ZAMBIA
Vulnerability
Assessment Committee

MULTI-SECTORAL RAPID FLOOD IMPACT ASSESSMENT

BY

THE ZAMBIA VULNERABILITY ASSESSMENT COMMITTEE (ZVAC)

FEBRUARY 2008
LUSAKA

TABLE OF CONTENTS

Acknowledgement

The Zambia Vulnerability Assessment Committee (ZVAC) wishes to thank the following for participating in the Rapid Assessment:

- Care International (CARE)
- C-FAARM
- Department of Water Affairs (DWA)
- Disaster Management and Mitigation Unit, Office of the Vice President (DMMU-OVP)
- Farmer Early Warning Systems Network (FEWSNET)
- Food and Agriculture Organization (FAO)
- International Organization for Migration (IOM)
- Lutheran World Federation (LWF)
- Lusaka District Health Management Team (LUDHMT)
- Meteorological Department of Zambia (MET)
- Ministry of Local Government an Housing (MLGH)
- National AIDS Council (NAC)
- The National Food and Nutrition Commission (NFNC)
- United Nations Children's Fund (UNICEF)
- United Nations Fund for Population (UNFPA)
- World Food Programme (WFP)
- Zambia Relief and Development Foundation (ZRDF)

The VAC is grateful for financial and logistical support from the Zambian Government through DMMU, the United Nations agencies (WFP, UNICEF and FAO) and the Lutheran World Federation.

The VAC also wishes to express gratitude to all the district officials for their cooperation during the assessment. Last but not the least, the VAC wishes to thank all participating communities and households, without whom the assessment would not have been successful.

ACRONYMS

CBPP	Contagious Bovine Pleuro Pneumonia
CSO	Central Statistical Office
DDMC	District Disaster Management Committee
DMMU	Disaster Management and Mitigation Unit
FMD	Food and Mouth Disease
FSP	Fertilizer Support Programme
FRA	Food Reserve Agency
LWF	Lutheran World Federation
MACO	Ministry of Agriculture and Cooperatives
MCDSS	Ministry of Community Development and Social Services
MLGH	Ministry of Local Government and Housing
MT	Metric Tonnes
NAC	National AIDS Council
NFNC	National Food and Nutrition Commission
NGO	Non Governmental Organization
PAM	Programme Against Malnutrition
PA	Participatory Approach
WFP	World Food Programme
ZAWA	Zambia Wildlife Authority
ZRDF	Zambia Relief Development Foundation
ZVAC	Zambia Vulnerability Assessment Committee

EXECUTIVE SUMMARY

During the 2007/08 rain season, most districts of the southern province did not only experience early onset of rains but experienced high intensity as well. From the month of November 2007 to January 2008, the pattern of the rainfall increased in coverage to provinces such as Northwestern, Western, Eastern, Central and Northern.

The excessive rainfall resulted in floods in a number of districts in the country. The floods have affected a total number of 274,800 people (45,799.96 households) causing extensive damage to a number of sectors namely; human settlement and shelter, infrastructure, water and sanitation, health and nutrition, education and agriculture and food security. Need therefore arose to carry out rapid assessment in various districts in order to ascertain the scale of the problem and recommend the necessary interventions. Subsequently ZVAC constituted twelve (12) multi-sectoral teams to carry out rapid assessment in thirty two (32) districts (8th February -18th February 2008) in all the nine (9) provinces.

The approaches used were mainly participatory focusing on key informant interviews, community discussions and intelligent observations.

The main findings of the assessment (sector by sector) are reflected in the table below:

SECTOR	**MAJOR FINDINGS**	**KEY RECOMMENDATIONS**	
		Short Term	**Medium/Long term**
Human settlement and shelter	5,851 habitations collapsed 1,693 households displaced	Provision of 580 tents to completely displaced households.	Permanent integration of the displaced people within the communities in the highlands.
Infrastructure	58 Schools damaged Sanitation facilities at the damaged schools have collapsed and/or flooded	RDA to conduct technical assessment on damaged roads, bridges and culverts.	Repair of damaged roads, bridges and culverts.
Water and Sanitation	80% of districts assessed had poor quality of drinking water. 50% of population in	Provision of chlorine to the affected communities. Disinfection of wells,	MLGH and DWA to scale up sinking of boreholes. MLGH and MOH to conduct public awareness and

	districts assessed had access to safe drinking water. 70% of the people in visited have no access to sanitary facilities.	boreholes and pit latrines.	sensitisation programmes on the construction of durable and adequate pit latrines.
Health and Nutrition	There has been an increase in incidences of major diseases such as malaria, diarrhoea (non blood) and acute respiratory infections. There has been a reduction in supplies of medical services due to damaged roads/bridges. There has been a reduction in the number of children attending growth monitoring programs in the first quarter of 2008 as compared to the first quarter of 2007.	Strengthening of growth monitoring of under five 5 children at community level in view of reduced household security.	
Education	As a result of the damaged schools the learning process of 9,030 pupils has been disrupted.	Alternative learning space for 9,030 pupils from the damaged schools. Provision of safe drinking water and adequate sanitary facilities.	MOE to embark on infrastructure assessment on the damaged schools to facilitate immediate repair and rehabilitation works.
Agriculture and Food Security	The expected loss to the main staple crop will range from 20% to 60%.	Provision of food to a total of 274,800 affected people (45,799.96 households) i.e. 7,422 Displaced and 267,378 non-Displaced for a period of 3 months. Provision of inputs for off season production where winter cropping is practiced. Livestock vaccines.	MACO to undertake capacity building programmes in water harvesting. Timely provision of adequate subsidized inputs for the main agricultural season.

It is important to state that while all the sectors above have been severely affected in one way or the other the damage to crops and infrastructure has been extensive.

CONCLUSIONS

Given the findings above there is urgent need for the government of the republic of Zambia and cooperating partners to as a matter of urgency mobilize the necessary resources to implement the recommended intervention in order to mitigate the impact that the floods have caused on the various sectors.

1.0 INTRODUCTION

1.1 Background to the Assessment

The 2007/08 rainy season started on a good note with the southern half of the country experiencing an early onset while the extreme northern parts had a late onset. From the month of November 2007 to January 2008, the rainfall activity increased substantially in the southern half of the country resulting in widespread heavy rains.

The desktop analysis of the dekadal rainfall for the period November 2007 to January 2008 revealed that this year's rainfall performance has proved to be in excess of last year's (2006/07 season) with most southern half of the country (Western, Eastern and Southern provinces) experiencing severe flash floods in low lying areas (Luangwa and Zambezi Rift Valleys) and water logging in the central, southern and western plateaus. This has resulted into damage of infrastructure such as bridges, culverts, habitations, school buildings and health centres. Major crops such as maize, cotton, tobacco and groundnuts have not been spared as most of them have turned yellow due to extensive leaching. It is evident that in most of the districts where infrastructure damage has been prominent, easy access to basic services such as health, schools and markets has been hampered.

In view of the varying impact of floods/water logging on different sectors, the Zambia Vulnerability Assessment Committee (ZVAC) undertook a rapid flood assessment in thirty two (32) districts, that is, Chavuma, Zambezi, Monze, Mazabuka, Namwala, Itezhi-tezhi, Lukulu, Gwembe, Siavonga, Sinazongwe, Mkushi, Kafue, Kazungula, Mumbwa, Lundazi, Sesheke, Kabwe, Mambwe, Chibombo, Chinsali, Milenge, Nyimba, Chongwe, Petauke, Chadiza, Katete, Kabompo, Mufumbwe and Luangwa and the urban districts of Lusaka, Kitwe and Ndola that reported adverse impact of floods on different sectors.

The assessment aimed at determining the extent and effects of the floods/water logging in different sectors.

1.2 Objectives of the Assessment

The objectives of the assessment were;

- To determine the extent and impact of floods and/or water logging on crops and livestock.

- To determine the impact of floods on the main livelihoods of affected communities.
- To determine the extent and impact of floods on Water, Sanitation and Health.
- To determine flood impacts on Education.
- To determine the extent and impact of floods on infrastructure (i.e. roads, bridges, culverts).
- To determine the nature and degree of the emergency needs in the affected areas, if any.

2.0 Assessment Methodology

The assessment employed a participatory approach focusing on Key Informant Interviews, Community Discussions and intelligent observations. Under key informant interviews, the assessment targeted the District Disaster Management Teams at district level and District sector heads. Community interviews targeted selected communities in the worst affected wards of the thirty two (32) districts which were visited. The selection of these communities was purely purposive and was based on the agreed criteria with the DDMCs.

Intelligent observations formed an important element of the assessment as enumerators applied their expertise and experience to assess the situation on the ground.

Determination of the food insecure populations in the affected wards

The percentage of the food insecure persons in the worst affected wards was derived using a percentage weight. The weight was an average of the percentage crop loss (*main staple and cash crops only*) relative to the area planted under the crops in question. The percentage weight file took into consideration of the main livelihoods in the affected areas. Selection of needy areas was also based on rainfall intensity over time resulting in water logging and flash floods. The district level information was triangulated with the quantitative community estimates which were derived using proportional pilling.

Determination of cereal requirements for the affected population in food insecure wards

The assessment used the following formula to determine the amount of cereal required by those affected:

CEREAL NEEDS (MT) = STANDARD RATION[2] X # OF MONTHS[3] X # AFFECTED PEOPLE
1,000 Kgs

Source: ZVAC, 2005

Where,
Total cereal requirements in metric\tonnes (MT) refers to total quantity of cereal required in the affected ward

Standard ration = 400grammes per person per day (WHO standard) (full ration)

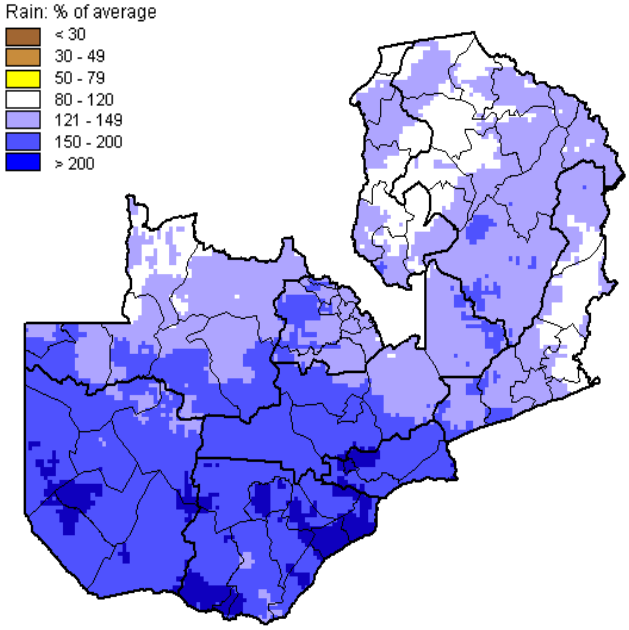
Number of months = duration of the food assistance

3.0 CONTEXT

3.1 Seasonal Progression -Rainfall

Most parts of Zambia experienced early onset of rainfall (early November 2007) especially in the southern half of the country. The northern half of the experienced delayed onset (last ten days of December 2008). Increased rainfall performance both in terms of intensity and distribution was also experienced in the southern half of the country causing localized flash floods in the Zambezi and Luangwa valley areas.

Figure.3.1.1



Source: NOAA/FEWSNET

Furthermore, cumulative rainfall analysis from 1st July 2007 to 10th February 2008 showed that most of Southern, parts of Western, Central and North Western Provinces experienced above normal rainfall (see rainfall analysis images in the figure above).

3.2 Maize Price Situation

Generally, during the 2007/08 marketing season, maize prices have remained relatively low in both urban and rural areas due to the above normal harvest from the 2006/07 production (Figure 3.2.1.).

Similar to the situation that prevailed during the 2006/07 marketing season, maize prices remained relatively low for a longer period, than usual, more especially in high producing areas such as Southern Province.

Furthermore prices in most areas only started to rise in December 2007. In normal years, the prices start rising by September when own stock starts running low at household level.

Therefore, this price pattern for (2007/08 agro marketing season) being exhibited, confirm the good grain supply on the market during the major part of the marketing season. However the maize prices in January 2008 have been significantly higher than the same period in 2007 in most of the districts.

This could be attributed to the fact that those households with grain are hoarding in anticipation of much reduced harvest and therefore the better off households are not paying in kind for casual labour, though a common practice at this time of the year. In addition, most of the maize is in the hands of the Food Reserve Agency who bought 400,000 MT from small scale farmers between June and September 2007.

This implies that more people are relying on the market, increasing the demand for the grain. This has pushed the prices to be higher than what was pertaining in the same period in 2007. In addition, poor access to some of the flood affected areas may also be pushing prices up as supply becomes limited. Among the selected areas, only Mongu (Western Province) has exhibited sudden sharp price increase in the month of December while price increases in other districts have been mostly gradual. However, prices have generally remained below the recent five year average even for Mongu District.

Figure 3.2.1 Nominal Retail Maize Price Trend for Selected Rural Flood Affected Districts

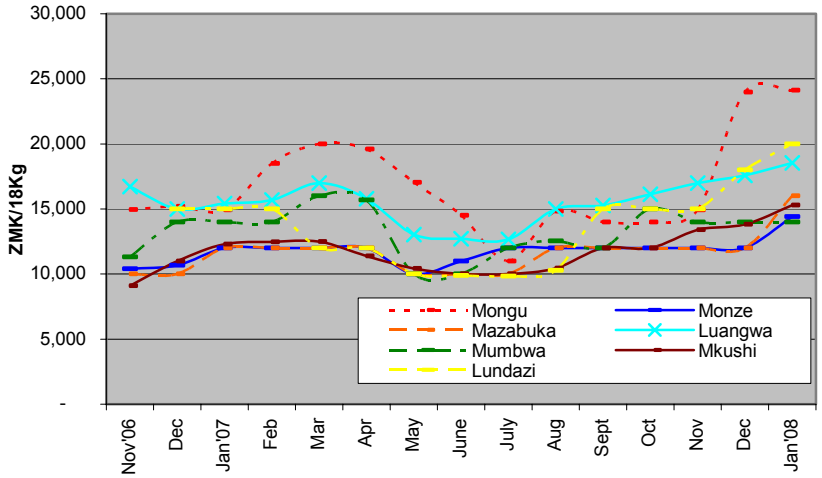
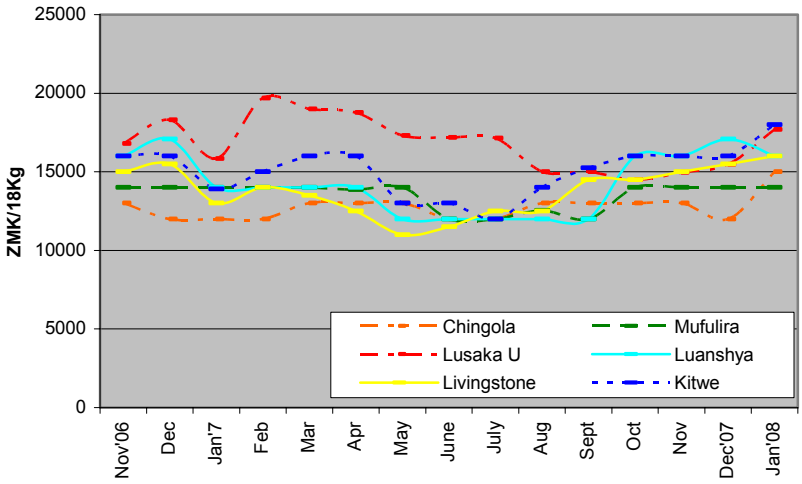


Figure 3.2.2 Nominal Retail Maize Price Trend for Urban Districts



Source FEWSNET/CSO

4.0 FINDINGS AND DISCUSSIONS

4.1 Infrastructure

4.1.1 Public and Private Buildings

The floods have caused extensive damage to infrastructure such as schools, health centers and other public buildings, with the schools being the worst affected. A total of forty four (44) schools, of which forty (40) are basic schools and four (4) are community schools have had some of their classroom blocks damaged and/or collapsed due to heavy rains and subsequent flooding. Sanitation facilities at these schools have also collapsed and/or flooded, rendering the schools un-conducive for learning. Only one health center has been affected namely Itebe Health Centre in Mazabuka which was flooded. Furthermore one staff house at Kamoto Hospital in Mambwe had its roof blown off.

Other damaged infrastructure include, the flooding of lodges in the South Luangwa National Park with affected lodges being Flat Dogs, Marula, Mushroom and Nkhwali (Robbin Pop Safari). Detailed information on the damage caused to public and other buildings by floods is provided in Table 6.1.

4.1.2 Habitations

A total of 5,851 human habitations collapsed (105 of these located in urban areas of Kitwe and Ndola). These were mostly pole and mud houses that were constructed along the river banks and in the flood plains. The houses that collapsed in the urban areas were mostly located in unplanned settlements with poor drainage systems; such as in Kawama, Ipusukilo, Twatasha and Ndeke in Kitwe, Makenzi area (Itawa ward) in Ndola and in a number of settlements in Lusaka.

Majority of them (over 70%) have since been integrated within the community. Only 1,317 of the displaced households are currently homeless, and are staying in camps and/or squatting in classrooms and church buildings on the highlands. These are mostly in Mumbwa (215), Monze (274), Kazungula (166), Namwala (160) and Mazabuka (118).

Recommendations

- There is need to integrate displaced households within communities in the uplands. These efforts must be led by the Government and supplemented by

traditional leaders so that alternative land in the highlands is found for the displaced households.

- There is need to provide temporal shelter (tents) to 409 completely displaced households currently staying in schools, churches and/or other community buildings. Furthermore an additional 171 tents are required in Mazabuka, Namwala and Kazungula due to overcrowding.

- Sensitizations on the need for the communities to build permanent houses with durable materials should continue to be undertaken by the Government and its co-operating partners through the local and/or traditional leadership.

4.1.3 Roads/Bridges/Culverts/Canals

Most of the visited districts are still accessible by road, though with difficulty in some areas such as Namwala, Lukulu, Itezhi-tezhi, Mambwe, Lundazi, Chinsali, Milenge, Chadiza, Chavuma and Zambezi where potholes and gullies have formed on the roads. It is worth noting that Namwala, Lukulu, Chadiza and Mambwe districts are only accessible with a 4 x 4 vehicle.

Most feeder roads from the district centres to the affected wards are flooded and are only partially accessible. Bridges and culverts on the feeder roads within the affected wards have either collapsed or are submerged rendering them unusable. This has left the communities in these places cut off from the rest of the districts and reduced the supplies of goods and services to these areas. The areas that have been cut off include; the west banks of Chavuma, Zambezi and Lukulu which are currently not accessible. This is due to the fact that the pontoon operations on these routes have been suspended as a result of high water levels and fast current.

Other areas that have become inaccessible are Itebe ward in Mazabuka, Moobola in Namwala, Chingombe ward in Mkushi (in the valley), Magoba area in Kafue, Kavalamanja in Luangwa and Munyembe in Zambezi.

In some of the districts such as Mumbwa, Namwala and Lukulu the canals were reported be blocked by silt and weeds.

Recommendation

- The Road Development Agency should conduct a technical assessment of the damaged roads, bridges and culverts of economic importance, and develop an action plan for the repair works to these structures.

- There is need to undertake immediate repair of bridges, culverts and roads that have been adversely affected by floods to enhance accessibility in the affected areas.

- There is need to clear canals in some of the districts such as Mumbwa (1), Namwala (1) and Lukulu (2).

4.2 Water and Sanitation

About 80% of the visited districts reported poor quality of drinking water. This was attributed to poor water sources such as unprotected shallow wells and/or rivers/streams which were highly susceptible to faecal contamination as a result of flooding.

It was also evident that most of the people in the visited districts used unprotected shallow wells and rivers/streams as their main sources of drinking water. Boreholes were ranked third in terms of major sources of drinking water especially in the rural areas. It was only Mkushi, Mambwe, Gwembe, and Luangwa where the main sources of drinking water for majority of the people were boreholes. The unprotected shallow wells and rivers/streams were generally located within the vicinity of most households (less than 500 Km) while the boreholes were located within a radius of 1 km from the homesteads at strategic and central points such as schools and health centres.

