Maamba, Sinazeze and Sinazongwe could be on top according to the number of clients chronically sick and STI statistics at health institutions.

In Sinazongwe there is a District HIV/AIDS/STI/TB Co-ordinating Committee (DACC) that is multi-sectoral and chaired by Chief Sinazongwe. Seven other committees have been formed within the district. DACC has produced a policy document on traditional beliefs, misconceptions and risk behaviours. Practices such as sexual cleansing after the death of a spouse have been outlawed because of their potential to spreading HIV. A fine of ZMK1.5 million has been imposed on anyone being found continuing with this tradition. During the study some community members confessed to the practice continuing secretly.

The community knows that HIV/AIDS is real and is in the community but there is still stigma and discrimination towards people living with HIV/AIDS. Many people are aware about common transmission mode of the HIV virus but behaviour change has not matched this awareness. They appreciate HIV/AIDS activities being undertaken in some areas of the district but these are too few and do not cover the whole district. The current coverage of home based care in the district is scanty as only Maamba Red Cross branch and the Catholic Church have Home Based Care activities in Maamba, Sinazeze and Sinazongwe. There is voluntary counselling and testing (VCT) functioning in Maamba and one is to open soon at Sinazongwe. The activities are co-ordinated by the District VCT Co-ordinator who reports to the National VCT Council. There is also a Youth Alive HIV Project in existence since November 2002 but is inadequate for the needs of the district.

Drought - Food insecurity*

Sinazongwe is a drought prone district. Drought has been responsible for complete crop failure; also this has meant less and less drinking water and grass for livestock, making them more vulnerable to diseases. The situation in the district is that food is only abundant for a short period between 3 to 5 months. The rest of the months people struggle to meet consumption needs, as there is inadequate knowledge in soil and water conservation measures.

The district has suffered three consecutive years of poor rainfall leading to a severe food insecurity situation prompting people to dispose of valuable assets and selling of livestock at under their value in order to obtain food. This coupled with the devastating impact of HIV/AIDS on productivity has increased the community's vulnerability and exhausted people's coping capacities.

Even without statistical data to support the effects of HIV/AIDS on agricultural development, farmers and fishermen have acknowledged the pandemic's presence among themselves. Both socially and economically farmers and fishers have accepted the effects of HIV/AIDS at household level. The pandemic has highly affected the productive age groups between 25 years and 40 years old. Some of the able-bodied age groups are of poor health due to HIV/AIDS and therefore have insufficient energy to do farming. Moreover, this puts an added burden on those taking care of chronically ill at the detriment of farming and fishing activities. The loss is immeasurable both economically and household food security.

Water supply and Sanitation:

Despite having abundant water reserves from Lake Kariba, there are inadequate safe water points throughout the district and no facilities to utilize the water for irrigation development. Due to poor rainfall, constructed dams and weirs dry up for some part of the year.

At household level, in an effort to conserve domestic water, there is a high degree of poor hygiene and sanitation practices among rural communities. Poor sanitation was most pronounced in the Kabanana compound where there were only two water points and a defective sewage system. Many of the areas visited had inadequate pit latrines for good sanitation hence, people use the bush. This was the same in Sinazongwe and Sinazeze townships.

** In this survey drought was seen as the contributory factor to food insecurity in the district. Although it doesn't always follow that drought causes food insecurity.*

Chapter 3. METHODOLOGY

Purpose of the Study
The purpose of this study was to conduct a pilot Vulnerability Capacity Assessment (VCA) in one disaster prone district of Sinazongwe in the Southern province. This was to assist in mapping out hazards, vulnerabilities and capacities within the target area to be able to empower communities to design appropriate programmes to reduce their vulnerabilities. It was also to test the methodology and tools used.

Objective:
The main objective of the study was to identify with the community the vulnerabilities, potential hazards and capacities with a view of designing appropriate programmes that focus on risk reduction.

Preparations for the VCA
ZRCS National Executive Committee (NEC) having given agreement to undertake the VCA study, the Society requested for technical support from the Federation Regional Delegation to facilitate the process. Fifteen appropriate staff and volunteers from the national society were selected and trained to be able to facilitate the VCA process in a culturally and linguistically accepted model. Consultations and sensitisation meetings were held with stakeholders in the pilot study district of Sinazongwe. Consulted people, included local authority officials, community leaders (chiefs) local Red Cross Branch Executive Committee (BEC) and other NGOs working in the District. Discussion focused on the VCA process including agreeing on sample areas, representatives from other stakeholders as well as the time frame for the study.

Task Force
The Secretary General of ZRCS in consultation with Disaster Management sub-committee selected a Task Force made up of local stakeholders, whose Terms of Reference were to oversee the VCA process with reference to the objectives of the study. The Task Force, which was chaired by the President of Maamba Red Cross Branch, comprised of:

- President of Maamba Red Cross Branch Executive Committee (BEC)
- District Director of Health Services
- District Agricultural Coordinator
- District Deputy Council Secretary
- The ZRCS Disaster Management Officer
- Two representatives of the two Traditional Chiefs.

VCA Team
To facilitate the VCA process in data gathering a team of eight members was selected from trained ZRCS personnel and from local stakeholders. The team comprised of: -

- 4 Red Cross Branch Executive Committee members
- 1 NS Disaster Management sub –committee member
- 1 NS Food Security Coordinator
- 1 District Health Services Officer
- 1 District Community Development Officer based within a local NGO.

The Regional Federation Disaster Response Officer was on hand to provide technical support to the teams throughout the process.

Action Plan

An Action Plan was developed detailing all action to be undertaken until completion of the study and a draft report produced. Two days were set aside for dealing with all administrative matters and logistics, writing letters of appointments with key informants and notification of selected communities of dates and times of interviews as well as collecting secondary data.

Two days were devoted to orientation for the Task Force and VCA Teams, which included allocation of tasks and responsibilities and familiarization with tools for the study for both teams and ensuring that everyone was comfortable with the whole process. Data collection took 4 days to cover the 5 selected areas. This was followed by data analysis/interpretation and drafting the report.

Sampling

Sinazongwe District has 12 wards and five sites in five wards were selected for the sample. Both purposive and convenience sampling were used. To select a representative sample, three criteria of geography, demography of the community and special circumstances were used. To fulfil these criteria it was essential to choose a sample from the North, Central, East and South of the district. A sample number of people were selected from the desired geographical areas, which were typical rural setting, peri-urban and an unplanned settlement location (shanty area). However, selections of individual participants within the groups were based on convenience of accessibility. The choice of key informants from service providers was recommended by the taskforce. Sample representatives were selected as follows: -

Rural areas	Mweemba village
	Siameja village
	Sinazongwe village
Peri-urban centre	Sinazeze service centre
'Shanty' location	Maamba-Kabanana Compound

Sources of Information

Qualitative information was obtained from interviews with key informants from service providers in the District. These included key officials from the District Council, Private Sector and NGOs.

Qualitative information was also obtained from focus group discussions with a cross section of community members and information was gathered from a focus group of school children aged 12 – 17 years from a local secondary school also using a quantitative data form.

Research tools comprising of community maps, seasonal calendars and timelines were also used with the Focus Group discussions, which allowed for triangulation. Transit walks were also conducted enabling direct observations.

Secondary data was obtained from literature review of relevant reports, publications and books. This provided background information as well as supportive data to primary sources.

