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**BINDURA UNIVERSITY OF SCIENCE EDUCATION**

**DEPARTMENT OF GEOGRAPHY**



**TITLE OF THE PROJECT**

AN INVESTIGATION INTO THE IMPACTS OF HIV/AIDS ON FOOD SECURITY AND RURAL LIVELIHOODS. A CASE OF MUKUMBURA WARD 2, MT DARWIN DISTRICT.

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**DATE**

**2015**

**APPROVAL FORM**

The undersigned certify that they have read this dissertation and have approved its submission for marking after confirming that it conforms to the departmental requirements.

.....  
Supervisor

.....  
Date

## **DECLARATION**

I declare that this project is the best of my knowledge, my original work except where sources have been acknowledged. The work has never been submitted nor will it ever be, to any other university for awarding degree.

Student name.....

## **DEDICATION**

I dedicate this project to my late parents, Jephias Chivige and Tabeth Dhokwani for their lifelong lessons of selfless compassion.

“.....for God has plans for you.....”

## **ACKNOWLEDGEMENT**

I would like to sincerely thank my late parents, Mr Chivige and Mrs Chivige for their long life lessons. My family members and lovely sister Rutendo for their early teaching that life is not painless, scaling their own walls and leaving directions.

All special thanks to Mr. Mushore whom without this work would not be possible. Thanks for the faith and the room to grow the fundamentals ingredients of true education. I thank all the Geography department staff for sharing wisdom.

## **ABSTRACT**

HIV/AIDS has become a major concern globally as it affects different facets of a country's economy as well as household economics. It still remains an agenda and a problem in most developing countries including Zimbabwe. The objectives of this study were, therefore, to examine the effects of HIV/AIDS on food security and livelihoods, to assess efforts made in alleviating the adverse impacts of HIV/AIDS on food security and livelihoods and to identify challenges associated with efforts to minimise effects of HIV/AIDS on food security and livelihoods. The researcher used both qualitative and quantitative research methodologies with data collection methods which included administration of questionnaires, focus group discussions, observations and interviews. The study revealed that 72% of the community was vulnerable to food insecurity. Also the results indicated that people are using some mitigation strategies which include food aid, food for work, remittances and sale of livestock. These strategies are held back by challenges in the Ward which include poor service delivery by NGOs and Government departments and the involvement of poverty. The study recommended the address of labour shortage faced by households, developing or promoting existing labour saving technologies and production will be very useful, government and non government agencies to incorporate HIV/AIDS issues into their core business and agricultural extension should target households who have lost knowledge/skills through death of an adult.

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### **Acronyms**

AIDS	Acquired Immune Deficiency Syndrome
CBO	Community Based Organization
DDP	District Development Plan
FCND	Food Consumption and Nutrition Division
FHH	Female Headed households
HBC	Home Based Care
HIV	Human Immune Deficiency Virus
PLWHA	People Living With HIV/AIDS
NGO	Non-Governmental Organization
UNAIDS	Joint United Nations Programme HIV/AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
VAC	Vulnerability Assessment Committee
WFS	World Food Summit
WHO	World Health Organisation

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

This chapter explores the background of the study, the statement of the problem, the purpose why the study is undertaken, research questions and significance of the study, assumptions, limitation, delimitation and definition of terms used in the research and summary of the chapter.

#### 1.2 Background of the study

HIV and AIDS has become a global crisis, affecting all levels of society (Husson, 1990). HIV and AIDS emerged in the 1980s as the most terrifying epidemic of modern times likened to the Black Death or bubonic plague (Jackson, 2002). The New vision (1993) in Iliffe (2006) quoted the chief epidemiologist in Kampala, Uganda who said that *“it all started as rumour ..... then we found we were dealing with a disease. Then we realised that it was an epidemic and now we have accepted it as a tragedy”*. Decades after clinical evidence of AIDS was reported it has become the most devastating disease human kind has ever faced , it is now the leading cause of death in Sub-Sahara and the fourth biggest killer worldwide ( Jackson, 2002).

Southern Africa is one of the regions mostly severely affected by HIV/AIDS. Although HIV/AIDS epidemic started late in Southern Africa, it has been explosive, reaching prevalence rates of above 30 percent in some countries such as Botswana and Swaziland. In the midst of many other challenges, Southern Africa has the world’s worst HIV epidemic, and indeed some analysts suggest that all developmental activities in the region should be seen through an HIV/AIDS lens.