Only 50% of the populations in the affected districts have access to safe drinking water. The majority of the population (70%) have no sanitary facilities; while 29% use traditional pit latrines and 1% have access to flush toilets.

The risk of water contamination with faecal matter is high as a result of overflowing and/or collapsed pit latrines. It is also worth noting that at the time of the assessment, no major outbreak of water borne diseases was reported. Risk of water contamination with chemical matter was low in most of the districts, however there

is a likelihood of water contamination with chemical substances due to the increased mining activities in Mumbwa and Mazabuka.

Recommendations

- There is need to provide water treatment chemicals such as chlorine to affected communities in order to prevent outbreaks of water borne diseases. See Needs Analysis Table 5.6 based on the following assumptions:

  250 families for each 50Kg of HTH per month
  20 persons per latrine (emergency situation only)
  2 bottles of chlorine per month for each affected family

- In order to avert long term problems of people accessing unsafe drinking water such as open wells, streams, there is need for the Ministry of Local Government and Housing (Department of Infrastructure and Support Services) to collaborate with the Ministry of Energy and Water Development (Department of Water Affairs) to scale up sinking of boreholes. The areas to be targeted are those with limited number of safe drinking water sources. This should be done within the framework of the National Rural Water Supply and Sanitation Programme (NRWSSP). This should go hand in hand with improved household hygiene practices. There is need to disinfect boreholes, wells and pit latrines after the water recedes.

- Though the reticulation water supply systems were not affected in most districts assessed, it is important to equip the Councils with a water bowser each for delivery of services as the construction of new water points progresses.

- The Ministry of Local Government and Housing in particular the local authorities in collaboration with Ministry of Health need to undertake public awareness and sensitisation programmes on the construction of durable and adequate pit latrines.

4.3 Health and Nutrition

Only one heath center (Itebe in Mazabuka) has been closed due to the damage caused by floods. The remaining hospitals, health centres and rural health posts are

still functional in the districts assessed. Although most health centres are still functional, the supply of medical services to the affected areas has reduced due to damaged roads and bridges. In order to deliver medical supplies to the communities that have been cut off, community based health workers have resorted to using ox-charts which takes them about four (4) days to reach the affected areas.

The supply of medicines at district level is still good as most District Health Management Teams already pre-positioned medical supplies to last for 3 months (January to March 2008).

The common constraint in all the districts assessed is inadequate trained health personnel such as Doctors, Nurses, Environmental Health Technicians, Community Health Workers and Traditional Birth Attendants.

The most common diseases being experienced are Malaria, Diarrhoea (non blood) and acute respiratory infections (ARI – non pneumonia). There were also minimal cases of tuberculosis that have been recorded in some of the districts. Incidences of other diseases such as Measles and skin diseases were reported but the cases were very few.

Information on the health situation collected in the urban areas (Kitwe, Ndola and Lusaka indicates that there was an increase in incidences of the main diseases in January 2008 compared to January 2007. The table below shows health information collected from Kitwe. This is representative of the situation in Lusaka and Ndola as well.

DISEASE	**JANUARY 2007**	**JANUARY 2008**
Malaria	23, 857	29, 068
Acute Respiratory Infection (ARI)	8, 492	12, 341
Tuberculosis (T.B.)	817	1, 060
Diarrhoea (non blood)	6, 263	5, 697
Skin diseases	1, 562	1, 060
Measles	0	0

There were reports of cholera having broken out in some of the areas in Lusaka, Kitwe and Ndola. At the time of the assessment the cholera outbreak had been contained by the district health management teams.

There has been a reduction in the number of children attending growth monitoring programmes during the first quarter of the year as compared to the same period last

year, in Gwembe (8,462 from 9,268), Namwala (2,235 from 2,647), Mazabuka (3,802 from 4,100), Chadiza (19,171 from 23,105) and Petauke (76,843 from 84,497). Only Kabwe and Katete have experienced an increase as follows; 580 to 541 in Kabwe (at Kasavasa Health Centre) and 56,340 to 51,679 in Katete. The reduction in the growth monitoring programmes was attributed to inaccessibility of some of the affected areas.

Recommendation

- The medical supplies in the affected districts are expected to last only till March 2008, therefore there is need to stock up on supplies for a further 3 months (April to June). **See attached Need Analysis Table 5.8** for details and quantities of the medical supplies required.

- In view of the anticipated reduced harvest which will culminate into food insecurity at household level, there is need to intensify child growth monitoring at community level.

- There is need to conduct nutrition assessment as part of the in-depth assessment planned for April / May 2008.

4.4 Education

A total of 58 schools (54 basic schools and 4 community schools) have been closed as a result of damage caused by floods. In most of these cases, the classrooms have been flooded causing structural damage. This was the same with the houses for the teachers which suffered structural damage as a result of floods. Sanitation facilities (pit latrines) have also collapsed and the shallow wells are now flooded making the schools unconducive for learning. This has disrupted the learning process for 9,030 pupils. The district with the highest number of affected schools is Namwala where 13 schools have been closed due to the effects of floods. As a result of this, 10% of school children in the worst affected areas of Namwala have stopped attending classes. Other districts affected by the closures are; Kabwe (where 30% of the children have stopped attending classes). Furthermore 20% of the children in Mkushi and Kafue, 15% in Mumbwa and Gwembe, 10% in Sesheke, 20% in Chibombo, 10% in Milenge, 10% in Chinsali, 30% in Monze, 10% in Itezhi-tezhi, 40% in Mazabuka and 25% in Lukulu have all stopped attending schools due to reduced access to schools and closures. The highest number of children who have stopped attending school as a result of the effects of the floods is in Mazabuka. Some of the children

from the schools that are not accessible have been relocated to schools on the highlands.

Recommendations

- Alternative learning space is required for a total of 9,030 pupils whose lessons have been disrupted due to closure and/or inaccessibility of the schools affected by the floods (**see Education Needs Analysis Table 5.7).** This should go hand in hand with supply of safe drinking water and adequate sanitary facilities.

- The Ministry of Education needs to embark on infrastructure assessment on the damaged schools to facilitate immediate repair works.

4.5 Agriculture, Food Security and Markets

The major livelihood for most households in the affected rural districts is crop production while Livestock production and fishing were other notable livelihoods. The major livelihood in urban areas is formal employment and trading. About 70% of the households in Mumbwa, Lukulu, Zambezi, Kabompo, Mufumbwe and Chavuma practice winter cropping, while the practice is lower in the other districts, with 30% in Kabwe, 20% in Namwala, 20% in Mazabuka, 30% in Siavonga, 15% in Gwembe, 30% in Kazungula, 15% in Kafue, and 15% in Mumbwa.

Floods were found to have caused damage to food (maize, millet, sorghum and cassava) and cash (rice, sweet potatoes and cotton) crops. The major trigger of the damage was severe water logging that has resulted into nutrient leaching. The situation was exacerbated by lack of adequate sunshine hours due to overcast skies, washing away of crops due to flash floods as well as grey leaf spot.

Most crops have turned yellow with some stunted and prematurely tussled consequently reducing crop yields. It is however estimated that the expected loss to the main staple crop (maize) will vary among the affected districts with the highest being expected in the high producing areas such as Lundazi, Chibombo, Katete and Petauke and the least loss being expected in the low producing areas such as Zambezi, Mambwe, Siavonga and Lukulu.

Affected households will run out of own food stock earlier than in a normal year. For the farmers that will harvest something this year, their maize is likely to run out by August in most of the affected districts. See Table 3.5.1: Estimated Crop Losses.

The formal and informal markets are still functional in most of the affected communities, as people continued to engage in the exchange of food commodities for money and through barter system. However the availability of the main food commodities such as maize was found to be very limited in most of the visited areas. In Itezhi-tezhi, Gwembe and Namwala districts, there are still stocks of maize from the FRA that are being held in the districts.

There is an increased risk of livestock diseases especially foot-rot due to the high water levels and prolonged damp conditions in the affected districts. It is also anticipated that there will be an increased parasite burden on livestock this year due to pools of stagnant water. There is also a high risk of foot and mouth disease due to the movement of wild animals which are now grazing together with the cattle in the highlands. Already some districts have reported foot and mouth disease outbreak.

The prices of cattle, goats and chicken have reduced since the floods started due to limited competitive markets. In a normal year, the prices of cattle range from K1,500,000 to K2,000,000, while the prices at the time of the assessment ranged from K1,000,000 to K1,200,000.

Recommendations

- It is recommended that immediate food supplies be provided to 7,902 persons (1,287 households) who are completely displaced and are currently in camps, churches and/or school buildings. A recommended full food basket of about 282 MT of cereals, 10.67 MT of oil and 42.7 MT pulses respectively) be provided for a duration of three (3) months March – May 2008). (See Food Needs -Table 5.3.1).

- There is also need to consider providing relief food (cereal only amounting to 9,626 MT) to the general population of 267,378 people (44,563 households) affected by the crop failure.

- The total cereal requirement for all the district is 9,893 metric tones for a population of 274,800 people (45,800 Households) – both the displaced and non-displaced population. (See Food Needs Table 5.3.3.).

- In order to determine the full extent of the actual food gaps at household level, there is need to undertake an in-depth vulnerability assessment in April / May 2008 by which time most of the households would have harvested. The districts to be targeted are those that have reported high percentages (40%) of crop damage as well as those that have reported high livestock losses. This will help to establish the proportion of the affected population that will require food support and non-food support, due to loss and/or disruption of their livelihoods either through complete crop failure or livestock losses.

- There is need to strengthen MACO's capacity to provide timely information for disaster contingency planning and response.

- There is also need to restore the agricultural production base of affected households through provision of agriculture input support for the main season cropping and broadening the asset base of affected households through provision of small livestock, as a risk reduction strategy.

5.0 ANNEXES
5.1. Assessment Tool

Office of the Vice President Disaster Management & Mitigation Unit DMMU Lusaka	Republic of Zambia Rapid Disaster Impact Assessment VULNERABILITY ASSESSMENT COMMITTEE(VAC) Form Ref: DMMUFORM-01 | Version 2.0	VAC

1. IDENTIFICATION			
A.1 LOCATIONS		A.2 DATE	
A.1.1 PROVINCE		A.3 RESPONDENTS (attach list of respondents)	
A.1.2 DISTRICT		1	4
A.1.3 WARD		2	5
A.1.4 COMMUNITY		3	6
A.4 COMPLETED BY:			

2. EVENT CHARACTERISTICS								
B.1 Type of hazard and/or disaster e.g. floods, fire	B.2 Date of event	B.3 Total Population				B.4 Total Number of wards		
			Male	Female	Children	B.5 Affected ward(s)		
		District				B.6 Affected Households:		
		Ward:				Male Headed		
						Female Headed		
						Child Headed		

3. IMPACTS ON HUMAN LIVES												
C.1 DEATHS				C.2 MISSING				C3 INJURED				C.4 UNACCOMPANIED CHILDREN(below 18yrs)
	Male	Female	Total		Male	Female	Total	Male	Female	Total		TOTAL
C3.1 ADULTS				C2.1 ADULTS								
C3.2 CHILDREN				C2. CHILDREN								
0-5 yrs				0-5 yrs								
6-10 yrs				6 -10 yrs								
11-18 yrs				11 -18 yrs								

C4 Are there any observed child protection issues such as			C5 Are there any observed sexual gender based violence issues such as		
	Yes	No		Yes	No
C4.1 Possible sexual abuse			C5.1 Possible sexual harassment		
C4.2 Physical abuse			C5.2 Possible sexual exploitation		
C4.3 Possible children in conflict with the law			C5.3 Physical abuse		
C4.4 Possible child trafficking			C5.4 Rape		
C4.5 Other (Specify)			C5.5 Other (Specify)		

4.0 INFRASTRUCTURE, HUMAN SETTLEMENT AND SHELTER											
4.1 HUMAN SETTLEMENT AND SHELTER											
D.1 NUMBER OF PEOPLE WITHOUT SHELTER										D.2 WHERE ARE THE DISPLACED	
	MALE ADULTS			MALE	FEMALE ADULTS				FEMALE		
	Disabled	Aged	Other	CHILDREN	Disabled	Aged	Pregnant	Other	CHILDREN	D2.1 CAMP	
D1.1 DISPLACED										D2.2 INTEGRATED	
D1.2 HOMELESS										D2.3 OTHER	
D1.3 TOTAL											
4.2 IMPACTS ON HOUSING, TRANSPORT AND COMMUNICATION											
D.3 HOUSING & PUBLIC BUILDINGS					D.4TELECOMMUNICATIONS						

Type	Roof Missing	Under water	Partially damaged	Completely damaged	Type of Communication facility	Functioning	Partially functioning	Not Functioning	Not Available
D3.1 Habitations					D4.1 Landline telephone				
D3.2 Community Center					D4.2 Radio communications				
D3.3 Schools					D4.3 Cellular telephone				
D3.4 Health Care Centers					D4.4 Radio Stations				
D3.5 Gov Offices					D4.5 Other				
D3.6 Others									

D.5 TRANSPORTATION	Accessible/usable	Partially Accessible/usable	Not Accessible/usable
D5.1 Main Road from/to district center			
D5.2 Railway			
D5.3 Pontoon			
D5.4 Bridge			
D5.5 Culvert			
D5.6 Airports / Airfields			
D5.6 Others (Specify)			
D.6 MARKETS	Accessible/usable	Partially Accessible/usable	Not Accessible/usable
D.6.1 Main markets			
D.6.2 Community Markets			

5. IMPACTS ON WATSAN AND HEALTH

E.1 WATSAN

E.1.A Major source of water for drinking(rank from 1 to 4 in order of importance with 1 being the highest)

Source	Rank
E1.A.1 Borehole	
E1.A.2 Spring	
E1.A.3 Protected well	
E1.A.4 Unprotected well	
E1.A.5 River	
E1.A.6 Piped water	
E1.A.7 Other (Specify)	
Has the drinking water Source changed? (Circle appropriate response)	1. Yes 2. No

E.1.B DRINKING WATER (Use proportional piling)	76-100%	51-75%	26-50%	0-25%
E1.B.1 Population with access to safe drinking water				
E1.B.2 Distance to water points in meters (tick appropriate)	<500	500 – 1000	>1000	

E1.B.3 What is the perception of water quality (Taste, colour, appearance)	Good	Fair	Poor
E1.B.3.1 Borehole			
E1.B.3.2 Spring			
E1.B.3.3 Protected well			
E1.B.3.4 Unprotected well			
E1.B.3.5 River			
E1.B.3.6 Piped water			

E.1.C Methods of excreta disposal	Rank	Comment on the condition
E1.C.1 Pit latrines (San Plat, VIP,		

Traditional)				
E1.C.2 Water borne System (flush toilet)				
E1.C.3 No facility				
E.1.D RISK OF WATER CONTAMINATION	Low	Medium	High	
E1.D.1 Faecal				
E1.D.2 Chemical				

E.2 HEALTH

E.2.A MAJOR DISEASES	January 2007[1]	January 2008[2]	Comments
E2.A.1 Diarrhoea (non blood)			
E2.A.2 Acute Respiratory Infection (ARI – non pneumonia)			
E2.A.3 Malaria			
E2.A.4 Measles			
E2.A.5 Skin diseases			
E2.A.6 Tuberculosis			

E.2.B HEALTH FACILITIES	Functioning	Partially Functioning	Accessible	Not Accessible	On the verge of Closing
E2.B.1 Health Posts (number)					
E2.B.2 Rural Healthcare centres (number)					
E2.B.3 Hospitals (number)					

E.2.C MEDICAL SUPPLIES AND HEALTH PERSONNEL	No Change	Low	None	**How long supplies last**	
E2.C.1 Availability of medical supplies				No. of Months	No. of Days
Drug Kits					
Clean Delivery kits					
PEP Kits					
ARVs					
Condoms					
Contraceptives					
Antiseptics / Disinfectants					
Chlorine					
E2.C.2 Availability of healthcare personnel					
Doctors					
Nurses					
Environmental Health Technician					
Community Health Workers / Distributors					
Traditional Birth Attendants					

6. IMPACTS ON EDUCATION

F.1 SCHOOL INFRASTRUCTURE AND ATTENDANCE

	Functioning			Partially Functioning			Closed		
	Basic Sch	High Sch	Community sch	Basic Sch	High Sch	Community sch	Basic Sch	High Sch	Community sch
F1.1 Classrooms									
F1.2 Staff Houses									
F1.3Toilets									
F1.4 Water Source									
F1.5 Access road									
F1.6 Library									

F.2 CHILDREN OUT OF SCHOOL (%)

F2.1 Non-special need children

Basic		Community school		High school	
Male	Female	Male	Female	Male	Female

F2.2 Children with special needs (Disabled)

Male	Female	Male	Female

[1] Record information of statistics for that disease during the same period in the previous year
[2] record information of statistics for that disease for the current period

F1.7 Staff offices										

F.3 EMEGENCY SCHOOL REQUIREMENTS

	Yes	No
F3.1 Space for learning (alternative learning space)		
F3.2 Learning kits		
F3.3 Water supply		
F3.4 Water treatment kit		
F3.5 Sanitation facilities		
F3.6 Temporal shelter for Teachers		
F3.7 Counselling/Physical education		
F3.8 Awareness programmes for back to school		
F3.9 Security		

School Children Requirements		
List Requirement	Boys	Girls

7. FOOD SECURITY AND AGRICULTURE

G.1 Livelihood (Food and Income Sources)						
Rank order	February 2008			Normal (February/Pre-flood October 2007)		
1						
2						
3						

G.2 Crop, Livestock and Food Losses

G.2.1 Crop losses

G.2.1.1 Staple	**Ha Planted**	**Indicate Estimated % loss**		
G2.1.1.1 Maize				
G2.1.1.2 Millet				
G2.1.1.3 Sorghum				
G2.1.1.4 Cassava				
G2.1.1.5 Sweet Potatoes				
G.2.1.2 Cash Crops	**Ha Planted**	**Indicate Estimated % loss**		
G2.1.2.1 Rice				
G2.1.2.2 Groundnuts				
G2.1.2.3 Cotton				
G2.1.2.4 Tobacco				
G2.1.2.5 Soyabeans				
G2.1.2.6 Beans				
G2.1.2.7 Sweet Potatoes				
G2.1.2.8 Other (Specify)				

G.2.3. Livestock losses

	Estimated population	**No of animals that have died due to disaster**
G2.3.1 Cattle		
G2.3.2 Goats		
G2.3.3 Pigs		
G2.3.4 Sheep		
G2.3.5 poultry		

(Use proportional piling)	None	Low (< 40%))	Moderate (40-60%)	Severe (>60%)
G.2.4. Food Stocks losses				
G.2.5 Income losses				

G3. When will most households run out of food? (Indicate the month and year when most households will run out of food as a result of the disaster/ hazard.)

_____

G4. When do most households run out of food during a normal year? Indicate the month when most households normally run out of food in the absence of an emergence or disaster. _____

G5. (To be collected from the Rural Health Centre)				
	Current Quarter		Same Quarter last year	
	Boys	**Girls**	**Boys**	**Girls**
G5.1 No of children attending Growth monitoring programs				
G5.2 Underweight Ratio				

G6. Have any existing feeding programs been disrupted due to the emergence?

For Example	**Yes**	**No**
School Feeding		
Food Aid for the chronically ill		
Nutritional support for the vulnerable people		
Other		

G7. What proportion of households practice winter cropping? ***(Gardening during dry season)*** **……..**

G8 What is the staple food situation in the area? (Indicate number in box)

1. Readily available means you can source it when you need and in adequate quantities. ☐
2. Available with difficult means it is available in limited quantities.
3. Not available means it is not there at all.