Research Tools

Quantitative

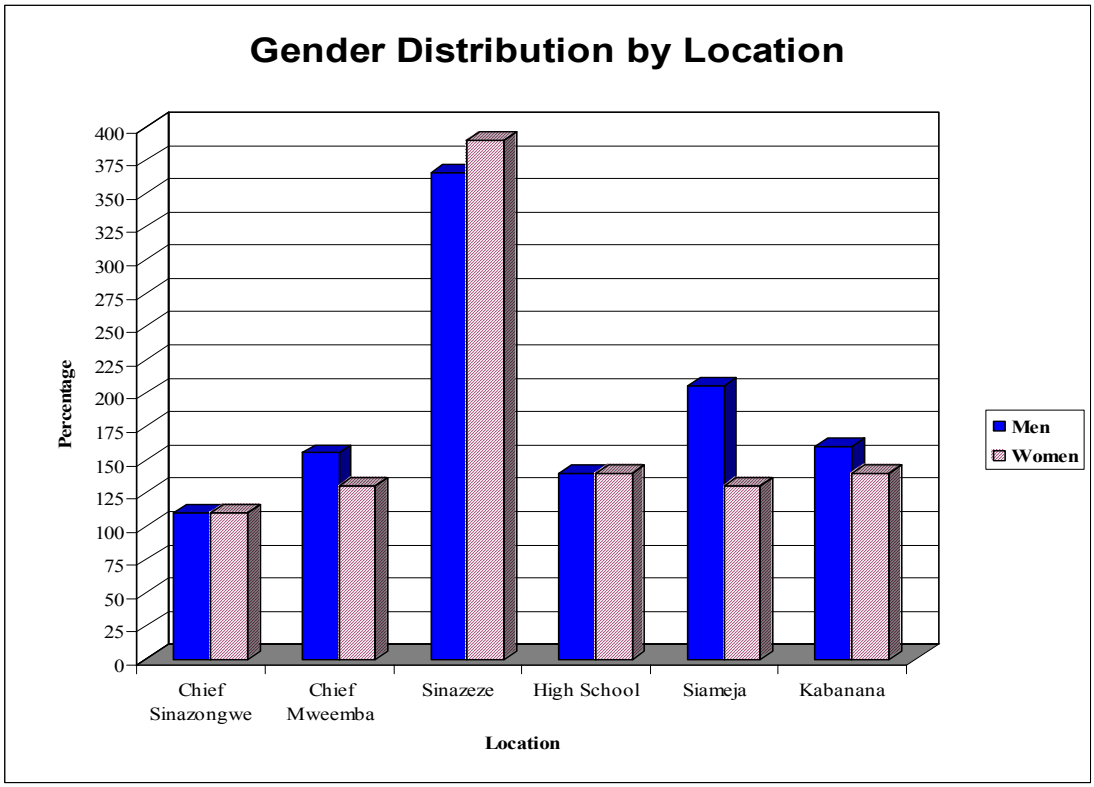
A Likert Scale questionnaire designed to suit local hazards was employed to ascertain options about potential hazards. This questionnaire was used with two focus groups; one in the Kabanana compound and the other with high school children. The questionnaire was simple and could be understood by the respondents without difficulty. Where language was an issue, this was translated into the local language as all team members spoke the local language.

Qualitative:

In preparation for the process of conducting focus groups preliminary meetings were held with community leaders to explain the purpose of the study. They were also requested to mobilize 40 focus group members, in each area from a cross section of the community that included men, women, disabled, church and community leaders, professionals and volunteers. All focus groups were well attended with more participants than required but no one was turned away. Groups had to be sub-divided to make them manageable and they all participated enthusiastically allowing for informed discussions. The participants appreciated being given an opportunity to contribute to their own empowerment.

To facilitate the focus groups discussions, guidelines and topics to be covered were developed and the VCA team was oriented on how to facilitate and manage the focus groups. Focus group discussions began with the community defining and agreeing on common VCA concepts to ensure that all participants and team members had the same understanding so as to enable the discussions to remain focused on the objective of the study. The concepts defined by the community were, disaster, vulnerability, hazard and capacity. Furthermore, to enable women to participate openly, participants were separated into male and female groups and discussions recorded on flip charts.

In addition to the focus group discussions, each group also used different PRA tools such as seasonal calendars, timelines, community maps and transit walks to gain more information within a triangulation methodology. **Figure 2** shows distribution of sample groups by location and gender.



Key Informants/Service Providers:
Taskforce recommended ten key informants from district council officials and NGOs operating in the district. The purpose of interviewing these representatives was to identify their capacities and roles within the disaster management framework. In order to give credibility to the study, two taskforce members were tasked to interview these key informants because of their experience in the VCA process and status within national society. An interview checklist was prepared to facilitate the semi-structured interviews. The list of people interviewed appears in annex 1

Validity

- The team undertaking the study was experienced and trained in the VCA methodology.
- All stages of the research process were developed in a participatory and transparent manner involving key stakeholders
- Sampling was determined by the purpose of the study and took into consideration the issues of geography, community types and special circumstances.
- Views of children were taken into consideration
- Various research tools were used to enable triangulation.
- Feedback sessions with the VCA team were facilitated to highlight challenges, progress and to monitor the process.

Data Analysis and Interpretation

It was agreed from the onset that gathered information would be sorted daily according to the main categories emerging from the focus group guideline headings. Daily flip charts were mounted on the wall of the conference hall according to categories. The taskforce group received feedback and made comments on information gathered in relation to the objectives of the study.

When all the information had been pasted on the wall, the process of analysis began, taking note of similarities and differences and areas for discussion. After much debate and a draft report was produced.

However, the major challenge of the whole process was the time allocated (three days) for the data analysis and drafting the report as this put the team under great stress.

Chapter 4. Findings of the Study

Findings of this study are based on the information obtained from key informants representing service providers, community focus groups and from youth focus groups. The main findings emerging from the study are listed below.

Main Findings:

- The main hazards identified by the whole study group were; drought which caused food insecurity, diseases of poverty, HIV/AIDS, air and water pollution, flash floods and landmines. These varied in severity throughout the district.
- Lack of water due to semi arid conditions is the major cause of food insecurity and diseases of poor hygiene.
- Concerted efforts between institutions and the community are required to reduce water shortages.
- It is possible to irrigate crops throughout the year but a concerted effort is required from all stakeholders. Government established a water pipeline, about 40 km to Maamba mine town for domestic use; therefore it is possible to establish similar schemes for irrigation purpose.
- Malaria is the major health concern for the community and the leading cause for mortality in the district.
- HIV/AIDS is having a devastating socio-economic effect on the community.
- Giving humanitarian food-aid is not just an exercise in meeting people's food needs and preventing malnutrition but also reduces the need among families to engage in coping strategies, such as commercial sex, that puts their health and safety at risk**.**
- Women, children and the elderly were deemed the most vulnerable to the potential disasters
- Local communities have capacities which could be harnessed to mitigate disasters
- Community has depended on external assistance for such a long time and a culture of dependency is now rife and is affecting developmental programmes.
- For the community to sustain efforts that reduce their vulnerability they need to be able to change the limiting beliefs they have about their situation.
- Lake Kariba is a major resource that can be fully exploited to change the fortunes of the district by increasing food production, sustainable fishing business and thriving tourism industry.
- Women do most of the livelihood work whilst men’s beer drinking has become a serious social vice.
- There are a lot of opportunities for all stakeholders to work together for the benefit of the community but this requires a coordinated approach, as there are different approaches by different donors.
- District local authority services are compromised by lack of adequate qualified personnel, money, transport and materials due to

Hazards:

The findings of the study reveal that the people of Sinazongwe district are struggling with food insecurity due to drought; increased disease burden and the devastating impact of HIV/AIDS on the community. What is interesting is that the whole study group – community focus groups,

service providers and the youth groups identified the same hazards as reflected in the secondary data. These issues that affected communities emanated from the interplay between underlying and dynamic determinants together with unsafe conditions to create what constituted disasters for these communities.