G.9.1. Compare the current prices of staple foods to those during the same period in the last normal year					
Commodity	Unit of measure	Measure in kg	Current price (K)	Price in normal year (K)	Reason for price variation
G9.1.1 Maize					
G9.1.2 Sorghum					
G9.1.3 Millet					
G9.1.4 Rice					
G9.1.5 Cassava					

G.9.2 Has there been an increase in livestock disease incidence since the onset of the disaster?			
Disease	Extent of Spread (Kraal/village/camp	Estimated No of affected if any	Livestock movement if any. (Yes) or (No)
G9.2.1 Foot and Mouth Diseases (FMD)			
G9.2.2 Anthrax			
G9.2.3 Rabies			
G9.2.4 New Castle Disease (NCD)			
G9.2.5 African Swine Fever(ASF)			
G9.2.6 Other infectious disease (Specify)			

G. 9.3 Has there been any changes in livestock prices due to increase in livestock diseases?	
Type of livestock (fully grown)	Yes/No
G9.3.1 Cattle	
G9.3.2 Goats	
G9.3.3 Pigs	
G9.3.4 Sheep	

G.11 COPING STRATEGIES/LOCAL INTERVENTIONS							
Stakeholder	What they are doing	Where	Coverage area (Community)	Target			
				Men	Women	Children	All
1							
2							
3							
4							

H. CHALLENGES / PROBLEMS

H. What are the challenges/problems that the DDMC/Institutions/ communities facing on the ground in carrying out their work.

5.2 Report Writing and Editorial team

Yande Mwape	-	DMMU
Allan Mulando	-	WFP
Sibajene Munkombwe	-	LWF
Esnart Makwakwa	-	DMMU
Chansa Mushinge	-	FEWSNET
Oscar Silembo	-	DWA
Lytone Kanowa	-	MLGH
Sina Lunchen	-	FAO

5.3.1 Food Needs for the Displaced Populations
(in camps and other temporal shelters)

District	HHLDS IN CAMPS	OTHER	Total HHLDS in Need	Total Persons in Need	Cereal Needs in MT	Oil Needs in MT	Pulses Needs in MT
Kabwe	0	34	34	204	7	0.28	1.1
Mkushi	80	0	80	480	17	0.65	2.6
Mumbwa	0	215	215	1,290	46	1.74	7.0
Kazungula	166	0	166	996	36	1.34	5.4
Itehzi-Tehzi	67	0	67	402	14	0.54	2.2
Mazabuka	118	0	118	708	25	0.96	3.8
Namwala	92	68	160	960	35	1.30	5.2
Lukulu	0	12	12	72	3	0.10	0.4
Sesheke	81	0	81	486	17	0.66	2.6
Monze	274	0	274	1,644	59	2.22	8.9
Chibombo	0	30	30	180	6	0.24	1.0
TOTAL	**878**	**329**	**1,207**	**7,422**	**267**	**10.02**	**40.1**

Cereal: 12Kg/person/Month,	Oil: 0.45Kg/person/Month	Pulses:1.8Kg/person/Month

5.3.2 Food Needs for Non Displaced Affected Populations

District Names	Total Population in Identified Wards	Affected Population	Affected Population Displaced	Affected Population Not Displaced	Cereal Needs for the Non Displaced
Kabwe	20,019	6,006	204	5,802	209
Mkushi	13,966	8,798	480	8,318	299
Mumbwa	46,347	25,889	1,290	24,599	886
Lundazi	30,696	2,456	0	2,456	88
Luangwa	6,903	828	0	828	30
Kafue	59,474	20,816	0	20,816	749
Chavuma	7,875	1,656	0	1,656	60
Zambezi	26,841	4,380	0	4,380	158
Gwembe	22,276	7,128	0	7,128	257
Kazungula	12,645	5,058	996	4,062	146
Itehzi-Tehzi	32,588	18,575	402	18,173	654
Mazabuka	136,197	34,049	708	33,341	1,200
Monze	62,447	17,485	1,644	15,841	570
Namwala	25,557	8,434	960	7,474	269
Siavonga	34,622	9,694	0	9,694	349
Lukulu	38,696	18,187	72	18,115	652
Sesheke	21,111	4,433	486	3,947	142
Chibombo	77,547	17,836	180	17,656	636
Chinsali	88,569	5,874	0	5,874	211
Nyimba	25,872	12,352	0	12,352	445
Petauke	52,213	8,354	0	8,354	301
Chadiza	42,572	6,386	0	6,386	230
Katete	101,119	18,201	0	18,201	655
Kabompo	18,195	4,549	0	4,549	164
Mufumbwe	23,192	3,711	0	3,711	134
Chongwe	15,087	3,663	0	3,663	132
Grand Total		274,800	7,422	267,378	9,626

5.3.3. Food Needs for the Affected Populations

(Both Displaced and Non Displaced)

District Names	Total Population in Identified Wards	Affected Population Displaced	Affected Population Not Displaced	Total Affected Population	Total Cereal Needs for the Affected
Kabwe	20,019	204	5,802	6,006	216
Mkushi	13,966	480	8,318	8,798	317
Mumbwa	46,347	1,290	24,599	25,889	932
Lundazi	30,696	0	2,456	2,456	88
Luangwa	6,903	0	828	828	30
Kafue	59,474	0	20,816	20,816	749
Chavuma	7,875	0	1,656	1,656	60
Zambezi	26,841	0	4,380	4,380	158
Gwembe	22,276	0	7,128	7,128	257
Kazungula	12,645	996	4,062	5,058	182
Itehzi-Tehzi	32,588	402	18,173	18,575	669
Mazabuka	136,197	708	33,341	34,049	1,226
Monze	62,447	1,644	15,841	17,485	629
Namwala	25,557	960	7,474	8,434	304
Siavonga	34,622	0	9,694	9,694	349
Lukulu	38,696	72	18,115	18,187	655
Sesheke	21,111	486	3,947	4,433	160
Chibombo	77,547	180	17,656	17,836	642
Chinsali	88,569	0	5,874	5,874	211
Nyimba	25,872	0	12,352	12,352	445
Petauke	52,213	0	8,354	8,354	301
Chadiza	42,572	0	6,386	6,386	230
Katete	101,119	0	18,201	18,201	655
Kabompo	18,195	0	4,549	4,549	164
Mufumbwe	23,192	0	3,711	3,711	134
Chongwe	15,087	0	3,663	3,663	132
Grand Total		7,422	267,378	274,800	9,893

5.4 Shelter/Habitation Needs Table

DISTRICT	Tents
Central Province	
Chibombo	30
Kabwe	30
Mkushi	80
Mumbwa	150
Southern Province	
Kazungula	50
Itezhi-Tezhi	70
Mazabuka	80
Namwala	70
Western Province	
Lukulu	20
Total	**580**

5.5 Agriculture Need Tables

DISTRICT	Livestock Vaccines and Drugs	Inputs for Winter Cropping				Irrigation Kits	Storage / Granaries
		Maize Seed	Cassava	Others	Fertiliser (50Kg)		
Central Province							
Chibombo							
Kabwe		1,122HHx5Kg/HH			2,244	220	
Mkushi		1,000HHx5Kg/HH			2,000	200	
Mumbwa		500HHx5Kg/HH			1,000	400	
Copperbelt Province							
Kitwe							
Ndola							
Eastern Povince							
Lundazi	0xytetracycline Lasota 100 bottl.	2,000HHx10kg/HH			1,000		
Mambwe		900HHx10kg/HH			350		
Nyimba		600HHx10kg/HH			375		
Chadiza	ECF vaccine - 1000 doses BQ vaccine - 30 bottles LS vaccine - 20 bottles Dip 10 x 5 ltrs Oxyject 20 x 100ml Parvexon 30 x 100ml Albendazole - 4 boxes Sammonvine-100 sachets	500HHx5kg/HH			D' Comp - 500 Urea - 500 x 50kg		
Katete	Paraexon 20 x 50mls	500HHx10kg/HH			500		
Petauke	Paraexon 20 x 50mls	500HHx10kg/HH			450		

Luapula Province							
Milenge							
Lusaka Province							
Chongwe		600HHx10kg/HH			300		
Kafue	30,000 Doses Black leg 30,000 Doses Foot/Mouth Gumbolo 3,000 bottles	1,000HHx5Kg/HH			2,000	1,000	
Lusaka							
Luangwa	0xytetracycline Lasota 150 bottles Gumbolo 100 bottles s19 100 bottles Karadip 100kgs TickGrease 500gx10 Amplrium 50 Satchets Samorise10 boxes	1,000HHx10kg/HH			375		1 Shed
Northern Province							
Chinsali							
North-Western Province							
Chavuma	10,000 Doses Black leg 10,000 Doses Foot Mouth Gumbolo 5,000 bottles	600HHx10kg/HH				150	300
Zambezi	5,000 Doses Black leg 5,000 Dos Foot & Mouth Gumbolo 5,000 bottles	1,600HHx10kg/HH				400	800
Kabompo		500HHx10kg/HH				200	400
Mufumbwe		500HHx10kg/HH				200	400
Southern Province							
Gwembe	40,000 Dos Foot -Mouth Gumbolo 4,500 bottles	500HHx5Kg/HH			2,000	500	2,500
Itehzi-tehzi	52,000 Dos Haemo. Septi 52,000 Doses Black leg 30,000 Dos Foot & Mouth 300 x 100mls Vitamins	400HHx5Kg/HH			200		

	500 x 100mls Antibiotics						
Namwala	3,000 Doses ECF 114,000 Dos Haem. Sept 114,000 Dose Black Leg 6,000 Anti-rabies 114,000 Foot & Mouth 6000 x 100mls Antibiotics 100 x 100mls Vitamins	1,100HHx5Kg/HH			2,200	200	200
Mazabuka	3,000 Doses ECF 142,000 Dos Haem. Sept 142,000 Dose Black Leg 142,000 Foot & Mouth 7000 x 100mls Antibiotics 150 x 100mls Vitamins	2,000HHx5Kg/HH			4,000	400	1,600
Siavonga	30,000 Dos Foot & Mouth Gumbolo 4,000 bottles	1,000HHx5Kg/HH			1,000	200	
Western Province							
Lukulu	50,000 Dos Foot & Mouth	4,000HHx10Kg/HH	1,000			1,000	
Sesheke							

5.6 Water and Sanitation Needs Table

DISTRICT	Targeted Households	Storage Containers	50Kg x HTH (granular cl_2)	250ml of chlorine	Water Plant	Water Bowser	Vector Control	Garbage Disposal	Sinking Boreholes	Pit Latrines	Others
Central Province											
Chibombo	1,417			8,500						153	
Kabwe	2,619		8	15,713		1			6	72	
Mkushi	1,352		3	8,114		1			3	36	
Mumbwa	3,785		4	22,710		1			9	108	
Copperbelt Province											
Kitwe	333		10x50Kg	2,000			8 Hudson Sprayers				10 x 50 Kgs Lime
Ndola	417		10x50Kg	2,500			8 Hudson Sprayers				10 x 50 Kgs Lime
Eastern Povince											
Lundazi	716		2	4,297		1	10 Hudson Sprayers		1	12	
Mambwe	1,276		2	7,656		1	6 Hudson Sprayers		4	48	
Nyimba	2,059			12,352					25	100	
Chadiza	7,500		3	45,000							570 Bott.Test Kits
Petauke	1,392			8,354							
Katete	3,034			18,201							
Luapula Province											
Milenge	63			380						15	
Lusaka Province											
Chongwe	833			5,000					50	100	
Kafue	2,949		3	17,695		1			10	120	
Luangwa	483		2	2,899		1	20 Hudson Sprayers		0	12	
Lusaka	2,333		20x50Kg	14,000			150 Hudson Sprayers				20 x 50 Kgs Lime
Northern Province											
Chinsali	833			5,000			10 Hudson Sprayers		40		

N-Western Province											
Chavuma	2,340		3	14,040		1			4	48	
Zambezi Kabompo	2,182 750		3	13,091 4,500					5	60	
Mufumbwe	617			3,700							
Southern Province											
Gwembe	1,559		2	9,356					6	72	
Kazungula	738		2	4,426					2	24	
Monze	3,411		3	20,464					9	108	
Itezhi-Tezhi	3,994		3	23,961	1			2,500 Bins	10	120	
Mazabuka	16,808		12	100,848		2	30 Hudson Sprayers 30 Incenerators 100 lts Reskol		41	492	10 Motorbikes
Namwala	1,406		4	8,434 0			20 Hudson Sprayers 200 Boxes Zinc Phosph Rat Bait 100 x 50 kg Rontakil, Reskol 40x5lts Gem Guard 5 lts		14	168	
Siavonga	2,302		3	13,814					7	48	
Western Province											
Lukulu	3,386		3	20,315				7,000 Bins	9	108	
Sesheke	733		3	4,400				7,000 Bins	9	108	

Assumptions:

250 families for each 50Kg of HTH per month

20 persons per latrine (emergency situation only)

2 bottles of chlorine per month for each affected family

5.7. Education Needs Table

DISTRICT	Transport	Alternative Learning space	Temporal acc. For Teachers	Exercise Books	Text Books	Pen, Pencils Erasers	Mobile Boards	Sports Kits	Back to Sch Programs	Water Supply	Water Treatment	Sanitation Facilities
Central Province												
Chibombo												
Kabwe		Space for 600 pupils	Acc. For 10 Teachers	6,000	6,000	6,000	10	10	1	4 Boreholes	2,500x250ml Chl.	40 Latrines
Mkushi		Space for 450 pupils	Acc. For 8 Teachers	4,500	4,500	4,500	8	8	1	2 Boreholes	2,000x250ml Chl.	30 Latrines
Mumbwa		Space for 300 pupils	Acc. For 6 Teachers	3,000	3,000	3,000	6	6	1	3 Boreholes	2,000x250ml Chl.	25 Latrines
Copperbelt												
Kitwe												
Ndola												
Eastern Povince												
Lundazi			5 Tents		1,000	25,000	12		1	2 Boreholes	3000x250ml Chl.	
Mambwe	2 Boats			2,000	1,000	20,000				2 Boreholes	1,500x250ml Chl.	
Nyimba												
Chadiza												
Petauke												
Katete												
Lusaka Province												
Chongwe												
Kafue		Space for 1,400 pupils		15,000	7,500	15,000					1,500x250ml Chl.	
Lusaka												
Luangwa				2,000	1,000	25,000					1,000x250ml Chl.	
Luapula Province												
Milenge												
Northern												
Chinsali												
North-Western Province												
Chavuma		Space for 1,500 pupils		13,000	6,000	13,000	30		1		10,000x250ml Chl.	
Zambezi		Space for 1,000 pupils		10,000	5,000	10,000	25		1		7,500x250ml Chl.	

Kabompo		Space for 400 pupils								2 Boreholes		30 Lat. (Chongo & Mumbezi)
Mufumbwe		120 desks at Matushi										15 Latrines at Matushi
Southern Province												
Gwembe		Space for 360 pupils	Acc. For 8 Teachers	3,600	1,000	500	8	4	1		500x250ml Chl.	
Kazungula		Space for 450 pupils	Acc. For 8 Teachers	4,500	450	900	6	10	3	2 Boreholes		20 Latrines
Itehzi-tehzi		Space for 1,000 pupils	Acc. for 10 Teachers	20,000		20,000	20			5 Boreholes	6,000x250ml Chl.	40 Latrines
Namwala		Space for 920 pupils	Acc. for 8 Teachers	10,000		10,000	23	21			1,000x250ml Chl.	29 Latrines
Mazabuka		Space for 450 pupils	Acc. for 4 Teachers	4,500		4,500	12	7		3 Boreholes	1,000x250ml Chl.	5 Latrines
Monze												
Siavonga		Space for 200 pupils		2,000	500	500	4	2	1			
Sinazongwe												
Western Province												
Lukulu				1,000		200	2	2				10 Latrines
Sesheke												

5.8 Health Needs Analysis Table

DISTRICT	Analgesics	Anesthetics	Antibiotics	Steroids	Vaccines	ARVs, ART	DOTS	HEPS	Maternal Services	Child health Services	Home Basedcare	Patient Transport	Others
Central Province													
Chibombo													
Kabwe			650 Anti Malaria Kits										1,000 ITNs 30 Blankets
Mkushi													100 Blankets
Mumbwa	150 Bottl. Panadol 50 Bottl. Asprin 50 Bottl. Declofenac	50 Bottl. Liquocane 50 Bottl. Lidocaine	50 Bottl. Cloxacillim 50 Bottl. Septrin 50 Bottl. Eryathromyn	20 Bottl. Predmisolem 20 Bottl. Amynophillin	30 Bottl. TT	80 Bottl. Truvada	80 Bottl. Streptomycillin 100 Bottl. 4FDC						300 Blankets

Copperbelt Province													
Kitwe			500 Bottles x 50										Canula, 2,000 ORS, 4,000 Sachets Disinfectants, 15 x 20 litres
Ndola			500 Bottles x 50										Canula, 2,500 ORS, 5,000 Sachets Disinfectants, 15 x 20 litres
Eastern Province													
Lundazi	Panadol 10,000 tablets Aspirin 5,000 tablets	TEO 500	Septrin 6,000 tablets Nalidixic 5,000 tablets		BCG			1,000 x 50Kg		Immunisation Sch. Feeding		1 Boat	
Mambwe	Panadol 10,000 tablets Aspirin 5,000 tablets		Septrin 6,000 tablets Nalidixic 5,000 tablets		BCG			2,500 x 50kg		Immunisation Sch. Feeding		1 Boat	
Nyimba													
Chadiza					Pentavalent 5,000 dos. T.T - 6,000 doses								
Katete													
Petauke													
Luapula Province													
Milenge													
Lusaka Province													
Chongwe													

Kafue	200 Bottl. Panadol 20 Bottl. Asprin	50 Bottl. Liquocane 50 Bottl. Lidocaine	50 Bottl. Cloxacillim 50 Bottl. Septrin	20 Bottl. Predmisolem 20 Bottl. Amynophillin	30 Bottl. TT		100 Bottl. Streptomycillin 100 Bottl. 4FDC						2,000 ITNs
Luangwa	Panadol 10,000 tabs Aspirin 5,000 tabs		Septrin 6,000 tablets Nalidixic 5,000 tablets		BCG			2,000 x 50kg		Immunisation Sch. Feeding			
Lusaka			3,000 Bottles x 50										Canula, 14,000 ORS, 28,000 Sachets Disinfectants, 50 x 20 litres
Northern Province													
Chinsali													
North-Western Province													
Chavuma	2,000x25 Paracetemo		2,000x20 Amoxicillin		10x40 Anti-Rabies	120x40 Zidovudine					30 Kits	10 Strechers	2,000 Fluid Giving Sets
Zambezi	1,000x25 Paracetemo		1,000x20 Amoxicillin		5x40 Anti-Rabies	60x40 Zidovudine					30 Kits	7 Strechers	2,000 Fluid Giving sets
Kabompo	20 Bottl. Asprin	50 Bottl. Lidocaine	50 Bottl. Septrin	20 Bottl. Amynophillin			100 Bottl. 4FDC						5,000 ITNs
Mufumbwe	20 Bottl. Asprin	50 Bottl. Lidocaine	50 Bottl. Septrin	20 Bottl. Amynophillin			100 Bottl. 4FDC						4,000 ITNs
Southern Province													
Gwembe	400 Bottl. Panadol 100 Bottl. Asprin							300 x 50kg					1,000 ITNs
Kazungula	Panadol 3 x1,000 Indocin 10 x 1,000	50 Bottl. Liquocane	Amoxly 50 x 100 Doxy 25 x 100		BCG 20 Vuls Measles 500 Vuls				10 RPR kits 10 HB Kits	360 U5 cards Weight scales	10 Kits		

	Brufen 10 x 1,000		Septrin 50 x 1,000						3,000 amps. Norstrate	10			
Itehzi-Tehzi	Panadol 150 Boxes	50 Bottl. Liquocane 50 Bottl. Lidocaine	50 Bottl. Cloxacillim 50 Bottl. Septrin 50 Bottl. Eryathromyn	20 Bottl. Amynophillin	30 Bottl. TT	100 Bottl. Truvada	100 Bottl. 4FDC		100 Bicycles for TBAs	Immunisation			
Namwala Mazabuka	10,000 tablets Panadol 10,000 tablets Indocid	10 liters Savlon 10 000 tab. Brufen	250x100ml Cotrimoxaze 10,000 x 250 mg Amoxil	15 00 Tablets 1x100x 5 Prednisole	3,000 Doses BCG 8,000 BCG, 6,000 TT			100 x 50 Kg	13 RPR kits			2 Ambulances 1 Ambulance 20 Bicycles	2 Ambulances 1 Ambulance 20 Bicycles
Siavonga	200 Bottl. Panadol 20 Bottl. Asprin	50 Bottl. Liquocane 50 Bottl. Lidocaine	50 Bottl. Cloxacillim 50 Bottl. Septrin	20 Bottl. Predmisolem 20 Bottl. Amynophillin	30 Bottl. TT		100 Bottl. Streptomycillin 100 Bottl. 4FDC						5,000 ITNs
Western Province													
Lukulu	Pethidine 100mls – 30 Diclofenac 75mg – 30	40 Vials. Liquocane 15Ampusles Biphav 30 Amps Valium	1,000 Vials Pen V 5MV	200 Hydrocortson	500 dos. TT 1,330 Measl. 3,800 OP 1,820 BCG	100 Bottl. Truvada	100 Bottl. 4FDC	50 x 25 Kg	100 Bicycles for TBAs	Immunisati.			1 boats 1 Radio set 20,000 ITNs

6.0. Tables of Findings

6.1 Damaged Public and Private Buildings and Habitations

DISTRICT	HEALTH CENTRES	SCHOOLS	PUBLIC / PRIVATE BUILDINGS	HABITATIONS
Chibombo	-	Malambanyama Kafushi High Sch Chalabana Sch Nansunsa Basic DAPP Childrens Sch Nachiyaba Basic	-	331 Houses
Kabwe	-	Gombe Basic Buseko Basic Kafulamanse Basic Makulu Comm. Sch	-	189 Houses and habitations
Mkushi	-	Chembe Basic. Mubo Comm. Sch Likuma Comm Sch.	-	100 Houses and habitations
Mumbwa	-	Milandu Basic Muchabi Basic Mukubu Basic	-	330 Houses and habitations
Kitwe	-			
Ndola		Yengwe Basic Sch. Nkwazi Basic Sch. Chawama Basic		38 Houses
Lundazi	-	Chibeza Basic	Chibeza Catholic Chu	22 Houses and
Mambwe	Kamoto Hos.	Mambwe High Sch Kakumbi Basic	Flat Dogs Lodge Marula Lodge Mushroom Lodge Nkhwali Safaris Trackland Trails	
Nyimba	-	Mukoma Basic	Chief Ndake Court	8 houses
Chadiza	-	-	-	-
Petauke	-	-	-	-
Katete	-	-	-	-
Chongwe	-	-	-	
Lusaka	-	-	-	
Luangwa	-	-	-	65 houses and habitations
Kafue	-	Munkolo Basic St Josephs Basic Chikupi Basic Malabanyika Basic	-	120 houses and habitations
Chinsali	Lubwa Cent Chinsali Hosp	Mulilansolo Basic Mubo Comm. Sch Likuma Sch.		69 Houses

Milenge	Kapalala	Changwe Lungo Tande Basic	-	50 Houses
Chavuma	-	Sanjolo Basic	-	300 houses and habitations
Zambezi	-	-	-	100 houses and habitations
Kabompo	- -	Chongo Basic Mumbezi Basic	- -	34 houses and habitations
Mufumbwe	-	Matushi Basic	-	-
Kazungula	-	Kasaya Basic Mundia Basic	- -	166 houses and habitations
Gwembe		Mukuyu Basic Fumbu Basic Kota-Kota Comm.	- - -	225 houses and habitations
Itehzi-Tehzi	- - - -	Kalubongwe Basic Nyambo Basic Sch. Kasaka Basic Sch. Kakubwe Basic	-	117 houses and habitations
Mazabuka	Itebe Health Cent.	Mazbuka Central Itebe Sch. Munenga Basic Mwanachingwala	-	77 houses and habitations
Monze		Malundu Basic Kanundwa Basic	-	330 houses
Namwala	-	Nakamboma Moobola, Maala Ngambo, Muchila Namwala Central, Bambwe, Chitongo Kabulamwanda Chitongo, Ndema Katengwa, Itapa	-	1,100 houses
Siavonga	-	Mphango Basic	-	30 houses and habitations
Sinazongwe		Siazwela Com. Sch Kayuni Comm. Sch Kasika Comm. Sch.	-	1,903 houses and habitations
Lukulu	-	-	-	63 houses and habitations
Sesheke	-	-	-	84 houses and habitations

6.2 Damaged Roads, Bridges and Culverts

DISTRICT	NAME OF ROAD/BRIDGE/CULVERT	DESCRIPTION OF DAMAGE
Chibombo	Chibombo to Malambanyama Mwachisompola to Farmways Muchenje to Mungulule Chisamba to Mombochi Kabile to Kabangule Chitanda to Ipongo Chisamba to Momboshi Bridge Kabile to Kabangulale Mungulu to Lusaka	Road submerged Road submerged Road submerged Road submerged Road submerged Road submerged Completely Washed Away Completely Washed Away Completely Washed Away
Kabwe	-	-
Mkushi	Mkushi-Mboroma Rd (Chingómbe) Mkushi-Mbosha Rd (Chipawa Ward) Mkushi-Chembe Rd (Mwalala Ward)	Road submerged Road submerged Road submerged
Mumbwa	Nampundwe-Blue Lagoon Road	Potholes and Gullies have formed
Ndola		
Kitwe		
Lundazi	Culvert on the Chipata-Lundazi Rd	Partially washed away
Mambwe	Culvert on the Chipata-Mambwe Rd	Partially washed away
Nyimba	Great East road (Nyimba & Kacholola) Msima Chipembe-Matonje Kapakasa Matipa Mombe Hofmeyer road Luangwa roasd Chikwasha bridge Mbishinga bridge Chisimbwe road Luembe- Chinambi road Nyalugwe - Chamilala road	Potholes have formed on road Road and culvert washed away Road and culvert washed away Road and culvert washed away Culvert damaged Road and bridges washed away Road and bridges washed away Road submerged Culverts damaged Culverts damaged Road water logged Road and culvert washed away Road and bridges washed away
Katete	Mngomba Bridge D-125 Chadiza Road Vlamukoko Road Kagoro Road Mwandafisi road at Mwandafisi School Katawa Road Chinkhombe D21 Road D-412 (Road) D-585 (Road)	Culvert chocked, water overflow Hole in middle due to corrosion Both approaches eroded Gullies on approach Water undermining the culvert Culvert washed away Water overtopping, wash away Wing wall damaged Part of the bridge washed away
Chadiza	Chadiza - Vubwi road	Zaluso Culvert partially damaged

	Chadiza - Vubwi road	Nguwi culvert broken
	Chadiza - Vubwi road	Mwami bridge damaged
	Chadiza - Vubwi road	Ngala Bridge damaged
	Chadiza - Vubwi road	Chipwete drift partly damaged
	Chadiza - Vubwi road	Mlanga culvert washed away
	Chadiza - Vubwi road	Nyamandevu culvert washed away
	Chadiza - Vubwi road	kazibindu culvert cut and sunk
	Msokela turn off	Road developed gullies
	katavya road	Road severely eroded
	Chikoma mwami road	Bridges at Vubwi partially
Petauke	T4 Merwe rd matonga bridge	Bridge completely washed away
	Minga mission chilimaziche road	Road washed away
	Luanfwa Ukwimi Songovya culvert	Under side of culvert damaged
Chongwe		
Kafue	Gota-Gota bridge	Partially collapsed
	Kabwadu bridge on Munsanja stream	Partially collapsed
	Mongu stream	Partially collapsed
	Mwembeshi-Mpamba culvert	Partially collapsed
	Mano-Mpamba Road and culvert	Road and culvert flooded
	Chinyanja - Makombwe Rd and culvet	Road and culvert washed away
	Munyew-Kabwimba Rd and culvert	Partially collapsed
Lusaka		
Luangwa	Kavalamanja road	Bridges on the road have collapsed
Chinsali	Mulilansolo Nkweto road	Potholes and Gullies have formed
	Chinsali to Safiwa Pontoon (D56)	Potholes and Gullies have formed
	Chinsali to Kasama to Isoka (D18)	Potholes and Gullies have formed
	Chunga Loop	Potholes and Gullies
	Malumbo Chama	Potholes and Gullies
	Chachacha Road	Potholes and Gullies
	Shiwangandu Kasama(D53)	Potholes and Gullies have formed
	Lubu Bridge	Has been Damaged
	Kasanta Bridge	Completely Washed Away
	Mulanga Culverts	Completely Washed Away
	Kaonga Culverts	Completely Washed Away
	Culverts between the Hspital and Mill	Partially damaged
	Mulolo Bridge	Completely Washed Away
	Fonkofonko Bridge	Completely Washed Away
	Sampule Bridge	Completely Washed Away
	Kasanta Bridge	Completely Washed Away
Milenge	Nanda Imo Bridge	Completely Washed Away
	Mulungushi Culvert	Completely Washed Away
	Ikufi Culvert	Completely Washed Away
	Likwofye Bridge	Partially washed away
	Mulenga Panga Panga Road	Partially washed away
Chavuma	Main road to Nyatanda	Submerged, culverts washed away
	Main road to Nguvu main road	Submerged, culverts washed away
	Main road to Nyambingila	Submerged, culverts washed away

Zambezi	Muyembe	Area cut-off -Kashiji brid. damaged
	Main road to Kakoto	Submerged, culverts washed away
	Mpidi	Culverts on Lwitadi river broken
	Main road to Nyawanda	Submerged, area inaccessible
Kabompo	Kabompo main road	Potholes and Gullies have formed
	Chongo Bridge	Partially collapsed
Mufumbwe	Kabipupu Bridge	Partially collapsed
	Kamizekenzeke Bridge	Partially collapsed
	Matushi Culverts	Submerged, culverts washed away
Gwembe	Monze-Gwembe main road	Potholes and Gullies have formed
	Muyumbwe-Sinafala culvert at Tebe	Partially collapsed
	Muyumbwe-Sinafala culvert at Kkoma	Partially collapsed
	Gwembe-Muyumbwe culvert	Partially collapsed
	Muyumbwe-Nakakwele culvert	Partially collapsed
	Malobe Bridge	Partially collapsed
Kazungula	Kasaya to Simalala road	Road flooded and impassible
	Kasaya to Kasayamalo road	Road flooded and impassible
Itezhi-Tezhi	Itehzi-Tehzi main road	Potholes and Gullies have formed
	Nasenga Bridge to Namwala	Bridge has been submerged
	Banga Bridge in Banga	Bridge has been submerged
	Shanangoma embarkment	Embankment has collapsed
Mazabuka	Itebe road	Road submerged
	Malabo-Haampiko road	Potholes and Gullies have formed
	Ching'angauka-Chikani road	Road flooded
	Nasenga bridge culvert	Culvert has been washed away
	Ngwezi Bridge	Bridge eroded, road impassible
	Mweemba road	Road eroded exposing bridge
Monze	Monze-Namwala Road	Badly damaged with dip gullies.
	Culverts on CH 35 at Namilongwe	Culverts washed away.
	St. Mary's main road	Damaged
	St. Mary's -Nmulonga road	Potholes and Gullies have formed
	Silishebo-Sinamasa road	Potholes and gullies formed
	St. Mary's -Simukali road	Potholes and gullies formed
	Miyoba-Chipembele road	Damaged in some parts
	Mujika-Ntambo road	Damaged in some parts
	Chona Nadongo road	Damaged in some parts
	Jubwe bridge	badly eroded by fast running water
	Njola-Chivuna culverts	Culverts eroded
	Kayola bridge	eroded and broken
	Drift on U36 at CH 8	Drift wished away
Namwala	Choma-Namwala Road	Road is flooded in many places
	Monze-Namwala Road	Road is flooded in many places
	Namwala-Itehzi Tehzi Road	Completely submerged
	Katengwa Road	Road is flooded in many places
	Namwala-Kalundu Road	Submerged at the embankment

Siavonga	Simaamba-Manchahwa culvert	Partially collapsed
	Shadreck culvert in Manchahwa ward	Partially collapsed
	Syakalinda culvert in Lusanga ward	Partially collapsed
	Nankwilimba culvert in Lusitu ward	Partially collapsed
Sinazongwe	Mamba-Batoka Road	Culvert replaced by bailey bridges
	Sinazeze-Chiyabi road	Culvert washed away
	Siameja road	Culverts washed away
	Mamba township road	Some parts badly damaged
	Sinazongwe township road	some parts badly damaged
	Siansonwa road	five major culverts washed away
Lukulu	Nasiwe Bridge in Kawaya	Bridge is submerged
	Nalusheke Bridge in Kawaya	Bridge is submerged
	Chombwe Bridge in Mbanga	Bridge is submerged
	Yonde Bridge in Kawaya	Bridge is submerged
	Chiwaya Bridge in Kashushu	Bridge is submerged
	Lutumo Bridge in Mitete	Bridge is submerged
	Shikundulo Bridge in Dongwe	Bridge is submerged
	Mwito Bridge in Mwitio	Bridge is submerged
Sesheke	Simongoma-Mulobezi Rd	Culverts washed away
	Simongoma-Sichili Rd	Culverts washed away
	Bridge at Machile river near School	Bridge submerged, water overflow
	Malomo bridge at Njoko	Bridge submerged, water overflow
	Sesheke Boma Rd via Lusu, Malumo	Some parts completely submerged
	Loanja Bridge	Bridge submerged, water overflow

6.3 Table Showing Estimated Crop Losses

DISTRICT	CROP TYPE	ESTIMATED HA PLANTED	ESTIMATED % CROP LOSS
Chibombo	Maize	60,203	33%
	Groundnuts	4,089	25%
	Cotton	6,520	25%
Kabwe	Maize	247	30%
	Soya Beans	6	30%
	Sweet Potatoes	7	30%
Mkushi	Maize	291	70%
	Sorghum	150	60%
	Groundnuts	100	60%
Mumbwa	Maize	30,372	60%
	Groundnuts	247	65%
	Cotton	250	60%
Kitwe			
Ndola			
Lundazi	Maize	135,650	20%
	Cassava	1,676	1%
	Ground nuts	17,404	2%
Mambwe	Maize	2,860	30%
	Cotton	355	0%
	Rice	1,050	0%

Nyimba	Maize	12,000	30%
	cotton	4,000	10%
	Groundnuts	1,200	8%
Petauke	Maize	40,988	30%
	Groundnuts	23,421	10%
	Sunflower	3,687	10%
Chadiza	Maize	13,000	20%
	Cotton	2,192	0%
	Soya Beans	3,000	10%
Katete	Maize	56 280	35%
	Groundnuts	12 350	12%
	Cotton	25 308	10%
Chongwe	Maize	15,131	25%
	cassava	135	0%
	Soya Beans	83	0%
Luangwa	Maize	13,690	20%
	Ground nuts	8,630	12%
	Cowpeas	3,705	4%
Lusaka			
Kafue	Maize	13,600	35%
	Soya Beans	1,300	35%
	Sweet Potatoes	100	35%
Chinsali	Maize	2,430	10%
	Sorghum	1,599	5%
	Cassava	3,429	12%
Milenge	Maize	20,042	40%
	Cassava	1,023	12%
	Groundnuts	1,254	10%
Chavuma	Maize	460	60%
	Cassava	650	60%
	Rice	320	70%
Zambezi	Maize	4,350	30%
	Cassava	8,700	35%
	Sweet Potatoes	650	30%
Kabompo	Maize	3,500	40%
	Cassava	2,600	15%
	Groundnuts	1,400	20%
Mufumbwe	Maize	6,291	20%
	Cassava	2,411	15%
	Sorghum	412	13%
Gwembe	Maize	6,500	60%
	Sorghum	1,239	35%
	Cotton	1,983	0%
Kazungula	Maize	7,800	40%
Itehzi-Tehzi	Maize	7,204	50%
	Cassava	925	55%
	Cotton	550	65%
Mazabuka	Maize	20,000	40%
	Cotton		15%
	G/Nuts		20%

Monze	Maize	24,895	23%
	G/Nuts	1,467	30%
	Sweet Potatoes	1,016	15%
Namwala	Maize	16,000	45%
	Cotton	3,000	25%
	G/Nuts	3,000	30%
Siavonga	Maize	4,935	30%
	Millet	3,753	19%
	Cotton	409	34%
Sinazongwe	Maize	10,050	44%
	Cotton	5,450	12%
	Millet	1,286	41%
Lukulu	Maize	3,950	60%
	Cassava	149	40%
	Rice	380	40%
Sesheke	Maize	39,611	15%
	Sorghum	7,123	19%
	G/Nuts	9,266	20%

6.4 Table Showing Estimated Livestock Losses

DISTRICT	TYPE OF LIVESTOCK	LIVESTOCK POPULATION	% OF ESTIMATED LIVESTOCK DEATHS
Chibombo	Poultry		30%
Kabwe	Poultry		30%
Mkushi	Poultry		50%
Mumbwa	Cattle	74,000	1%
	Poultry	63,000	1%
Kitwe			
Ndola			
Nyimba	Poultry	84,000	0%
	Cattle	31,000	0%
	Goats	51,000	0%
Lundazi	Poultry	152,594	0%
	Cattle	52,394	0%
	Pigs	22,035	0%
Mambwe	Poultry	3,878	0%
Petauke	Cattle	59,794	0%
	Poultry	132,000	0%
	Pigs	58,608	0%
Chadiza	Cattle	23,301	0%
	Pigs	12,970	0%
	Poultry	41,000	0%
Katete	Cattle	62,000	0%
	Pigs	70,500	0%
	Poultry	130,600	0%
Chongwe			

Luangwa	Cattle	121	0%
	Goats	1,053	0%
	Chickens	3,324	1%
Lusaka			
Kafue	Cattle	11,000	0%
	Poultry	6,292	0%
	Goats	26,343	0%
Chinsali	Poultry		50%
Milenge	Cattle	74,000	1%
	Poultry	63,000	1%
Chavuma	Cattle	9,160	30%
	Chickens	10,991	95%
Zambezi			
Kabompo	Cattle	6,617	0%
	Goats	10,495	0%
	Poultry	44,495	36%
Mufumbwe	Cattle	3,000	0%
	Goats	12,000	0%
	Poultry	35,000	42%
Gwembe	Cattle	37,000	0%
	Poultry	47,000	0%
	Goats	42,000	0%
Kazungula	Poultry		50%
Itehzi-Tehzi	Cattle	50,000	0%
	Poultry	5,100	0%
	Goats	35,250	0%
Mazabuka	Cattle	142,708	2%
Namwala	Cattle	114,000	2%
	Goats	7,491	3%
	Chickens	31,311	3%
Monze			
Siavonga	Cattle	26,000	0%
	Poultry	41,000	0%
	Goats	52,000	0%
Sinazongwe			
Lukulu	Cattle	50,000	0%
	Poultry	80,000	3%
Sesheke	Cattle	64,174	0%
	Goats	10,500	0%
	Poultry	22,610	0%

6.5. Table Showing Flood Affected Population in wards

DISTRICT	WARDS	PROJECTED WARD POPULATION	AFFECTED WARD POPULATION
Central Province			
Chibombo	Chitanda	10,758	2,474
	Mashikili	23,967	5,512
	Chinkonkomene	23,834	5,482
	Lunjonfwa	7,842	1,804
	Ipongo	11,146	2,564
Chibombo - Totals		**77,547**	**17,836**
Kabwe	Muwowo	7,233	2,170
	Munyama	5,595	1,678
	Luansanse	1,286	386
	David Rumshi	5,905	1,772
Kabwe - Totals		**20,019**	**6,006**
Mkushi	Ching'ombe	4,991	3,144
	Chipaba	1,019	642
	Mwalala	2,018	1,271
	Musofu	5,938	3,741
Mkushi - Totals		**13,966**	**8,798**
Mumbwa	Nampundwe	12,383	7,677
	Chisalu	15,972	7,986
	Milandu	9,793	4,897
	Myooye	8,199	5,329
Mumbwa - Totals		**46,347**	**25,889**
Copperbelt Province			
Kitwe			
Ndola			
Eastern Povince			
Lundazi	Kazembe	5,281	422
	Lumimba	7,640	611
	Chibande	7,490	599
	Chimaliro	10,285	823
Lundazi - Totals		**30,696**	**2,456**
Mambwe	Ndima	7,161	72
	Mnkhanya	13,833	138
	Malama	1,198	12
	Kasamanda	5,151	52
Mambwe - Totals		**27,343**	**273**
Nyimba	Chamilala	4,273	2,350
	Chinsinbwe	4,527	2,489