The definition of and exposure to hazards varied from community to community. There was a general understanding that hazards cause harm, but the impact either on an individual or the community was a source of heated debate during group discussions. There was varying perception of hazards between different gender and age groups. The women interviewed felt that non-availability of safe and clean water due to drought was a major hazard, while men saw drought as a hazard because it was affecting their animals due to non-availability of water and pastures.
Kabanana community (peri urban) identified HIV/AIDS as the most common hazard followed by water pollution, animal/poultry diseases, epidemics/diseases; famine/food insecurity and soil erosion were last on the scale. Communities in rural areas identified drought or lack of rainfall as the major hazard, followed by HIV/AIDS and epidemics/diseases. This reflects the contrast in their livelihood systems and highlights the most frequent hazards they face based on previous experience, therefore, their vulnerability. The level of awareness of HIV/AIDS was quite high in the areas surveyed.
Air and water pollution and to some extent some respiratory infections were mainly attributed to the pollutants emitting from the coal mine in Maamba. The children interviewed also felt that the mine pollutants were contributing to the drought in the area.

As can be seen in table 1 below most of the hazards identified – HIV/AIDS, diseases and flash floods - by the communities are man made and linked to natural seasonal cycles and mapped in specific areas. Land mines though mentioned mainly affected communities near the border with Zimbabwe in Siameja area. The information on table 1 & 2 indicates what communities in respective groups said during focus group discussions and interviews.

Table 7. **Identified Potential Hazards and Their Locations**

Hazards	Locations
1. Drought – food insecurity	Generally whole district
2. HIV/AIDS	Generally whole district but high rates of STIs in Maamba, Sinazeze, Sinazongwe
3. Diseases • Malaria • Diarrhoeal – cholera and dysentery • Measles • Sexually Transmitted Infections (STI) • TB • Respiratory Tract infections - pneumonias • Malnutrition	Generally whole district but vary in severity between locations Maamba, Sinazeze, Sinazongwe Mweemba, Sinazongwe village Kabanana compound -Maamba Rural areas
4. Air and Water pollution	Maamba community and some parts of Mweemba Sinazongwe village Kabanana compound -Maamba
5. Flash floods	Areas along streams and rivers
6. Landmines	Along the border areas with Zimbabwe as remnants of the war of liberation.

Kabanana community (unplanned settlement) and the school children in Maamba town used the Likert scale questionnaire tool to rank the mostly likely hazards. They identified HIV/AIDS as the most likely disaster to occur followed by water/air pollution, animal/diseases, epidemic/diseases and food insecurity. The order of importance of occurrences and hazards outlined above reflects the perception of hazards as they affect communities more or less throughout the year. They are mostly sudden onset disasters, whose impact is seen there and then. These are hazards that communities have come to accept and live with although they have a devastating impact on their livelihood. Food insecurity is least on the hierarchy because of its seasonal nature and is a slow onset disaster and food is usually available in shops and markets. However, price increases of basic commodities are making food go beyond the reach of many. Table 8 below is the summary sheet of the two groups.

Table 8. **Likert Scale Questionnaire Tool**

No.	Hazards	Cannot Predict	Un-Likely	Likely	More Likely	Most Likely	Sudden/ un Predictable
1.	Floods/Heavy rains	2	13	12	2	4	-
	Epidemics/diseases	-	2	8	11	13	-
3.	Famine/food insecurity	-	2	5	8	12	-
4.	Water Shortage	2	10	6	2	5	-
5.	Political Violence	9	11	14	4	1	
6.	Open Sewage	2	9	8	2	2	2
7.	Earthquakes	14	13	-	-	-	-
8.	Forest Fires	6	10	12	2	5	-
9.	Animal/ poultry disease	2	1	12	6	14	-
10.	Water/Air Pollution	3	1	6	3	19	-
11.	Soil Erosion/ Landslides	1	1	13	5	11	-
12.	Food Poisoning	3	13	9	4	3	-
13.	Work Accidents	3	1	2	4	4	2
14.	HIV/AIDS		1	11	-	28	17

(Summary Sheet)

Vulnerable Groups

Some social groups are more vulnerable to certain hazards than others. This has to do with their level of exposure to hazards, level of resilience and ability to cope. Equally, the same people can be more or less vulnerable at different times of the year. Therefore, vulnerability is dynamic and varies amongst different people and over time.

For the purpose of the study it was vital that all parties had the same understanding of vulnerability. At the beginning of all focus group discussions, participants were requested to define vulnerability and to identify the vulnerable groups in relation to hazards and disasters. During the interviews, communities identified children, women and elderly as the most vulnerable and provided the rationales. When asked on how they could identify the most vulnerable, participants came up with the following indicators: -

- Dependent on others
- Inadequately sheltered
- Not enough food in the household
- Lack of livestock and other assets
- Poor health status
- Inability to sustain themselves
- Poverty
- Limited education/knowledge
- Poor dressing/clothes -rags
- Reduced food/meals
- Disabled
- The terminally ill

Children:
Children do not make decisions for themselves and this makes them dependent upon the adults for their livelihood and welfare. Also because of their age they are exposed to various hazards of which they need protection. Children are likely to play in unsafe environments especially in puddles of dirty water where they can contract such diseases as bilharzia or skin infections. In food insecure households children are the first to develop malnutrition, as they don't get enough nutrients. In relation to orphans it was pleasing to learn that all orphans in the study area were absorbed within the extended family but due to the difficult times the quality of care is dire. The orphan children suffer the most, first they suffer the emotional trauma of loosing their parents then often they face discrimination by their guardians or even suffer emotional, physical and sexual abuse. This has severe psychological effects in their development. In times of disasters some adults exploit children for their own gratification.

Women
From the information gathered it is evident that women and young girls are disproportionately affected by all the identified hazards. Women have low status in this community and lack control over their lives. Through socialization women were taught from early childhood to be obedient and submissive to men particularly men who command power in the family such as a father, uncle, husband, elder brother or guardians. In sexual relations, a woman is expected to please her male partner, even at the expense of her own pleasure and well-being. Dominance of male interests and lack of self-assertiveness on the part of women puts them at risk.

Social cultural beliefs, which subordinate women in society, can make them more vulnerable to HIV infection. Married women are particularly vulnerable, as they cannot negotiate on the use of condoms. This is because tradition demands that they remain obedient to their husbands even if husbands are suspected of having HIV or other STIs. Other cultural practices such as the traditional practice of widow/widower sexual cleansing also facilitate the transmission of HIV.

Women do most of the work in the households- literally women fend for themselves. They tend the fields, look after large families including dependent elders or sick family members, fetch water from afar and find food for the family whilst the men go beer drinking. In all the women focus groups, the women complained of lack of support and the abuse they endure from their husbands. Many of them complained that their men were lazy and there was no difference between one who was married and those not married. The women confessed that they remain married to these men so just to have respect in the community. In these difficult socio-economic conditions some women are compelled to exchange sex for money or gifts or just affection.