	Chinambi	12,504	5,001
	Luangwa	4,568	2,512
Nyimba - Totals		**25,872**	**12,352**
Petauke	Chisangu	12,160	1,946
	Lusangazi	2,260	362
	Mateomzeka	6,977	1,116
	Mawanda	7,748	1,240
	Nyakawise	9,296	1,487
	Singozi	8,021	1,283
	Nsimbo	5,751	920
Petauke - Total		**52,213**	**8,354**
Chadiza	Mangwe	7,615	1,142
	Naviluri	5,556	833
	Chamadala	3,490	524
	Ambidzi	2,305	346
	Taferansoni	3,092	464
	Khumba	3,264	490
	Mwangazi	4,707	706
	Vubwi	6,585	988
	Dzodwe	2,974	446
	Chadzombe	2,984	448
Chadiza - Total		**42,572**	**6,386**
Katete	Chingilizya	5,306	955
	Chindwale	5,024	904
	Kapoche	2,926	527
	Kamwaza	7,733	1,392
	Kafumbwe	6,975	1,256
	Milanzi	6,996	1,259
	Kapangulula	9,758	1,756
	Lwandazi	6,811	1,226
	Kazala	7,886	1,419
	Chimtende	7,200	1,296
	Vulamkoko	10,484	1,887
	Kasangazi	4,650	837
	Mngomba	9,186	1,653
	Nyamansonko	10,184	1,833
Katete - Total		**101,119**	**18,201**
Luapula Province			
Milenge	Sokotwe	2,619	419
	Mikula	6,615	1,058
	Mulumbi	2,426	388
	Itemba	4,460	714
	Nsunga	1,197	192
	Kampalala	1,205	193
Milenge-Total		**18,522**	**380**
Lusaka Province			

Chongwe	Shikabeta	1,806	632
	Bunda Bunda	8,599	1,720
	Lwimba	4,682	1,311
Chongwe - Totals		**15,087**	**3,663**
Luangwa	Mkaliva	776	93
	Mphuka	1,439	173
	Chiriwe	1,198	144
	Katondwe	2,212	265
	Mankhokwe	1,278	153
Luangwa - Totals		**6,903**	**828**
Kafue	Chikupi	7,527	2,634
	Chiawa	3,275	1,146
	Kambale	5,276	1,847
	Chinyanja	8,674	3,036
	Lukolongo	3,662	1,282
	Namalombwe	14,665	5,133
	Matanda	9,005	3,152
	Shabusalo	7,390	2,587
Kafue - Totals		**59,474**	**20,816**
Lusaka			
Northern Province			
Chinsali	Inchinga	23,993	1,332
	Chilinda	12,429	666
	Lubwa	10,864	708
	Nkulungwe	7,667	498
	Chamusenga	6,638	408
	Kaunga	10,479	690
	Itapa	16,499	936
Chinsali - Totals		**88,569**	**5,874**
North-Western Province			
Chavuma	Nyatanda Nyambingila	2,475	756
	Nguvu	1,162	288
	Kalombo kamusamba	4,238	612
Chavuma-Total		**7,875**	**1,656**
Zambezi	Muyembe	4,800	1,200
	Kakoto	1,280	1,020
	Mpidi	19,761	1,158
	Nyawanda	1,000	1,002
Zambezi-Totals		**26,841**	**4,380**
Kabompo	Mumbeji	5,366	1,342
	Chikenge	1,655	414
	Kabompo Central	11,173	2,793
Kabompo - Totals		**18,195**	**4,549**
Mufumbwe	Kaminzekenzeke	2,779	445
	Matushi	7,001	1,120
	Musoneji - Kabipupu	4,349	696

	Mushima	4,859	777
	Lalafuta	4,203	673
Mufumbwe - Totals		**23,192**	**3,711**
Southern Province			
Gwembe	Koto-kota	1,689	541
	Bbondo	4,415	1,413
	Fumbo	3,266	1,045
	Sinafala	3,303	1,057
	Chibuwe	3,213	1,028
	Masanga	2,888	924
	Luumbo	3,502	1,121
Gwembe - Totals		**22,276**	**7,128**
Kazungula	Sikaunze	8,137	3,255
	Ngwezi	4,509	1,803
Kazungula - Totals		**12,645**	**5,058**
Itehzi-tehzi	Kabulungwe	1,777	1,013
	Nyambo	2,886	1,645
	Makunka	1,595	909
	Lubanda	5,937	3,384
	Luubwe	1,797	1,024
	Basanga	4,967	2,831
	Masemu	13,629	7,768
Itehzi-Tehzi - Totals		**32,588**	**18,575**
Mazabuka	Itebe	10,316	2,579
	Kalama	9,760	2,440
	Mwanachingwala	10,757	2,689
	Mazabuka	14,130	3,533
	Ngwezi	31,184	7,796
	Nakambala	21,060	5,265
	Lubombo	8,617	2,154
	Nega-Nega	13,592	3,398
	Chitete	8,826	2,207
	Nansenga	7,955	1,989
Mazabuka - Totals		**136,197**	**34,049**
Monze	Bweengwa	17,032	4,769
	Choongo West	7,470	2,092
	Hatontola	14,608	4,090
	Keembe	11,579	3,242
	Malundu	5,504	1,541
	Mayamba	6,254	1,751
Monze - Totals		**62,447**	**17,485**
Namwala	Namwala Central	6,154	2,031
	Baambwe	1,937	639
	Maala	4,681	1,545
	Kantengwa	5,789	1,910
	Chitongo	4,130	1,363
	Mbeza	2,866	946
Namwala - Totals		**25,557**	**8,434**

Siavonga	Simaamba	3,457	968
	Nanyangwe	2,182	611
	Sinadambwe	3,412	955
	Ibbwe munyama	3,908	1,094
	Kariba	11,837	3,314
	Ngombe Illede	9,827	2,752
Siavonga - Totals		**34,622**	**9,694**
Sinanzongwe	Malima	1,147	367
	Nkandabwe	1,264	404
Sinazongwe - Totals		**2,411**	**772**
Western Province			
Lukulu	Mbanga	4,682	2,201
	Mwito	6,466	3,039
	Kangoti	4,578	2,152
	Dongwe	2,500	1,175
	Kawaya	2,290	1,076
	Kashizi	5,872	2,760
	Lutembwe	2,591	1,218
	Mitete	3,479	1,635
	Nyaala	6,237	2,931
Lukulu - Totals		**38,696**	**18,187**
Sesheke	Mwandi	5,062	1,063
	Kalobolelwa	3,742	786
	Imusho	4,371	918
	Machile	7,936	1,667
Sesheke - Totals		**21,111**	**4,433**
TOTAL - All 32 Districts		**1,090,902**	**276,223**

6.6. Table Showing Team Composition and Districts Assessed

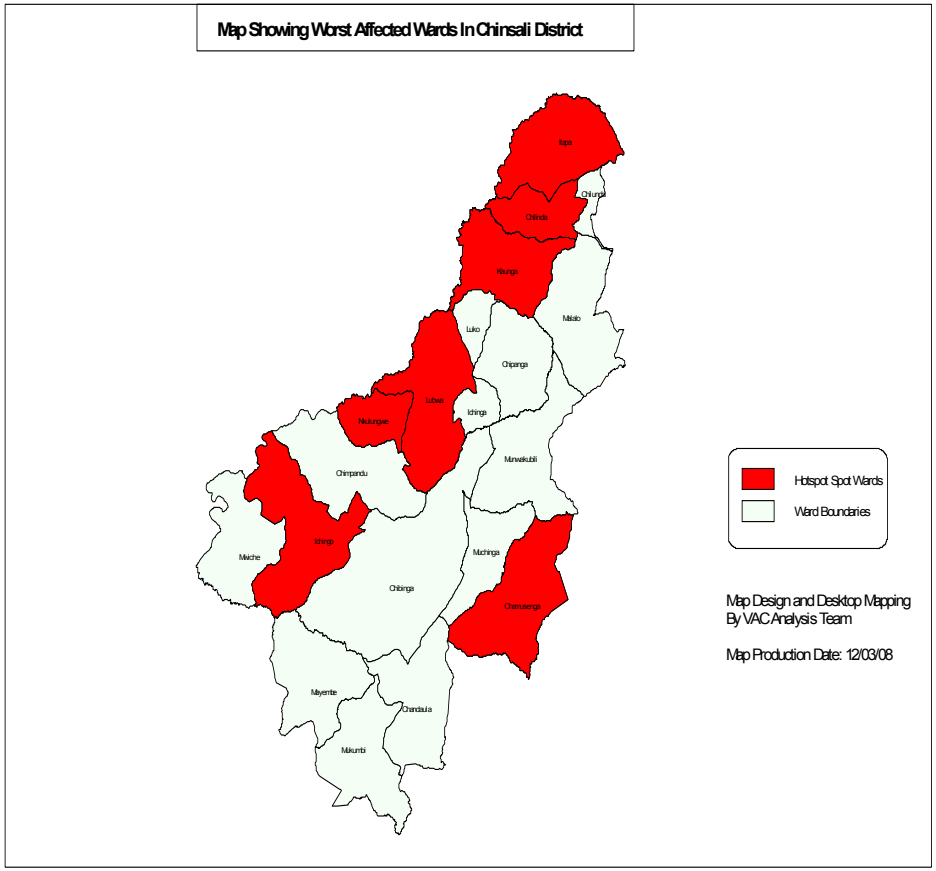
6.6.1. Teams for First 19 districts to be assessed

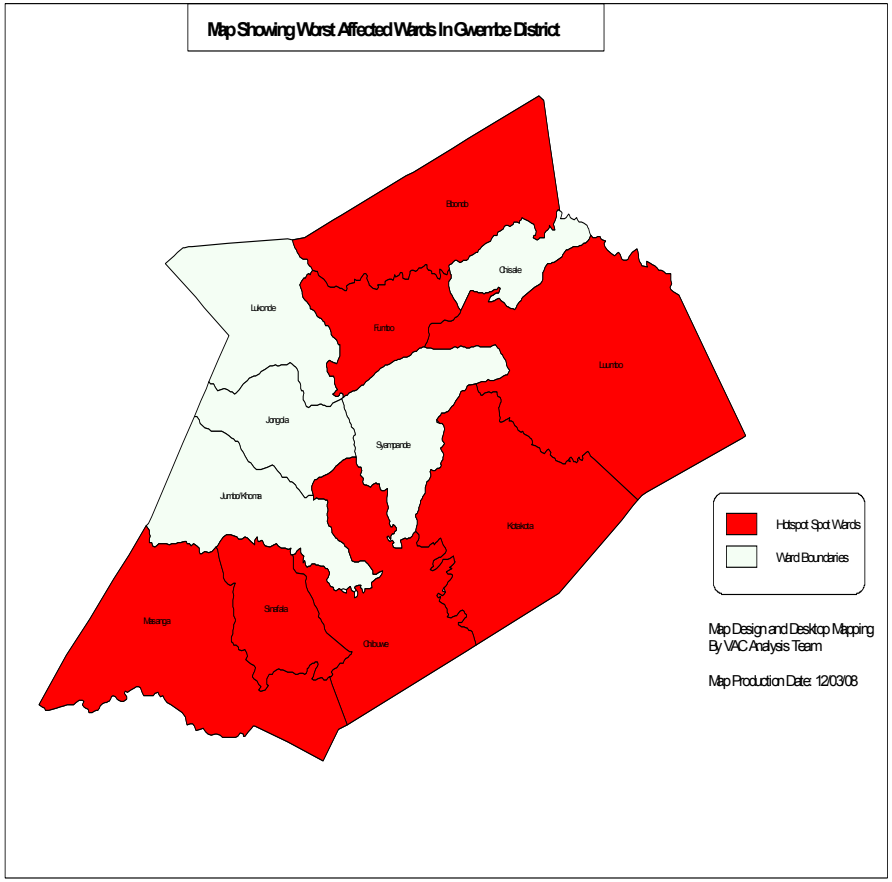
TEAM	PROVINCE	NO. OF DISTRICTS	TEAM COMPOSITION
1	Western, Southern and Central	Mumbwa, Itezhi-tezhi, Lukulu	**Team Leader: Sibajene Munkombwe - LWF** **Team Members:** Mercy Mbewe – ZRDF, Lyton Kanowa – MLGH **District Staff:** **Itezhi tezhi:** Chembo E. M (Council), T. Mainza, B.S Shaluwe, K. Liambeal **Mumbwa:** J. Miti (Council), Shamonga S **Lukulu:** Mufaya Malamo (DEBS), Chrispin Kasemuka (Local Government)
2	Southern Province	Sinazongwe, Monze, Kazungula	**Team Leader: Alfred Daka - WFP** **Team Members:** Patricia Sakala – NFNC, Annie Sampa Kamwendo **District Staff:** **Kazungula:** Josephine Mutale (MCDSS) Kantu Kantu (MACO) **Sesheke:** Imataa Musialela (MACO), M. Nambwalu **Sinazongwe:** S. Nasser (WVI), M. Ndhlovu (MACO) **Monze:** P.S. Malala (MOH), P. Handongwe (MACO)
3	Lusaka and Southern Province	Kafue, Siavonga, Gwembe	**Team Leader: Esnart Makwakwa – DMMU** **Team Members:** Victor Bupe – MET, Dorothy Namuchimba – UNICEF **District Staff:** **Kafue:** Mr. Malambo (Kafue Municipal Council) **Siavonga:** Alexander Kasenzi (Harvest Help Zambia) **Gwembe:** Mr. Maimbo (Department of Water Affairs)
4	Southern Province	Mazabuka, Namwala,	**Team Leader: Meetwell Cheelo – LDHMT** **Team Members:** Sina Luchen – FAO, Muna Sikaulu – UNICEF, Namwiinga Mumbi– UNFPA **District Staff:** **Mazabuka:** Mr. Chiinda (D.C), Mr.Siakunda (DAO), Mr. Ng'andu, Mr Mushabati (MOH) **Namwala:** Mr. Mbozi (MACO), Mr. Sianjase (DAO), Mr. Wamunyima (ZP), Mr. Musenge (Town Clerk)
5	Central	Kabwe, Mkushi	**Team Leader: Oscar Silembo – DWA** **Team Members:** Douglas Mwasi- C-FAARM, Chris Lungu – UNICEF **District Staff:** **Kabwe:** P. Nawakwi (Secretary DMMU), H. Kabwe (C.E.O), K. Zimba (DACO) **Mkushi:** Chiluba Wabalika (DACO), L. Chibuye (DAO), Bernanrd Nkote (Ag/DDPO)
6	Eastern	Lundazi, Luangwa, Mambwe	**Team Leader Lyson Mbewe – ZRDF** **Team Members:** Maxwell Muteteka – NAC, James Simasiku – UNICEF **District Staff :** **Lundazi:** D. Munani, D. Kamanga **Mambwe:** N. Msozi (MCDSS) **Luangwa:** W. Nyirenda (MCDSS)
7	North Western	Chavuma, Zambezi	**Team Leader: Kebby Mutale – WFP** **Team Members:** Sandie Sikazwe – CARE, Robert Mbumba – IOM **District Staff:** **Chavuma:** O. Mwelwa, Banda Kenani, G. Kapwepwe **Zambezi:** George Mwinda, B. Mukelabayi, E. Shindanyi

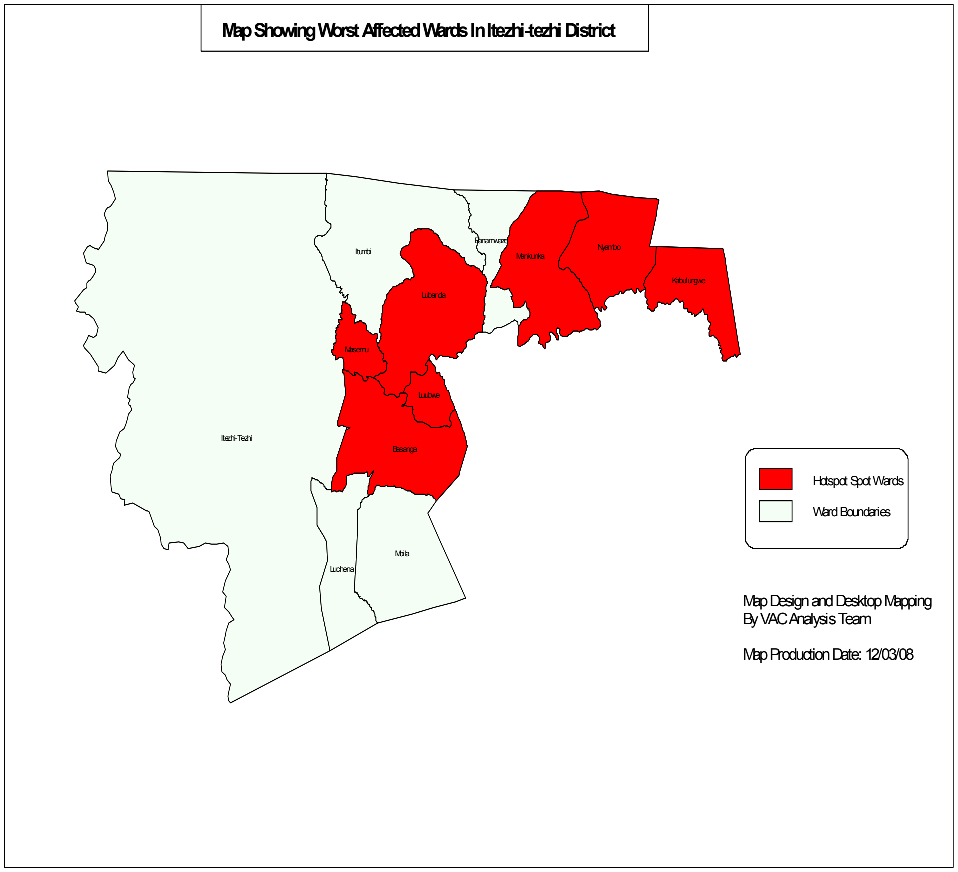
6.6.2. Teams for Second 13 districts to be assessed

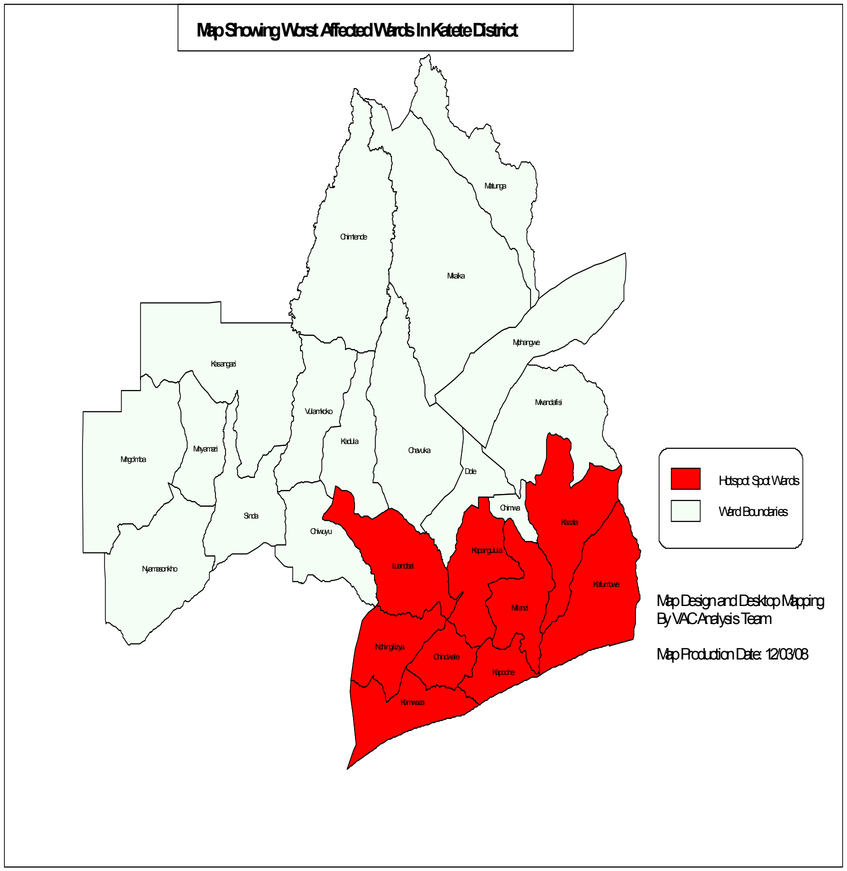
TEAM	PROVINCE	NO. OF DISTRICTS	TEAM COMPOSITION
1	Eastern	Petauke, Katete and Chadiza	**Team Leader: Meetwell Cheelo-LUDHMT** **Team Members:** Jenipher Sakwiya – WFP Gershom Musenge-CSO **District Staff:** **Chadiza:** Mr. M. Katundu (DIO) **Petauke:** Mr. J. Cheelo (MACO), Mr. M. Ngambilani (Catholic Church) **Katete:** Mr. G. Siatwinda (MACO), Mr. V. Siame (MACO), Mr. M. Muwowo (Dep. Dir. of Works)
2	Eastern and Lusaka	Nyimba and Chongwe	**Team Leader: Anderson Banda – DMMU** **Team Members:** Sandie Sikazwe-CARE, Davis Langeni - MET **District staff:** **Nyimba:** Mr. J. Zulu–DWA, Mr. A. Nkhoma-ZAWA **Chongwe:** Mr. Chongo – Dir. of Works
3	North-Western	Kabompo and Mufumbwe	**Team Leader: Ireen Ngulube - NFNC** **Team Members:** Elizabeth Siwawa –MET Katie Bwalya - UNFPA **District Staff:** **Mufumbwe:** Sichalwe M. (MOH) **Kabompo:** Kalimukwa (MOH)
4	Northern and Central	Chinsali, Milengi and Chibombo	**Team Leader: Chitalu Zimba- FAO** **Team Members:** Bwalya B. Bwalya – NFNC, Mercy Mbewe - ZRDF **District Staff:** **Chibombo:** Mr. K. Sinyangwe (MACO) Mr. K.G. Mfune (OP) **Chinsali:** Mr. M. Seuka (Office of the MP) **Milengi:** Mr. B. Mulenga (MOH), Mr. P. Nkandu (Milengi Council)
5	Copperbelt and Lusaka	Lusaka, Ndola and Kitwe	**Team Leader: Lyson Mbewe –ZRDF** **Team Members:** Mwanalushi Sikundu – CSO Namwinga Bubala Mumbi - UNFPA **District Staff:** **Lusaka:** Cynthia Chilufya (MCDSS) **Ndola:** Mrs. Mulesu C. (KDHMT) **Kitwe:** Esnart Simwanza (Director of Planning)

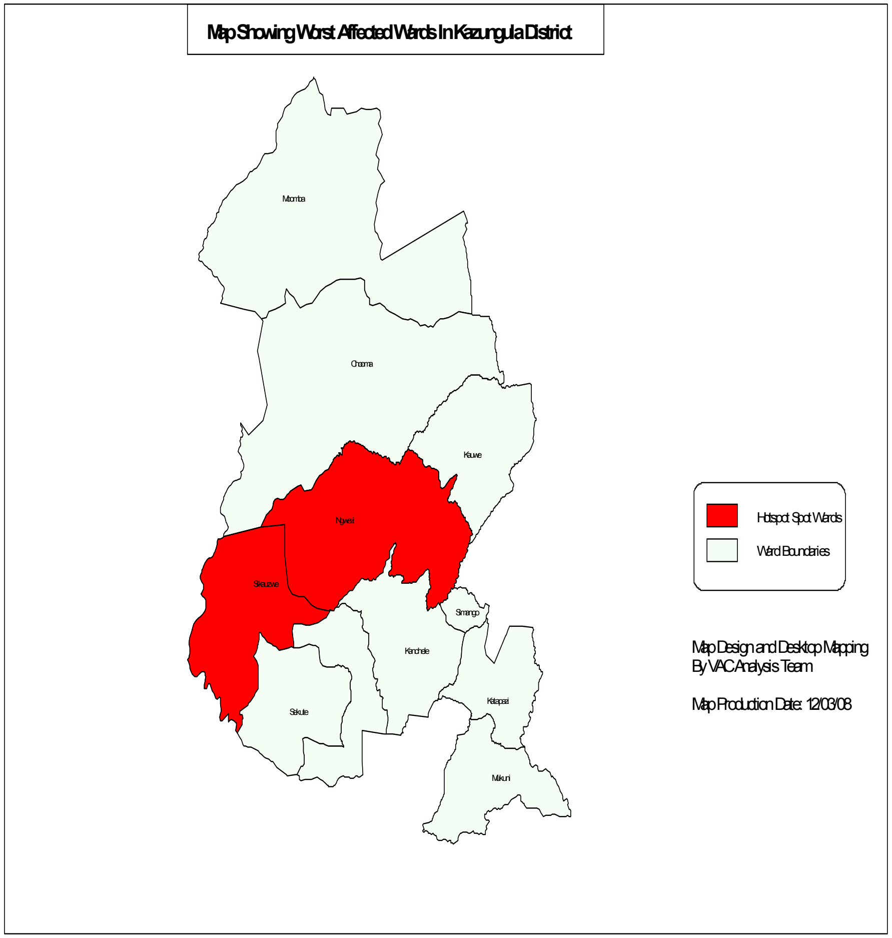
6.7 District Maps showing Affected Wards

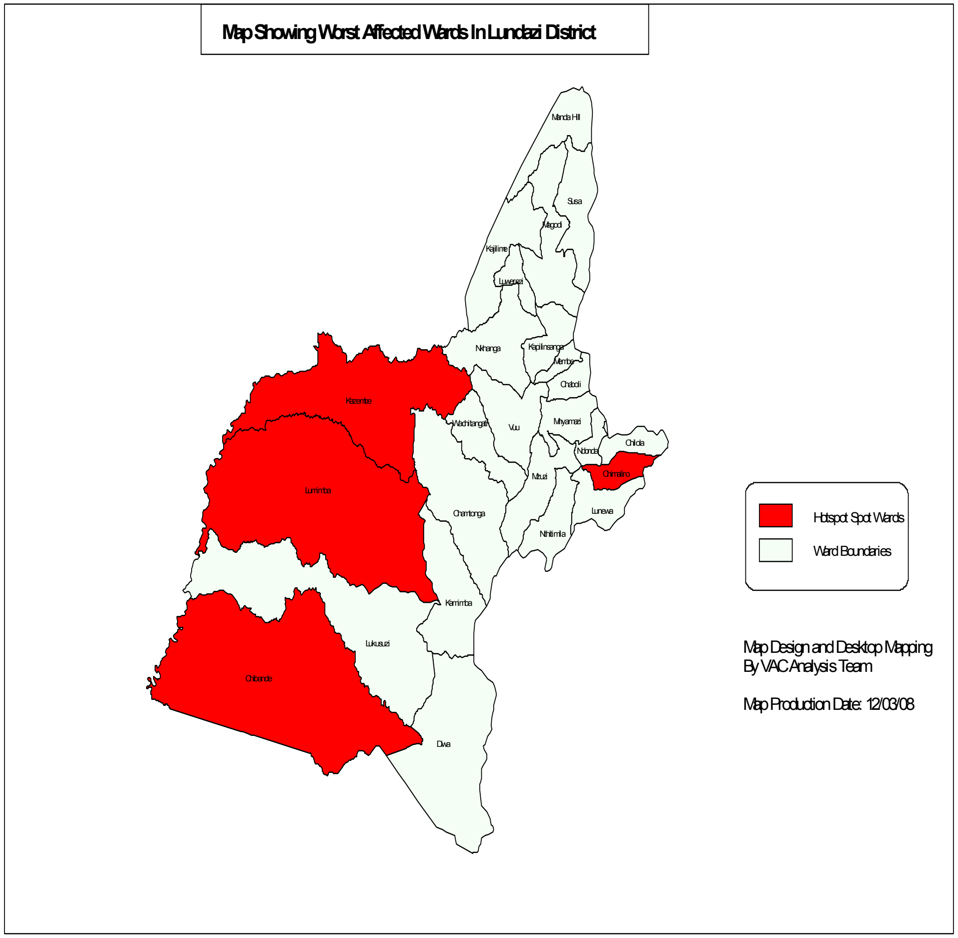


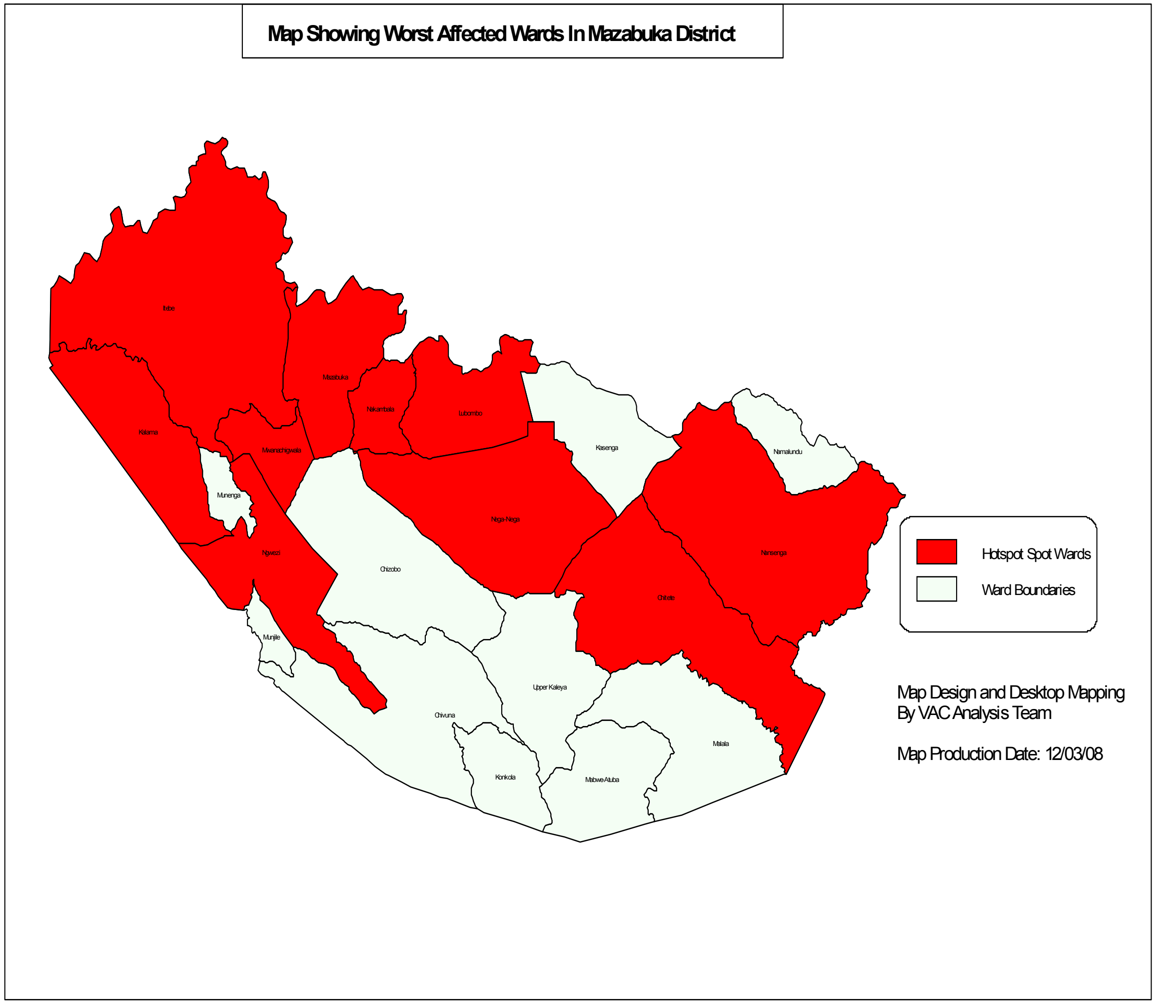


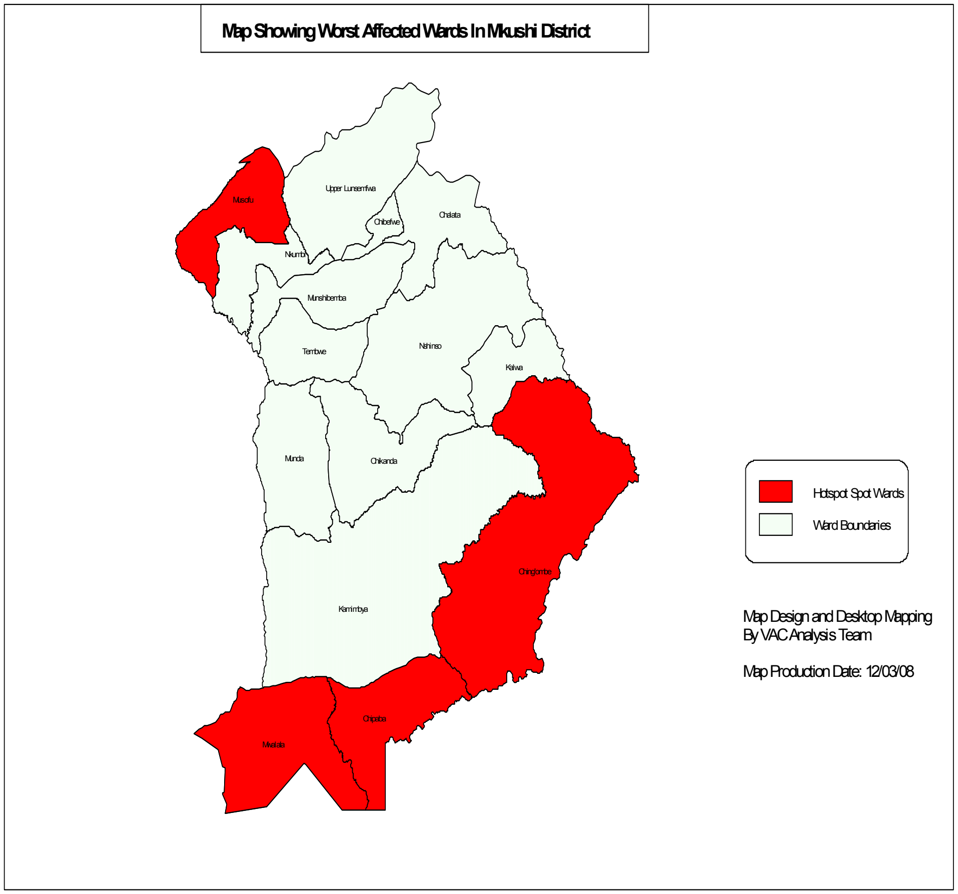

Map Showing Worst Affected Wards In Itezhi-tezhi District
Itumbi
Banamwaze
Mankunka
Nyambo
Kabulungwe
Lubanda
Masemu
Luubwe
Basanga
Itezhi-Tezhi
Luchena
Mbila
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

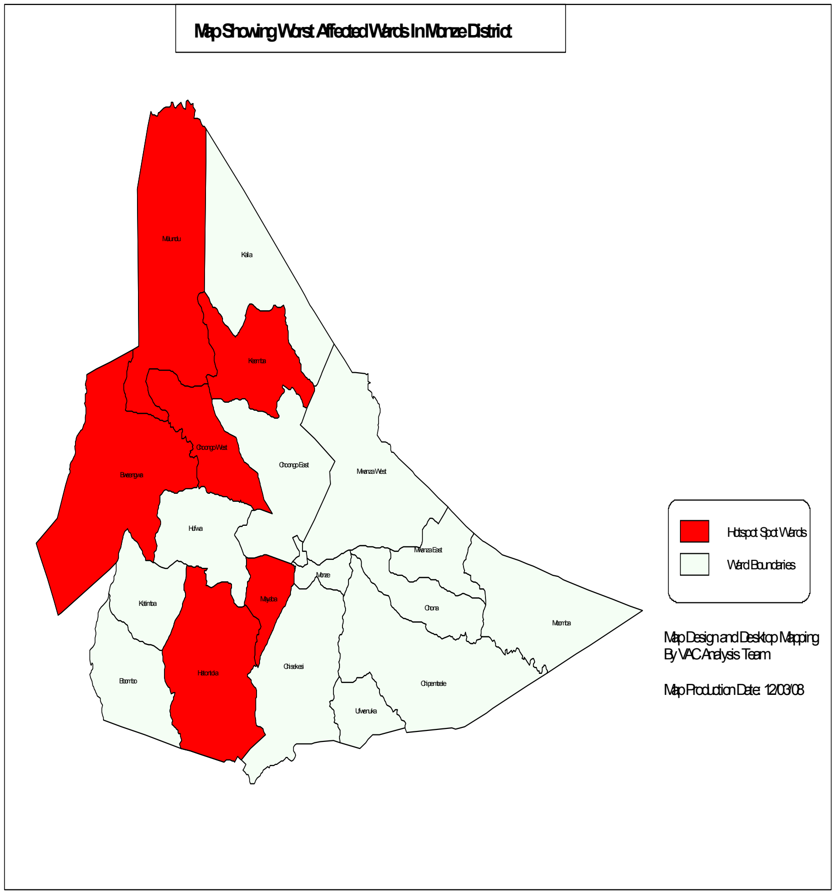

Map Showing Worst Affected Wards In Katete District
Matunga
Chimtende
Mkaika
Mphangwe
Kasangazi
Mwandafisi
Vulamkoko
Kadula
Chavuka
Mngolmba
Mnyamazi
Dole
Sinda
Chiwuyu
Chimwa
Kazala
Nyamasonkho
Kapangulula
Luandazi
Kafumbwe
Mlanzi
Nthinglizya
Chindwale
Kapoche
Kamwaza
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

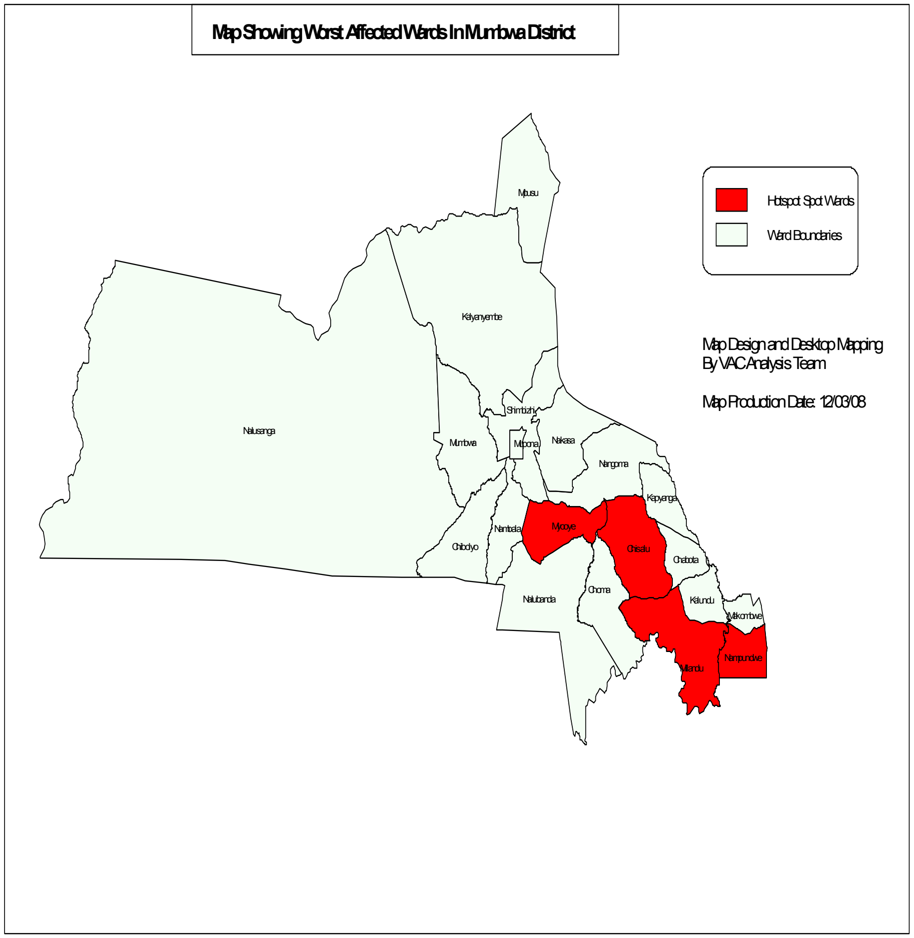

Map Showing Worst Affected Wards In Kazungula District
Mtomba
Chooma
Kauwe
Ngwezi
Sikauzwe
Simango
Kanchele
Katapazi
Sekute
Mukuni
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