Elderly
The elderly people were considered to be vulnerable as they were said to be too frail to help themselves. They are dependent on younger family members to provide for them. Elderly people without family members to support them are severely affected due to their frailty. They are likely to be more susceptible to infections due to a weak immune system. They cannot fend for themselves, which makes them vulnerable and dependent on the goodwill of the community. However, the elderly over 65 years can qualify for social services but access to services is limited due to their mobility, financial and logistical constraints.

Table 9. Vulnerable Groups in Relation to Identified Hazards

HAZARDS	VULNERABLE GROUPS
Drought - (Food Insecurity)	The elderly people (above 65yrs) said to be too frail to help themselves The physically handicapped/disabled as they cannot get access to food Small children as they cant fend for themselves The orphans as they are abused and discriminated against by their guardians The chronically/ terminally ill as they spend most of their time in bed
Diseases - Malaria - Diarrhoeas – Cholera & Others - Respiratory tract infections (**RTI)** Asthma, pneumonia	Community in general but children are more vulnerable The children (under 5yrs), the elderly and the terminally ill, as their immunity status is weak and will catch most opportunistic diseases Those living in overcrowded conditions
HIV/AIDS	Age group between the 15 – 49yrs as they are the most sexually active Children between 0-5yrs as they are infected through mother to child transmission Married women, as they are powerless to negotiate on the use of the condoms/safer sex. Specific groups such as refugees, long distance truckers, migrant workers, cross-border traders, fish traders and uniformed security personnel are more susceptible due to their mobility and separation from spouses.
Air and Water pollution	The miners as they directly inhale the polluted air during work. The elderly and under 5yrs as they are prone to most infections
Flash floods and Landmines	People living near to the river banks Adults or school children that have to walk across these rivers regularly. The gatherers of wild fruits in these extremities People/children herding cattle

Factors Fuelling Disasters:

It was interesting to note that communities interviewed identified factors that they believed to be fuelling disasters but they also had an understanding that there were some natural disasters, which they were powerless to prevent. Drought was mentioned as "an act of God and that it was beyond everybody's control." However, they had awareness that there are certain actions that could be taken to reduce the impact. In cases of droughts and resultant food insecurity, it was explained that some actions such as praying for rain to God through ancestors for divine intervention were done. To avert famine people employed a variety of coping mechanism such as; gathering of wild fruits (busiika) and preserving them for consumption, sell of their livestock and other assets to buy food, reduce number and quantities of meals, do some piecework for money/food or seek assistance from the Government and other communities.

Asked on how to prevent the spread of HIV/AIDS, it was revealed that many things could be done. Some of these are sensitizing people on the proper use of condoms, being faithful to one sexual partner, people knowing their status through VCT and changing their behaviour. The reason behind the continuing high prevalence in HIV/AIDS was attributed to the 'S-factor'-

'Stigma' 'Shame' and 'Silence' because this leads to discrimination, denial and blaming others thereby delaying action. Furthermore, increased levels of HIV are because in most cases the information disseminated is not audience specific. People with different levels of understanding of HIV/AIDS are not being catered for. Another reason is that discussion on sexual matters between parents and their children is taboo. Hence, young people do not have appropriate information. In discussions with school youths about condoms they were adamant that people were getting HIV/AIDS because they use condoms, which were for 'family planning' and did not associate them with safe sex.

Poverty was seen as the "greatest evil" fuelling disasters because people have lost all morals in their quest for money to get them out of poverty. Young girls are going out with older men for economic reasons at the risk of contracting HIV. Women and children engage in risky behaviour or are forced to use their bodies in exchange for money for food. According to the local chief, the 'Social Vice' of beer drinking makes people lose all morals and behave in a manner that put people at risk.

In relation to diseases, the community was aware of the causes and measures that could be taken by the communities themselves to reduce the risks. In case of malaria, action that could be taken included elimination of breeding grounds for mosquitoes, slashing grass, and the utilization of traditional repellents. The District Health Board has employed and trained Malaria Agents to deal with malaria. Their main role is to raise awareness, give health education on causes, prevention, control and treatment of malaria.

In relation to diarrhoeal diseases, communities saw contributory factors to include, lack of sanitary facilities, unsafe drinking water which they get from the streams and poor hygiene practices. People in Kabanana compound reported of people disposing of faecal matter in plastic carrier bags and dumping these anywhere.

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Although some participants were of the view that some diseases were due to witchcraft the majority were clear that with good hygiene practices the risk to diarrhoea could be reduced. Many of them agreed that boiling water before drinking could reduce diarrhoeal diseases, washing of hands after using the toilet, use of chlorine, cleaning of surroundings and health education and promotion.

The community identified measles as a hazard but there has been no major outbreak since 2001, although cases are reported from time to time. The community reported that during a measles outbreak people's movements were restricted, immunizations take place on those at risk especially the under fives, others are urged to seek medical attention; use traditional herbs (such as mululwe), isolation of victims and sensitization of the community. However, some religious sects refuse to have their children immunized against measles prompting the medical services having to use force.

Respiratory Tract Infections in particular asthma was considered to be a hazard in all areas except one. This was of concern in Chief Mweemba's area, Sinazeze, Kabanana in Maamba and Chief Sinazongwe's area. This condition is not seen as a hazard in Siameja. This was attributed to the distance between Maamba and Siameja. Maamba colliery dust and emissions from the

mine are considered to be responsible for respiratory conditions in the surrounding areas. It was difficult to verify if some of these respiratory infections are really asthma or not because no tests or research has been done about this.

Although the community mentioned all the measures that they could take to reduce risks, there was a general attitude of powerlessness and dependency as they saw this as government responsibility or for donors to do something to help them. "If you Red Cross people do not come and help us we are all going to die.," said one lady participant. Table 10 highlights what the communities saw as factors contributing to disasters and what action could be taken by the community with support from other stakeholders to reduce the impact.

Table 10. Factors Fuelling Disasters and How They Can Be Reduced

Hazards	Factors Fuelling Disasters	How They Can Be Reduced
Drought-food insecurity	▪ Geographical nature ▪ Low rainfall pattern ▪ Low water table ▪ Lack of conservation measures in place ▪ Deforestation - charcoal, firewood ▪ Inadequate irrigation schemes ▪ Poor agricultural practices ▪ Poor soils leading to low crop yield and poor animal pastures	▪ Intensive sensitization on environmental conservation measures in schools and community ▪ Water harvesting schemes ▪ Reforestation initiatives through schools and community. ▪ Irrigation schemes development ▪ Promote sustainable agricultural practices.
HIV/AIDS	▪ Lust ▪ High poverty levels. ▪ Low status of women in society ▪ Population movements/interaction (due to trading in animals, precious minerals, drivers transporting coal.) ▪ Strong traditional beliefs like sexual cleansing (kasowe) ▪ Misinformation and peer pressure ▪ Polygamous life ▪ Early marriages ▪ Prostitution ▪ Low use of condoms ▪ Poverty ▪ Ignorance due to high levels of illiteracy ▪ "Sugar Daddies"	▪ More awareness/sensitization Targeted appropriate messages for behavioural change and safe sex ▪ Gender empowerment initiatives with the involvement of men, church and traditional leaders ▪ Formation of anti aids clubs, ▪ Anti-AIDS clubs for youths ▪ Help reduce poverty/dependency through promoting income-generating activities (IGA) for self-reliance. ▪ Promote sustainable agriculture to improve household food security. ▪ Incorporate HIV/AIDS awareness in school curriculum. ▪
Diseases: Malaria Diarrhoeas	▪ Fields near homes are ideal breeding grounds for mosquitoes ▪ The lake and stagnant waters of the streams are breeding areas for mosquitoes. ▪ Unkempt environments ▪ Poor hygiene practices and lack of	▪ Cutting of grass and general cleaning of the surroundings in the community. ▪ Spraying of stagnant water ponds using traditional methods as mosquito repellents - herbs and cow dung. ▪ Use of mosquito nets ▪ Promoting good hygiene practices