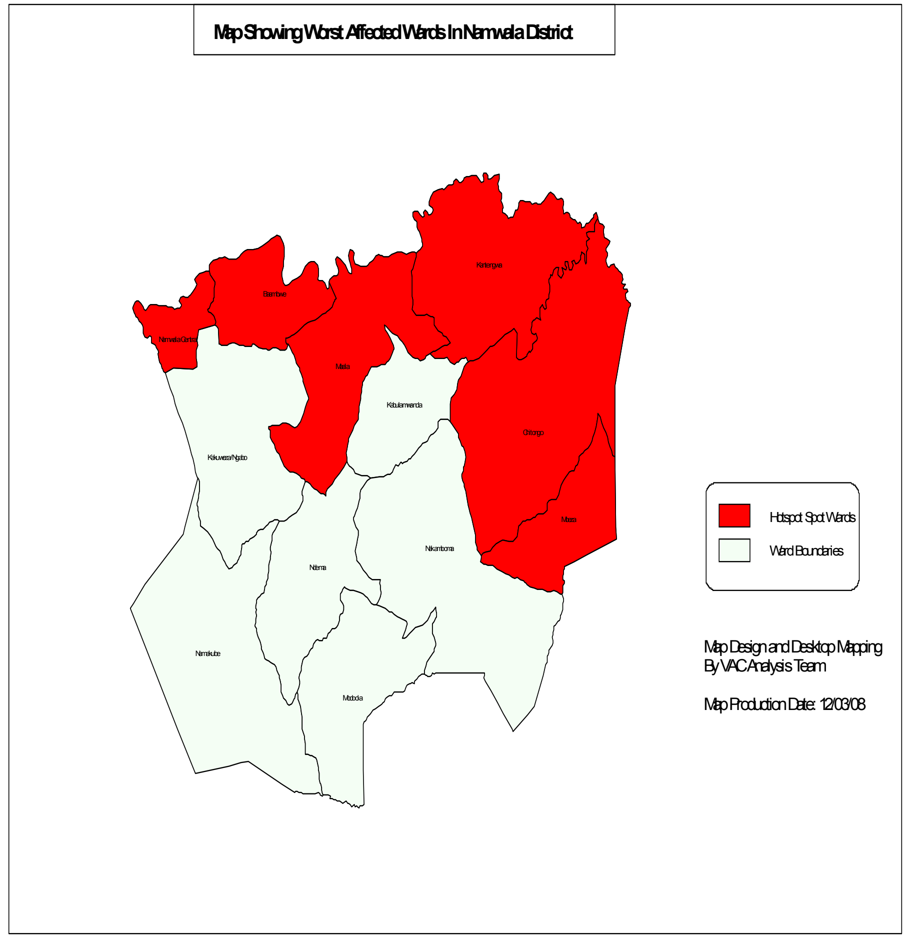

Map Showing Worst Affected Wards In Lundazi District
Manda Hill
Susa
Magodi
Kajilime
Luwerezi
Nkhanga
Kapilinsanga
Membe
Chaboli
Kazembe
Wachitangachi
Vuu
Mnyamazi
Ndonda
Chilola
Chimaliro
Mzuzi
Lumimba
Chamtonga
Lunewa
Nthitimila
Kamimba
Lukusuzi
Chibande
Diwa
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

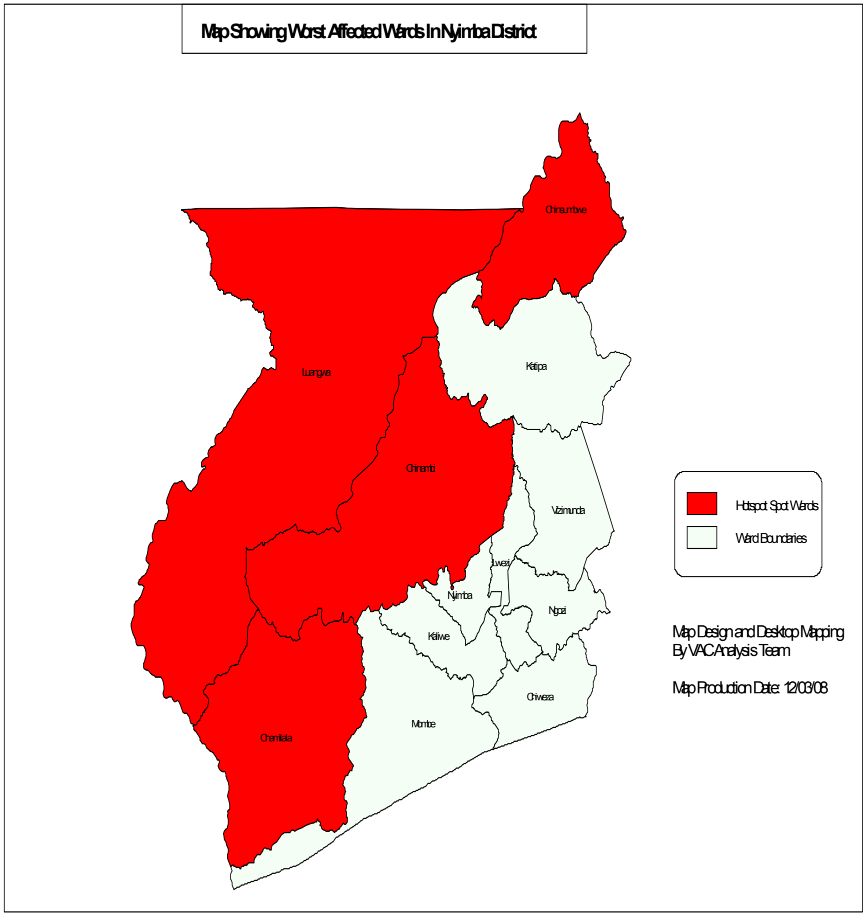

Map Showing Worst Affected Wards In Mazabuka District
Itebe
Mazabuka
Nakambala
Lubombo
Kalama
Mwanachigwala
Kasenga
Namalundu
Munenga
Nega-Nega
Ngwezi
Chizobo
Nansenga
Chitete
Munjile
Upper Kaleya
Chivuna
Malala
Konkola
Mabwe Atuba
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

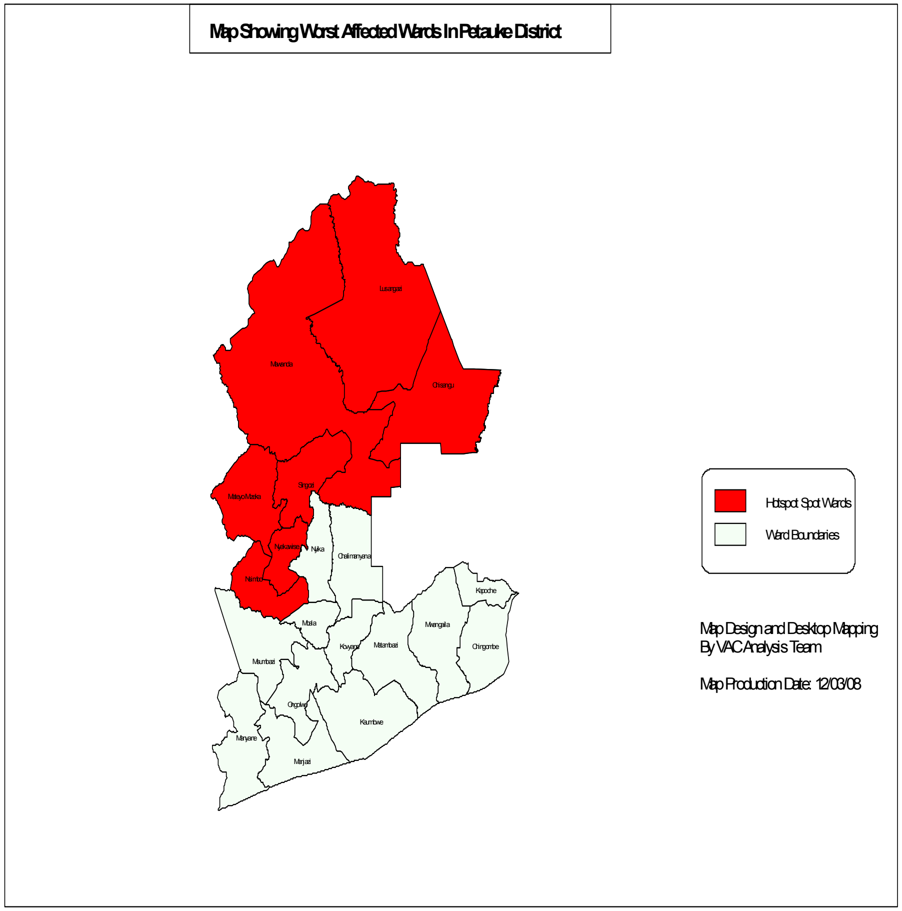

Map Showing Worst Affected Wards In Mkushi District
Upper Lunsemfwa
Musofu
Chibefwe
Chalata
Nkumbi
Munshibemba
Nshinso
Tembwe
Kalwa
Munda
Chikanda
Ching'ombe
Kamimbya
Chipaba
Mwalala
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08


Map Showing Worst Affected Wards In Monze District
Mulundu
Kaila
Keemba
Choongo West
Choongo East
Mwanza West
Bweengwa
Hufwa
Mwanza East
Monze
Katimba
Mayaba
Chona
Moomba
Chisekesi
Hatontola
Bbombo
Chipembele
Ufwenuka
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

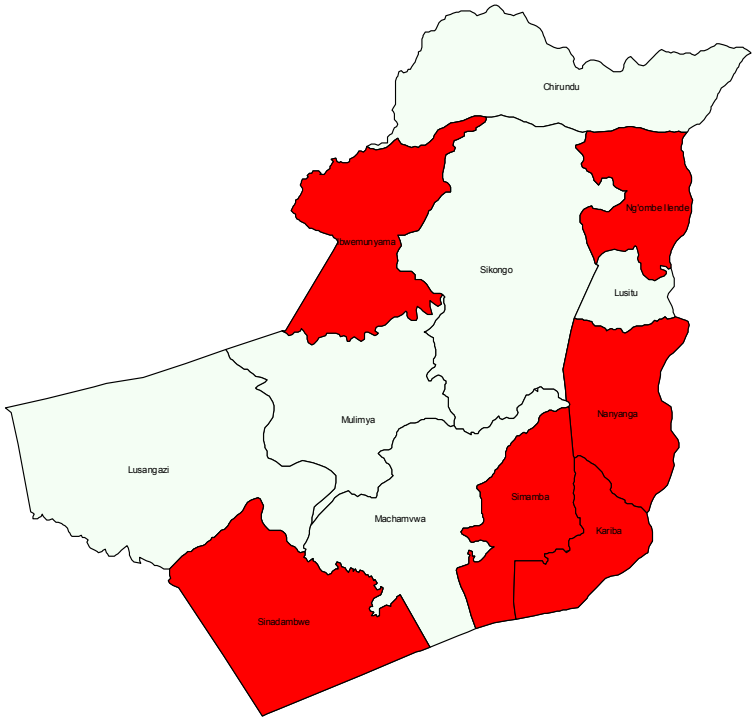

Map Showing Worst Affected Wards In Mumbwa District
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08
Mpusu
Kalyanyembe
Nalusanga
Shimbizhi
Mumbwa
Mpona
Nakasa
Nangoma
Kapyanga
Nambala
Myooye
Chisalu
Chibolyo
Chabota
Choma
Nalubanda
Kalundu
Makombwe
Milandu
Nampundwe


Map Showing Worst Affected Wards In Namwala District
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08
Kantengwa
Baambwe
Namwala Central
Maala
Kabulamwanda
Chitongo
Kakuweza/Ngabo
Moeza
Nakamboma
Ndema
Namakube
Mobola


Map Showing Worst Affected Wards In Nyimba District
Chinsumbwe
Luangwa
Katipa
Chinambi
Vizimunda
Lwezi
Nyimba
Ngozi
Kaliwe
Chiweza
Mombe
Chamilala
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08


Map Showing Worst Affected Wards In Petauke District
Lusangazi
Mawanda
Chisangu
Singozi
Mateyo Mzeka
Nyakawise
Nyika
Chalimanyana
Nsimbo
Kapoche
Mwangaila
Mbala
Kovyane
Matambazi
Chingombe
Msumbazi
Ongolwe
Kaumbwe
Manyane
Manjazi
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

Map Showing Worst Affected Wards In Siavonga District



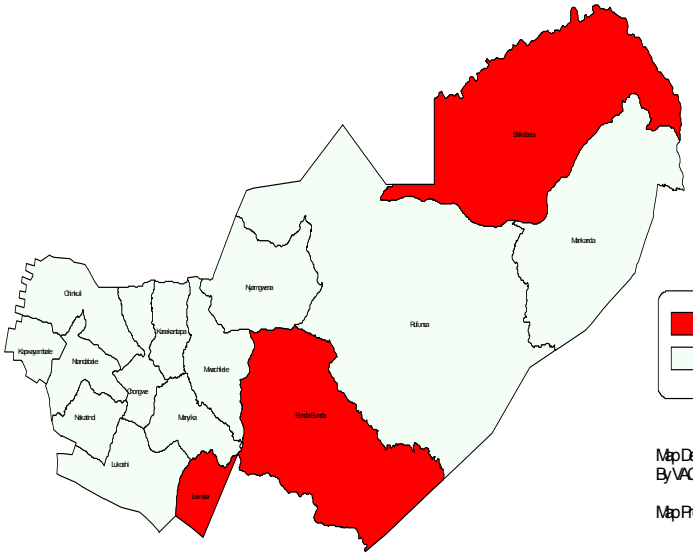
Hotspot Spot Wards

Ward Boundaries

Map Design and Desktop Mapping
By VAC Analysis Team

Map Production Date: 12/03/08

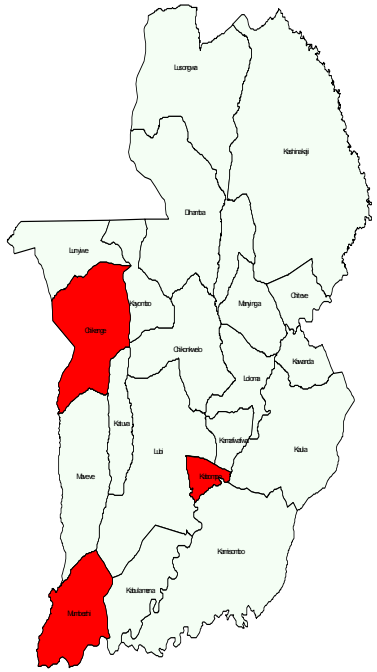
Map Showing Worst Affected Wards In Chongwe District



Map Design and Desktop Mapping
By VAC Analysis Team

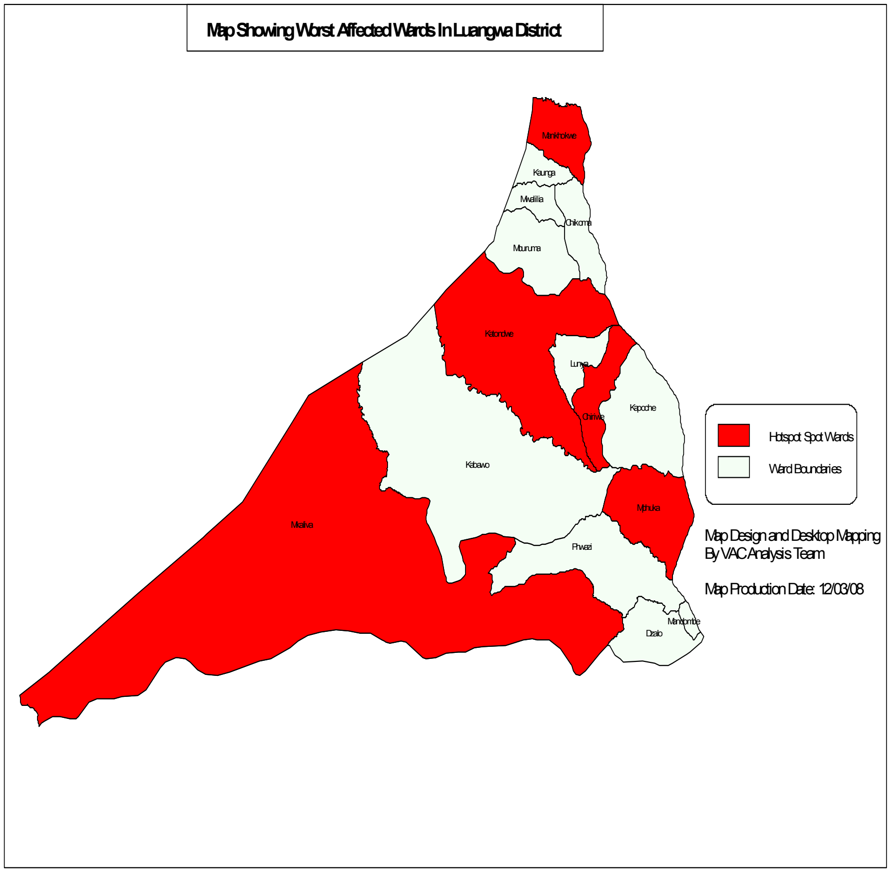
Map Production Date: 12/03/08

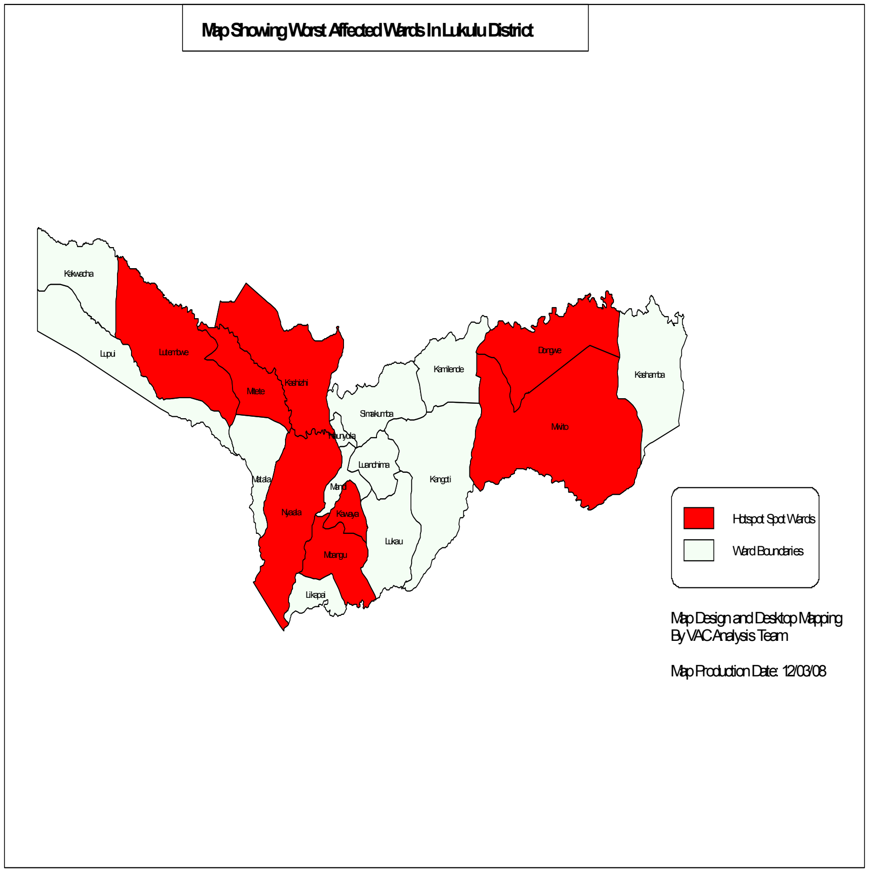
Map Showing Worst Affected Wards In Kabompo District



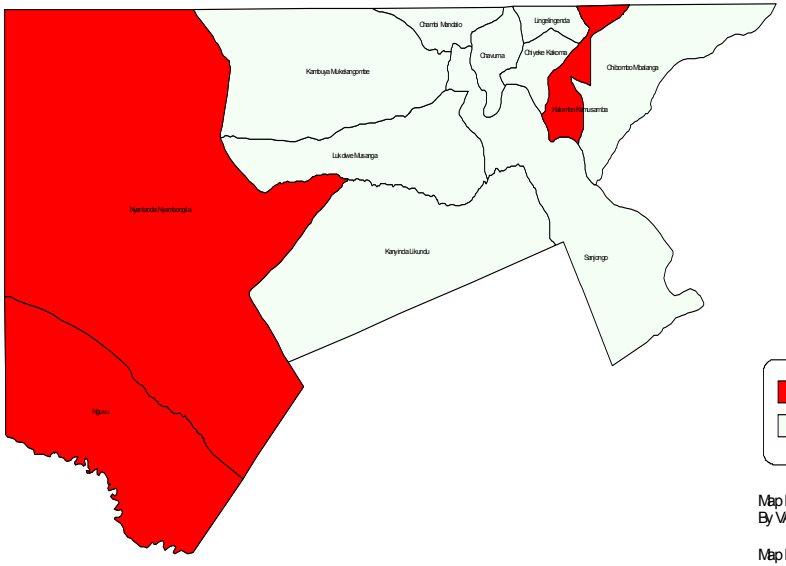
Map Design and Desktop Mapping
By VAC Analysis Team

Map Production Date: 12/03/08


Map Showing Worst Affected Wards In Luangwa District
Mankhokwe
Kaunga
Mwalilia
Chikoma
Mburuma
Katondwe
Lunya
Chiriwe
Kapoche
Kabawo
Mkaliva
Mphuka
Phwazi
Mandombe
Dzalo
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08


Map Showing Worst Affected Wards In Lukulu District
Kakwacha
Lupui
Lutembwe
Mitete
Kashizhi
Simakumba
Kamilende
Dongwe
Kashamba
Mwito
Luanchima
Kangoti
Matala
Mandi
Nyaala
Kawaya
Mbangu
Lukau
Likapai
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

Map Showing Worst Affected Wards In Chavuma District



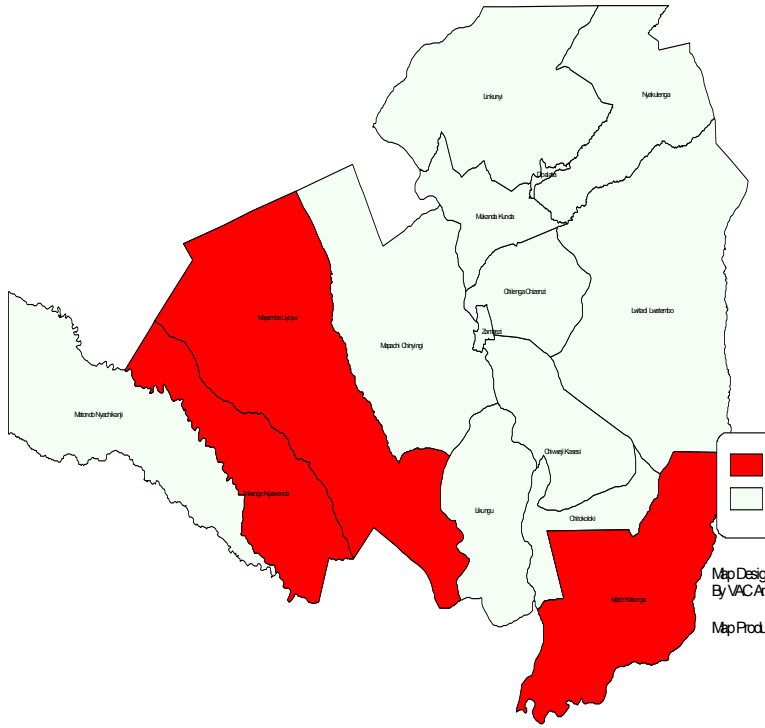
Hotspot Spot Wards

Ward Boundaries

Map Design and Desktop Mapping
By VAC Analysis Team

Map Production Date: 12/03/08

Map Showing Worst Affected Wards In Zambezi District

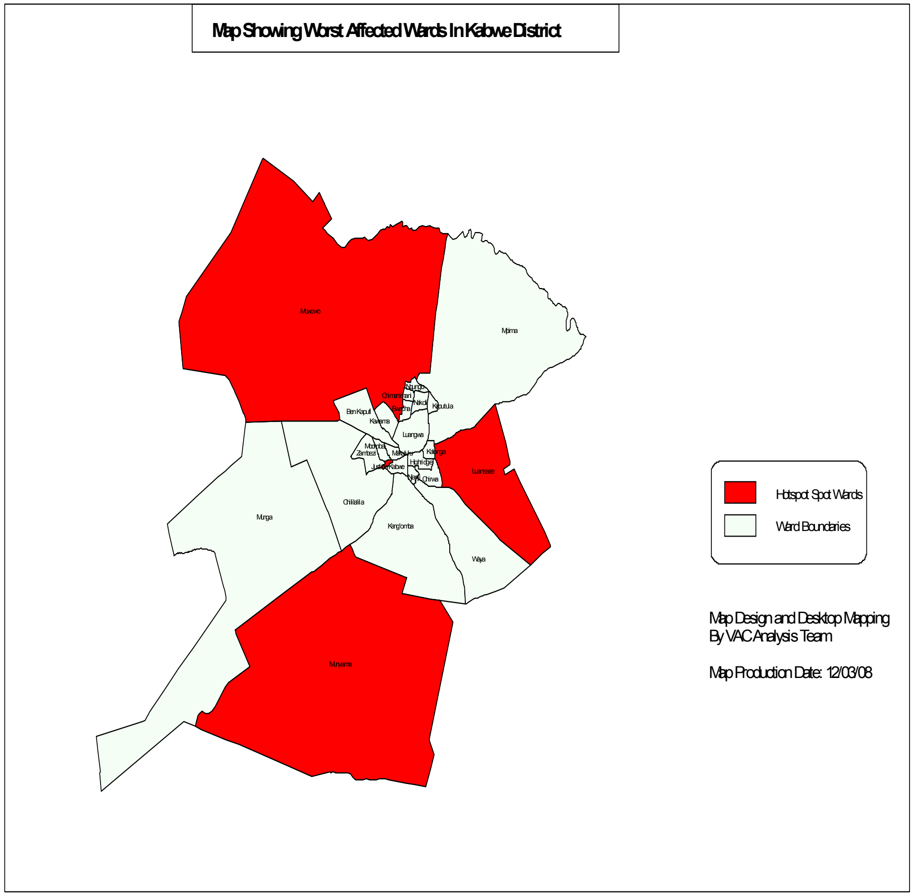


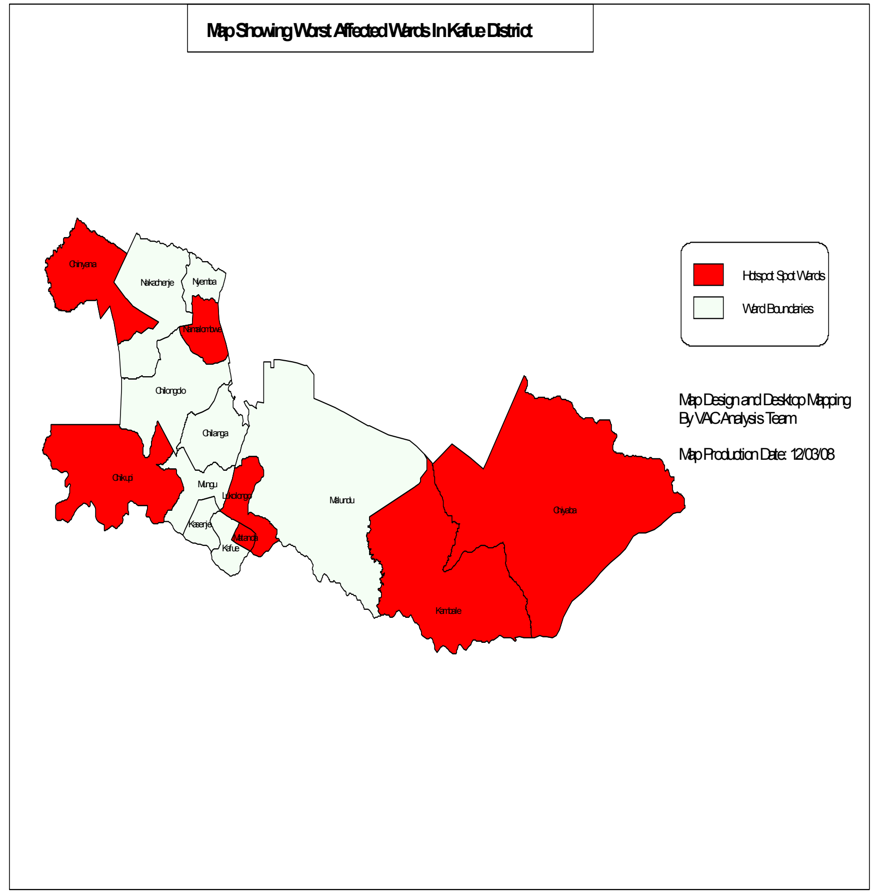
Hotspot Spot Wards

Ward Boundaries

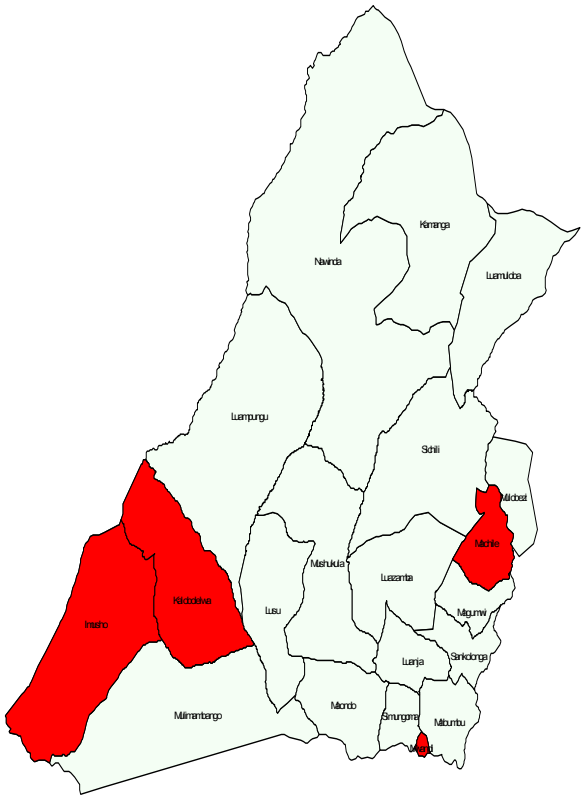
Map Design and Desktop Mapping
By VAC Analysis Team

Map Production Date: 12/03/08


Map Showing Worst Affected Wards In Kabwe District
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08


Map Showing Worst Affected Wards In Kafue District
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08

Map Showing Worst Affected Wards In Sesheke District



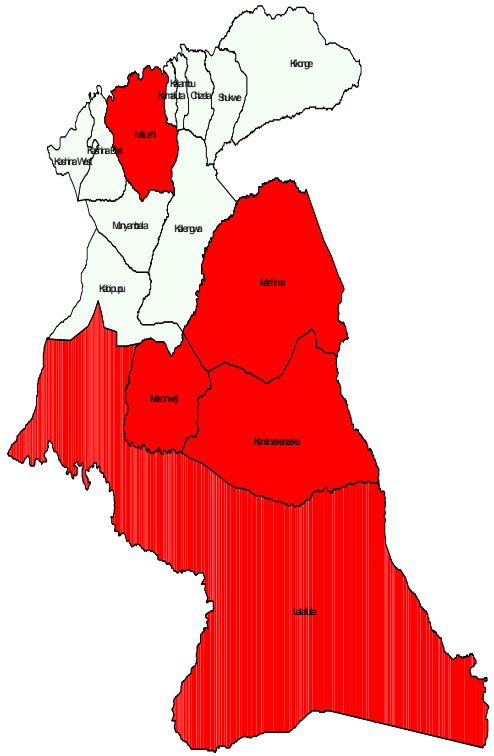
Hotspot Spot Wards

Ward Boundaries

Map Design and Desktop Mapping
By VAC Analysis Team

Map Production Date: 12/03/08

Map Showing Worst Affected Wards In Mufumbwe District

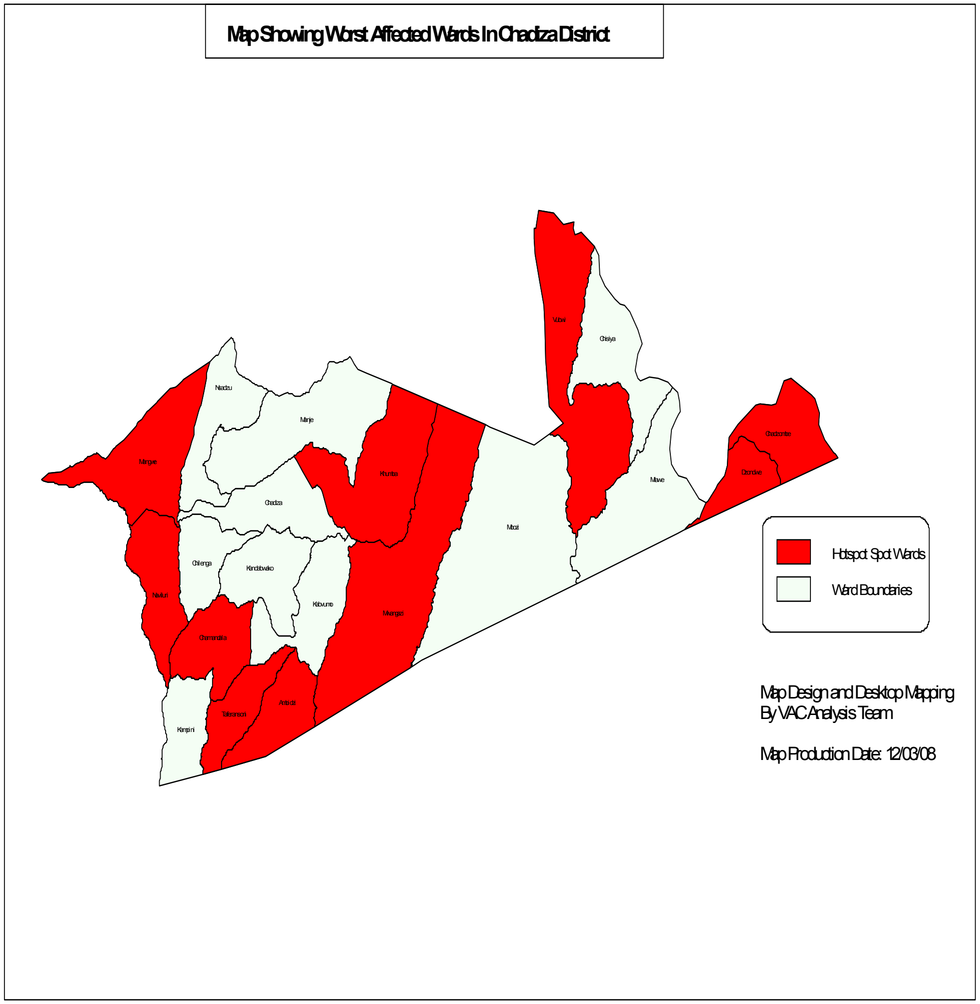


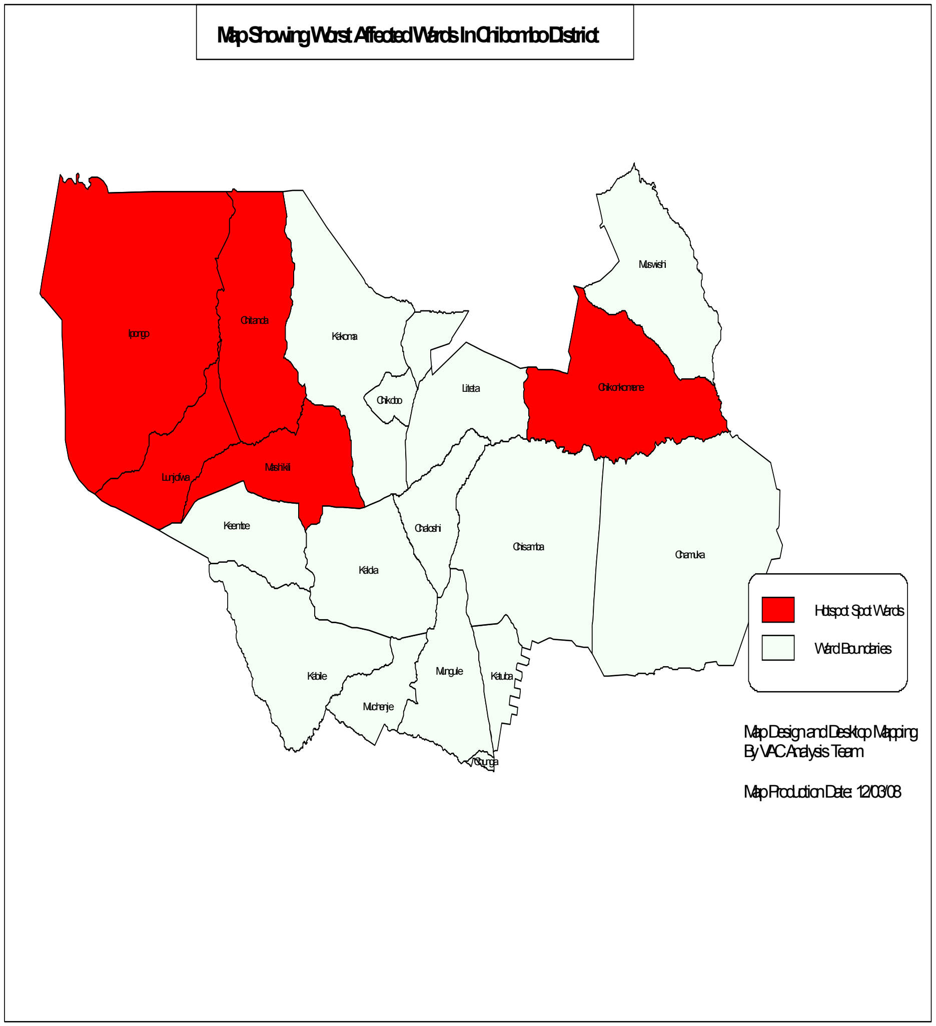
Hotspot Spot Wards

Ward Boundaries

Map Design and Desktop Mapping
By VAC Analysis Team

Map Production Date: 12/03/08


Map Showing Worst Affected Wards In Chadiza District
Vubwi
Chisiya
Nsadzu
Manje
Mangwe
Khumba
Chadzombe
Dzoncwe
Mlawe
Chadiza
Mbozi
Chilenga
Kandabwako
Naviluri
Kabvumo
Mwangazi
Chamandala
Taferansoni
Ambidzi
Kampini
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08


Map Showing Worst Affected Wards In Chibombo District
Muswishi
Ipongo
Chitanda
Kakoma
Chikobo
Liteta
Chikonkomene
Mashikili
Lunjofwa
Keembe
Chaloshi
Chisamba
Chamuka
Kalola
Kabile
Mungule
Katuba
Muchenje
Hotspot Spot Wards
Ward Boundaries
Map Design and Desktop Mapping
By VAC Analysis Team
Map Production Date: 12/03/08