Cholera Dysentery	latrines ▪ Limited sources of clean and safe water. ▪ Defective sewer systems in peri/urban community ▪ Ignorance and high illiteracy levels ▪ Contamination of water sources by medical waste e.g. Maamba Kanzinze stream ▪ Inappropriate disposal of raw sewage matters.	▪ Boiling of drinking of water. ▪ Construction or rehabilitation of more water points ▪ Proper disposal of medical waste. ▪ Rehabilitation of sewer system. ▪ Proper disposal of waste matter ▪ Use of the 'cat system' until toilets are available
RTIs TB Pneumonia Asthma	▪ Air pollution from coal mining dust ▪ Over crowding and poor housing structures in urban centres ▪ Unsanitary environments ▪ Cultural beliefs in witchcraft	▪ Control and treatment of mining emissions ▪ Controlled housing planning ▪ More health hygiene education/promotion. ▪ Research into effects of coal dust and emissions on the community
Air and Water pollution	▪ Air pollution or contamination of water sources through medical waste and coal mining dust. ▪ Untreated sewerage materials released into the stream and eventually into the lake e.g. Kanzinze stream	▪ Promoting good hygiene practices. ▪ Control and treatment of mining, medical effluent and emissions. ▪ Treatment of sewer waste.
Flash floods	▪ Poor drainage system due to the hilly topography. ▪ Siltation due to river bank cultivation ▪ Poor bridges and maintenance of road culverts	▪ Appropriate road maintenance ▪ Construction of dams and weirs. ▪ Reforestation
Landmines	▪ Remnants of war ordnance	▪ Mine awareness

Effects of disasters on the Community:

The survey identified effects of these disasters on the communities to be in three main categories of health, economic and social spheres. The lack of access and availability of food due to drought coupled with diseases resulting in poor utilization of food makes Sinazongwe to be among the districts with the highest malnutrition rates in Zambia. The diseases identified by the communities are among the 10 common diseases contributing to high morbidity and mortality rates in the districts. All the diseases mentioned are related to the common hazards identified.

The most notable economic impact highlighted by the communities interviewed is selling of assets like small and big animals and drastic fall in the prices of the same. Traders from major cities are cashing in by offering very uneconomic prices and bartering animals for second-hand clothes and opaque beer (locally called Chibuku). Those without assets such as animals are compelled to rely on unconventional subsistence systems like charcoal burning, selling of firewood in Maamba, migrating to mine areas providing labour for quarrying or household chores these activities are carried out be women thereby adding more burden to them.

Unfortunately, monies realized through such economic activities are surrendered to men who decide how it should be spent but in more times than not, it was spent on beer. A lot of open beer drinking places most run by women are found everywhere. The team observed people drinking as early as 06: 00 hours. This vice is worrying the local leadership including both Chiefs Sinazongwe and Mweemba and the Area District Administrator. There are plans to introduce byelaws to regulate the opening times of these open bars.

Women in Kabanana and Siameja confessed that some of their colleagues are involved in commercial sex trade with traders, truck drivers and miners. They added that even young girls are sent by their parents to engage in prostitution to raise funds. This is contributing to the spread of HIV/AIDS.

Table 11. Effects of Disasters on the Community

Hazards	General Health	Economic	Social
Drought - Food Insecurity	Insufficient water for both people and livestock Drinking unsafe water from the lake or streams leading to diarrhoeal diseases. Psychological depression. Loss of weight/Malnutrition and other related diseases Poor hygiene practices due to lack of water Spreading of diseases Skin diseases become common Increase in morbidity and mortality rates	Household priorities change and directed at obtaining food Livestock diseases and deaths Limited income Poor harvests Marked reduction of livestock in the community as household are forced to sell them off at uneconomic prices Battering assets for food Productive assets like work oxen, ploughs are sold off, and seeds may be eaten Marked reduction in crop production Dams and bore-holes dry up Increased poverty levels Diversion of developmental resources in order to mitigate disasters	Increased crime rates as people go out to look for food Drying up of shallow water wells resulting in walking long distances to get water People are forced to migrate in search of food. Mothers and their daughters may indulge in prostitution to get food Marked drop in school attendance leading to high illiteracy levels Feeding habits change e.g. number of meals are reduced Wild fruits eaten as main meals Polygamy increases Child abuse increases Walking long distances to water points Retards development in affected communities
HIV/AIDS	Stigmatization of the patients, leading to isolation and depression Increases cases of Aids Related Conditions (ARC) in the	Resources diverted to looking after the sick e.g. time, money for drugs etc Families are forced to sell off assets	Children may have to stop school if it's the head of the household is sick or dies Increase of orphans and OVCs,

	communities e.g. T.B., pneumonia General morbidity Premature deaths Psychological impact Over stretching of available medical services and facilities	Increase funeral expenses Loss of productivity at both household and community levels Absence from work Loss of income Loss of labour at household level	Onus of looking after orphans placed on grand-parents Engaging in risky behaviour Breakdown of family bonds Stigmatisation and discrimination Neglect of the vulnerable people Child-headed households
Air and Water pollution	Respiratory tract infections Chronic chest diseases Diarrhoeal diseases	Loss of labour at household level Increased medical costs Vegetation and aquatic life affected	Polluted water sources
Flash floods and Landmines	Contamination of clean water sources by the run-offs increasing diarrhoeal diseases Loss of life and limb Disability	Loss of crops along the rivers banks Loss of capital assets Increased soil erosion thus making soils less productive Loss of income Disablement	Destruction of houses, bridges Relocation of affected people e.g. in Kabanana, leading to Displacement of communities

Local Capacities/Resources:

Despite all the capacities identified in the various communities in the district, very few people sustain themselves through these capacities and resources, as most of the community members seem to be very dependant on relief assistance. It was observed that the communities generally have no perception on how all their capacties could be significantly utilised by themselves in mitigating disasters. They are so used to receiving relief assistance that now there is noticeable dependency on external assistance, which has destroyed community initiatives and is affecting developmental programmes. There is need for stakeholders to encourage community-based initiatives and promote community participation. It is noteworthy that Sinazongwe people were displaced three times and promised good things, which were never fulfilled (construction of Kariba Dam, Nkandambwe coal mine and Buchi Farm). They have depended on external assistance from the time they were displaced. So they feel that government owes them!

Through timelines and discussions the communities identified their own coping mechanisms, which they employed during various disaster situations. They were very much aware of what can be done but need a mindset shift from waiting for aid to looking at sustainable poverty alleviation initiatives through self-reliance. This will need the concerted effects of all stakeholders to motivate and empower them. The study showed awareness on the need to capitalize on both human and material resources available in the community. Table… shows some of the identified local capacities and their uses.

Table 12 Local Capacities/Resources and How They Can Be Used

Boreholes These provide clean water near homes Water for livestock **Livestock** They have livestock (cattle, goats and chickens) These are sold to improve income levels in the homes. They can also be eaten as food in these drought situations **Gardens** Some community members have small vegetable gardens near the riverbeds and the lake (Kariba). This gives them agricultural produce for consumption in their homes to help mitigate the impact of the drought (hunger). They sell their produce for income. This raises money for other household essentials - schools fees, household financial capital. **Skilled Labour In The Community** Examples: Charcoal burners, brick moulder, basket weavers, carpenters, wood carvers, builders, tailors, knitters, bakers, women who knit etc. All these activities help to bring revenue in the homes and community **Digging and selling of semi-precious stones** Most community members in Siameja especially have been able to earn an income for themselves by this activity. This has assisted greatly in alleviating poverty. However, this activity poses its own risks. **The road network (including the feeder roads)** This has opened the district for trading by making it easy to transport commodities/produce from communities to markets also to access other services. However, some of the un-gazetted roads are in need of repair and upgrading especially the low-lying bridges.	**Natural Resources** There are stones, sand, trees, wild fruits and timber used by the communities in various ways to help improve their livelihood. Thus mitigation on the disasters **The Lake.** The drought and semi-arid conditions offer great technological innovations for the future. With food deficits being expected and experienced the greatest resource for the people is the abundant water largely being unnoticed for its potential use. Applications for the Lake Kariba include irrigation farming, fishing and tourism. Having experienced drought it is therefore important to state that irrigation farming should be the cornerstone of "Agriculture Revolution to banish food insecurity. **Drought resistant crops** Some members in the communities grow drought resistant crops (i.e. cassava and sorghum). This gives alternatives to the staple food crop (maize) and has therefore also assisted in the mitigation on the impact of the drought. **Community IGAs** The prominent examples given were; petty trading selling of fritters, brewing and selling of beer, shabeens (illegal drinking outlets) kiosks, rearing chickens to help increase the levels of self-reliance. **Fishing:** This is an important income generating activity (IGA) in the communities. This has helped some in increasing their levels of self-reliance thus helping to reduce vulnerability. However, fish resources are being depleted because of the methods being used. Measures for sustainable fishing need to be put in place
Hospital: There is a district hospital, which serves as a referral centre for the district. This is well stocked with drugs and has qualified personnel. **Rural Health Centres:** These provide primary health care and treatment of the sick. This includes aspects of community awareness, health education, maternal health, and family planning. **Traditional Healers/Medicines:** These have helped in the treatment of some diseases. They also have helped in the preservation of knowledge of traditional herbs and roots. **Churches:** These give spiritual comfort, guidance and encouragement on behavioural change. They also give counselling to people and undertake anti-AIDS awareness campaigns.	**Dams and weirs:** There are twenty-two (22) dams and weirs. Most of these were constructed by KDF while others by private companies contracted by the government. Out of these only six (6) have been stocked with fish. The remaining dams and weirs have not been stocked mostly due to lack of resources These have however, improved the lives of communities by; having access to water for humans and livestock, gardens for agricultural produce. **Community Health Workers (CHW)** **Neighbour-hood Health Workers (NHW) and Traditional Birth Attendants (TBAs*)* –** **Malaria Agents** Help in the dissemination of information and raising awareness on many of the common diseases in the community.

Anti-AIDS Clubs Help to increase levels of awareness of the disease. They also help in the encouragement of peer-groups to help one another cope with the effects of the disease. Youth group interviewed recommended that many more such groups should be formulated.	They give health education and advice on good hygiene practices - Prevention and control of diarrhoeal diseases. Assist expectant mothers to prepare for births
Schools These have helped to increase the literacy levels in the community. The children are taught survival skills, environmental conservation measures and aspects of good hygiene practices, and health education	**The Police Posts** Present in certain areas of the district to preserve law and order and ensure security of the community by curbing crime. **Women's clubs** Facilitate capacity building and empowerment of women through such activities as sewing, baking, vegetable gardens, nutrition education and small livestock production

Roles and Capacities of Government Institutions and Non-Governmental Organizations

In considering roles and capacities of government institutions and non-governmental organizations in disaster management, both the community focus groups and service providers agreed that government and NGOs had a leading responsibility in responding to disasters as well as preparing the community for disasters. It became obvious during the study that the communities did not see themselves as being able to deal with disasters that affected them but believed that the responsibility of disaster management was the privy of government and NGOs.

The district like many other districts has a District Disaster Management Committee (DDMC), which is part of the government disaster management structure and the District Administrator chairs it. Members are drawn government line ministries which include health, education, agriculture, defence and security ministries, community and social welfare, local government and local NGOs involved in disaster management.

This is just a coordination structure therefore has no programme or resources of its own. Currently, the DDMC are not backed up by legislation and therefore do not have a government budgetary allocation. Through the DDMC sub committees, a number of lines ministries by virtue of their respective mandate are involved in disaster management. The Ministry of Health through the office of the District Director of Health is involved in epidemic surveillance and response and information management systems are in place up to community level. A number of community health workers, traditional birth attendant, growth monitors have been trained and neighbourhood watch committees linked to health centres have been established.

Within the Ministry of Community and Social Welfare, district structures transcend down to community level and are providing some relief assistance to identified vulnerable groups. They have trained community-based organizations in identification and selection of vulnerable people. Sinazongwe District Council has included a budget line for disaster response and is currently working with the community in food for asset project to repair damaged feeder roads. The survey team was informed that the Ministry of Education plans to introduce disaster management in the education syllabus or curriculum.

WFP is managing a school children supplementary feeding programme in 10 schools in Sinazongwe because of the high levels of malnutrition and low school attendance as a result of food insecurity.

World Vision Zambia, Kaluli Development Foundation and the Catholic Relief Services are major non-governmental organization operating in Sinazongwe involved in disaster management. Their focus is on sustainable development and food security.

In discussion with service providers some of them believe the current food relief operation could have been better served if some of the money used for the operation could have been channelled to developing sustainable irrigation schemes that could have provided better solution to ensuring food security for the community instead of perpetuating the dependency syndrome.

From the discussion held with stakeholders it became clear that there are a lot of gaps in service delivery and more concerted and coordinated efforts by players is required to mitigate against disasters. The biggest challenge mentioned was changing the mindset of people of Sinazongwe to recognize the capacities they have and to utilise the potential of Lake Kariba to change their fortunes. Government capacities are constrained by lack of funds and human resource and none allocation of funds for disaster management.

Table 14. Capacities of Local Government Departments

Sinazongwe District Council	**Ministry of Agriculture and Cooperatives**
The council has a role in providing social services to the community. The following services are provided by the council: - • Grading of feeder roads • Rehabilitation and construction of schools and clinics • Inspection of business premises and other institutions • Information, education and communication on health matters including HIV/AIDS • Meat inspection • Burial of destitute • Advises on occupational health standards • Rehabilitation and construction of markets and bus stops • Provision of plots • Garbage collection in townships However, the council has limitations in implementing these activities due to lack of resources. Funding is inadequate hence there is no road maintenance system in place, inadequate; machinery, safe water points, transport for service delivery, personnel and accommodation for staff. The Council is aware of its role and responsibility in disaster management. There is a District Disaster Management Committee (DDMC) in place chaired by the District Administrator. The committee is comprised	Agriculture in the form of subsistence farming is the mainstay of the district. This department is of vital importance to the district in light of the chronic food insecurity in the district. It plays a pivotal role in coordinating all the agricultural activities by improving farming skills through agriculture extension workers and advising on livestock diseases. Introducing alternative drought resistant crops like cassava. The department is however hampered in its efforts through lack of adequate resources-personnel, equipment and finance. Having experienced drought it has been recognized that irrigation farming should be the cornerstone of agriculture sector in the district. The government is committed to developing the agriculture sector and is seeking involvement of other stakeholders to fully exploit the lake with sustainable approaches. Hence, a "Water Development Project (WADEP)" for Sinazongwe is to be designed and funds sourced. The water project should tackle the main economic sectors of irrigation farming, fisheries and tourism. **Ministry of Education** Provides free education from grade 1 to 7. The district has 40 schools to empower the community by reducing illiteracy levels and building capacities. The education system plays an important role in the

of all key sector heads and has representatives from the NGOs in the area. It also has good working relationships with other stakeholders and collaborates with them in many activities. **Ministry of Health** – DHMB Provision of primary and curative health services through a well structured system of rural heath centres and a district hospital. Within the community the Community Health Workers, Neighbour-Hood Health Workers, and Traditional Birth Attendants and Malaria agents support the system. The community was happy with level of service provided and only complained about the non-availability of Anti Retroviral Drugs. The health department works in collaboration with other Agencies e.g. Red Cross which provides the HIV/AIDS Home based care programme in three areas in the district and UNICEF which is improving health status of undernourished children by providing supplementary feeding schemes. The department is clear about its role in disaster management and it has structures and programmes to mitigate the impact of disease epidemics and other emergencies. However, the department has challenges in terms of; inadequate transport for service delivery functions monitoring, and inadequate qualified staff. Qualified personnel are reluctant to work in some of the remote areas because of challenging working conditions.	area of disaster management by equipping children with survival skills, knowledge about environmental protection and health issues. On the issue of HIV/AIDS the Ministry is working closely with other partners in raising awareness about the pandemic. Schools are promoting Anti-AIDS clubs using the peer education approach. These address issues that affect the youths. However, there is need to overcome some of the constraints of inadequate teachers and poor infrastructure to be able to provide quality education in the district **Department of Water And Sanitation and Health Education.** Promotion of hygiene practices through latrine construction, sinking of boreholes to provide safe drinking water, Selling subsidized chlorine for water purification Maintaining of boreholes through training of pump minders Assists in the prevention of malaria through provision of subsidized mosquito nets. Provides dust/garbage bins in strategic places **Department of Social Welfare and Development.** The department's role is to provide public welfare assistance support (safety nets) for the most vulnerable members of society. It has structure up to the grassroots level but its limitations are poor funding. It is however, supported by a host of other NGOs who compliments its efforts through community programmes.

Capacities of the Red Cross and other Non-Governmental Organization

Zambia Red Cross Society - Sinazongwe District Branch

Programmes:

The Society is implementing its programmes through its district branch, which is well established to complement government efforts. The branch has well-motivated, active volunteers and members who undertake programme activities. The volunteers are involved in various programmes activities such as, youth mobilization and training of communities in disaster awareness, HBC, food distributions, water and sanitation - health education and hygiene promotion as well as dissemination of Red Cross principles.

The organization has an integrated approach in addressing disaster management. It is implementing an integrated HIV/AIDS programme in the district, which incorporates Home Based Care projects, water and sanitation project and food security project. The Home Based Care activities include assisting families in caring for the terminally ill and provide nutritious food and hygiene products to the HIV/AIDS infected and affected households. The Water and Sanitation project ensures that these households in the district have access to adequate clean, and

safe domestic water through borehole rehabilitation and provision of sanitary latrines. A total of 131 boreholes have been rehabilitated and … pit latrines constructed.

In addressing sustainable food security, the organization also provides drought resistance and early maturing crops/seeds in the district. The programme has been able to assist and improve the lives of 6000 people in Maamba, Sinazeze, Sinazongwe and Makonkoto catchments areas. In collaborating with other agencies i.e. United Nations International Children Emergency Fund, the organization also provided free mosquito nets to the terminally ill, pregnant women, the elderly and under five children.

Branch Capacity:
The branch volunteers and members are equipped with relevant skills through training to be able to undertake the programme activities. The Branch Executive Committee members are professional officers with much knowledge to be able to empower the branch members. The branch has all the markings of a well functioning branch and has the capacity to scale up the activities of the programmes in the district. The Red Cross is well respected in the district and is close to the community and it has a good working relationship with other stakeholders in the district.

Limitations of the branch are lack of financial and material resources, which includes not having own office to operate from. The HBC programme is operating from an office at the District Hospital with complements of the Hospital Board.
There are a host of other NGOs who complement Government effort in humanitarian assistance and community development work. Table 15 highlights some of the activities being undertaken by other development partners

Other Development partners

Organisation	Activities	Area
World Vision Zambia	In addressing drought, the organization is implementing mitigatory measures such as promoting and providing of drought resistant seeds and early maturing varieties. Providing hand pumps for irrigation purposes. Promotion of micro-irrigation systems and Conservation tillage- agro forestry In response to food insecurity, the organization provides relief food as such maize and beans. Provides mosquito nets to terminally ill and vulnerable under-five children and orphans. Provides education needs to orphans.	Mweezya, Kanchindu, Mwananjoke, Sinazeze and Malima Makonkoto
Development Aid from People To People (DAPP)	Provides relief food to under privileged orphans and the elderly. Provision of educational needs to orphans. HIV/AIDS - prevention, care and support Promotion of conservation farming. Construction of pit-latrines.	Mweezya, Sinazeze and Kanchindu
Salvation Army	Provides agriculture inputs and food relief to the	

	community e.g. Sorghum, Maize Seed and Maize	
Women For Change	Support widows and assist training of farmer associations/groups Provision of Agriculture inputs The organization provides agricultural loans e.g. drought resistant seeds and early maturing varieties	Malima, Buleya, Malima Mwananjoke
Kaluli Development Fund (FDF)	Promoting sustainable agriculture through soil conservation and seed multiplication. Agriculture Loans provision to the community e.g. Fertilizer and seed Construction of dams and weirs.	Muziyo Chiyabi Kanchindu.
Gweembe Tonga Development Programme (GTDP)	Provides agricultural loans - drought resistant and early maturing varieties seeds	
World Food Programme **(WFP)**	Provision of relief food to the most vulnerable. Supplementary feeding in 10 schools was introduced in January, 2003 This has improved access to food in the households in that the food intended for children is reserved for other household members. The health status of the children has improved and children are encouraged to go to school.	
Catholic Relief Services	Provision of relief food to under privileged orphans and the elderly. Provision of educational needs to orphans. HIV/AIDS - prevention, care and support	

Chapter 5 RECOMMENDATIONS:

The under mentioned recommendations emerging from the study are based on the expressed ideas from all focus group discussions and the opinions of service providers interviewed. The recommendations are made for the consideration of all stakeholders – community, service providers.

Drought - Food Security

- Steps should be taken towards a more systematic support to drought mitigation, which considers the needs of people and livestock.
- Address water shortage by fully utilizing the water resource potential of Lake Kariba. All stakeholders should be involved in the Water Development Project (WADEP**)** to be able to develop irrigation farming, livestock water points, sustainable fishing and tourism.
- Cost effective ways of ensuring sustainable water availability should be designed such as introduction of sustainable irrigation schemes such as water harvesting, local gravity flow irrigation projects with the collaboration of the Ministry of Agriculture.
- Rehabilitation of existing dams and weirs to ensure constant availability of water for farming and livestock.
- Greater promotion of agricultural diversity and growing of drought resistant crops and increase crop management by involving the Ministry of Agriculture Extension workers.
- Provide training on food utilization and preservation in order to secure continuous food supply all year round.
- Coordinated efforts by all stakeholders to have a positive impact on the community and avoid duplication or spreading efforts thinly.

HIV/AIDS

- More HIV/AIDS awareness through targeted messages for behavioural change
- In light of increasing infection prevalence rates there should be increased focus on prevention activities especially through the youth programmes.
- Promotion of proper and consistent use of condoms.
- Promotion VCT and change of behaviour
- Advocate to incorporate HIV/AIDS awareness into school curriculum
- Social stigma to the disease is making prevention efforts futile hence promotion of anti-stigma campaigns should be intensified.
- Scale up activities for care and support for PLWA and OVC
- Support gender empowerment with the participation of men, church and traditional leaders so as to reduce vulnerability.
- Work with traditional leaders to change people's cultural beliefs/practices.
- Empower women by supporting women clubs and income generation activities.

Diseases:

- Promote sanitation, health and hygiene practices through health education/promotion by
- Encourage and support construction and use of pit latrines.
- Intensify malaria control efforts by involving all stakeholders, particularly through local community participation.

- Increase sensitization for communities to take more responsibility for their health
- Conduct research into effects of coal dust and emissions on the community surrounding Maamba area

Community Empowerment:

- For the community to sustain efforts that reduce their vulnerability they need to be able change any of the limiting beliefs they may have about their situation. Organizations should provide support that enables the communities to develop and improve in their own capacity thus change mindset on dependency.
- There is a need for developmental agencies working with communities to develop long term projects owned by the people themselves and initiatives should focus on aspects of instilling self-reliance and sustainability.
- There is need to develop community-based strategies that will provide women with integrated services in health, food, agriculture and income generating initiatives.
- Start to mainstream gender issues in all developmental activities in order to consolidate gender responsive efforts in all areas including gender-based violence.
- Mitigation programmes provided by NGOs need to be well coordinated to avoid concentration of services in one area or conflicting programme approaches.
- Strengthening capacity of the DDMC is important for well-coordinated disaster management initiatives to succeed.
- There is a need for integration of disaster management activities with all other activities provided by Government and NGOs
- Mine awareness campaigns should be undertaken in the relevant areas in the short term and to consider measures of de-mining for long term.
- Recommendations of the VCA study are implemented.

ZRCS Action.

- Scale up integrated HIV/AIDS Home Based Care projects where RC has an advantage because of its large volunteer base and closeness to the community.
- HIV/AIDS and drought are the two major disasters affecting the region therefore; focus should be directed at integrating drought mitigation measures into the HIV/AIDS programme.
- Programmes approach should integrate general public health aspects inclusive of water and sanitation projects and food security measures in line with the 'Not Business As Usual' approach recommended for the Red Cross programming in the region.
- Establish links with relevant partners in implementing programmes where RC has no expertise such agriculture and irrigation.
- Community Based Disaster Management should be facilitated at community level. This involves communities identifying local hazards and identifying mitigation measures they can take in an effort to reduce dependency.
- Volunteer Disaster Action Teams should be trained in disaster management and integrate this into other community activities such as working with malaria agents and CHW.

Lessons learnt:

- Time allocated to the process was too short and this put great pressure on the team
- Preparations should be done well in advance and involve all stakeholders
- Stakeholder involvement from the onset is vital
- Community ownership of the process with the involvement of local leadership is important to get the community support.
- Agencies working in an area should have a common approach otherwise aid would become a divider between communities. E.g. one agency was giving seeds on a loan basis whilst the other agency giving seeds without expecting any payback. This causes conflict within the community and also encourages dependency.

Conclusion:

This study, the first of its kind in the district, was received with enthusiasm from all participants and they are eagerly waiting to receive the study results. The identified hazards are not insurmountable; with the concerted efforts between institutions and the community these can be overcome. With all the identified capacities within the community there is room to mitigate against these disasters. Poverty increases people's vulnerability to hazards and poverty has been deemed the greatest evil in this community, because it is known that the poorest people are also the ones exposed to disasters. The results of this study provide a unique opportunity for stakeholders to work in partnership on programmes that reduce people's vulnerability to disasters. The idea is that the programmes would be developed with a more integrated and participatory approach enabling actions in areas of prevention, mitigation, and community health and community development.

Annex 1: Persons Interview from Local Government Departments and NGOs

No	Name	Institution	Position
1	Mr. Chidongo	World Vision Zambia	Area Programmes Manager
2	Mr.Luhila	Kaluli Development Foundation	Project Director
3	Father Ethics Chibulo	Catholic Relief Services	Priest Maamba Parish
4	Mrs. Margaret Siatwiinda	Zambia Red Cross Society	HBC Coordinator
5	Mr. Isaac Kasalo	Maamba District Hospital	Hospital Director
6	Mr. Robert Mudala	Maamba Colliery	Acting General Manager
7	Mr. Simon Siachiindi	District Council	District Administrator
8	Mr. Aaron Siachinga	District Council	Deputy Council Secretary
9	Mr. Nzoolo	Education Department	Education Officer
10	Mr. Sikabenga	DWASHE	Com.Development Officer
11	Mr. Hamalala	Health Department	Health Officer
12	Senior Chief Mweemba	Mweemba Village	Local Chief
13	Chief Sinazongwe	Sinazongwe	Local Chief

Annex 2: Topics/ checklists for Service Providers

Overview of district/community/ hazards,

Who is affected by these disasters mostly?

How do disasters impact on the community?

How does the community respond to disasters?

How have you been responding to these hazards?

What more could be done to reduce these hazards?

What could be done to reduce their occurrence?

What is your role in disaster management?

What capacities do you have to deal with disasters?

What are your recommendations?

Annex 3: Focus group Participants

Location	Males	Females	Total	Comment
Kabanana Compound	32	28	60	Unplanned Settlement
Sinazeze township	73	78	151	Service center
Siameja	41	26	67	Rural setting
Sinazongwe village	22	22	44	Rural setting
Mweemba - village	31	26	57	Rural setting
Maamba High School	14	14	28	Secondary school
	213	**194**	**407**	

Annex 4: Guidelines for Facilitators working with Focus group

Session timing: 1 – 2 hours

One facilitator runs the session

The reporter writes down the notes on flip chart

Number of participants between 20-25

Sitting arrangement can be flexible

Control inflow of participants

Involve everybody in the discussions in a friendly atmosphere

Neutrality, not to show opinion of what is being discussed

Facilitating the discussion to ensure all guideline points are covered

Focus group attendance record form – numbers and gender

Annex 5: Community Focus Group Interview guideline questions

Definition of terms- disaster, hazards, vulnerability, risk, capacity

Hazards – expected, locations

Who is most vulnerable to these disasters in your opinion?

What factors are aiding/fuelling disasters?

What factors could be eliminated/reduced?

What are the available capacities and resources in the community that can be used for disaster preparedness/ response/ mitigation/rehabilitation?

What action can the community take – before, during and after disasters?

What are the roles and capacities of local institutions in disaster management e.g. council departments and NGOs in the area?

What is the role and capacity of ZRCS in disaster management?

What are your Recommendations?

Annex 6: **Agreed terminologies (VCA terms) to be used in Local languages**

Disaster - Kunyonyokelwa

Risk - Kulisanga

Danger - Nthenda

Capacity -Kulikonzezya

Hazard - Buyumuyumu

Vulnerability - Kutalikonzezya