With around 15% of the population living with HIV and AIDS, Zimbabwe is experiencing one of the harshest HIV and AIDS epidemics in the world (UNAIDS, 2011). In a country that has had a tense political and social climate over past few decades; it has been difficult to respond to the crisis. However, though Zimbabwe has had the highest HIV and AIDS epidemic, it was one of the first African countries to witness high drop of HIV prevalence. It is believed that when AIDS was first reported in 1985, by the end 1980s, 10% of the population were thought to be infected

with HIV (UNAIDS, 2005). This figure rose dramatically in the first half of the 1990s ,peaking at 26.5% in 1997 (UNGASS, 2010), but since this point the HIV prevalence is thought to have declined, making Zimbabwe one of the first nation to witness such a trend.

### **1.3 Justification of the study**

The assumption underlying this study is that HIV/AIDS probably has a severe impact on household food security. According to Ministry of Finance and Economic Planning (undated, cited by NAC, March 2014), government funds spent on HIV/AIDS exceeded the equivalent of 69 million US dollars, with more than 40 million US dollars mobilized from development partners. From how it has affected the government budget to date and from the statistics of deaths in the economically active age group(s), it can be deduced that AIDS is a severe problem, of which the impact on household food security needs to be investigated. The illness due to HIV/AIDS of a breadwinner may lead to loss of income or to reduced labour productivity, and hence reduced purchasing power for the entire household, leading to a lack of household food security.

With the rise of HIV/AIDS in Zimbabwe, some people who used to be food secure may become food insecure. The spread of the pandemic in rural areas, with the resulting changes in labour availability and productivity, is therefore expected to have a negative effect on food production and consumption. As household members are affected and become ill, household income is expected to decrease. Food insecurity will therefore rise, also in rural areas and households. Even in cases where food is available at national levels, food insecurity may remain a problem for specific households due to their low income and/or skewed income distribution.

It is therefore necessary to investigate the extent to which household food insecurity problems are due to the pandemic. Although many efforts have been made at community level, specifically with regard to medical assistance and care for those affected, minimal research has been undertaken to establish the impact of the pandemic with regard to food insecurity at household level. Most of the research that has been undertaken in Zimbabwe has also been skewed towards establishing the number of people affected, for purposes of medical assistance (NAC, 2001; Zimbabwe Government).

#### **1.4 Statement of the problem**

In accordance with NAC (2001) stated that the first case of HIV/AIDS reported in Zimbabwe was in 1986. Since then, the country has experienced a wide spread of this pandemic and a sizeable population has been affected to date. In its short history, the disease has moved from being only a health problem to being an economic problem. There has been a considerable increase in HIV/AIDS prevalence rates in Sub-Saharan Africa with an estimated 34 million people affected since the beginning of the epidemic, (UNAIDS, 2000). High prevalence rate of HIV/AIDS have an impact on the agriculture production as it affects the supply of labour, income and capital. This has led the researcher to undertake an in-depth study on the impacts of HIV/AIDS on food security and rural livelihoods in Ward 2 of Mt Darwin.

#### **1.5 Aim**

The aim of this project is to assess the impacts of HIV/AIDS on food security and livelihoods in Ward 2 of Mt Darwin District.

#### **1.6 Objectives**

- To examine the effects of HIV/AIDS on food security and livelihoods.
- To assess efforts made in alleviating the adverse impacts of HIV/AIDS on food security and livelihoods.
- To identify challenges associated with efforts to minimise effects of HIV/AIDS on food security and livelihoods.

#### **1.7 Research Questions**

- How is HIV/AIDS affecting food security and rural livelihoods in Ward 2, Mt Darwin?
- To investigate the possible strategies which can be used to reduce the impacts of HIV/AIDS in rural agricultural development?
- What are the challenges encountered in reducing the impacts of HIV/AIDS on food security and livelihood.

## 1.8 Hypothesis

The hypothesis is that AIDS is a shock that impacts all classes of assets. Human capital is lost through chronic illness and death of prime age labour as well as loss of skills and knowledge transfer. Financial capital is undermined due to: i) increased health care & funerals expenditure, ii) reduced income (through loss of productivity), iii) decrease in assets ownership (assets are sold to make up for lost income). Social capital is damaged as structures at the household and community level are affected. Physical and natural capital is damaged through loss of labour which affects the ability to farm and maintain common property.

## 1.9 Definition of terms

1. **Food Security** is defined by FAO (1996) as a situation whereby all people at all times have physical and economic access to sufficient, safe and nutritional food to meet their dietary needs and food preferences for an active and healthy life.
2. **Vulnerability** of rural households to HIV and AIDs is the capacity of households to cope with, resist and recover from HIV and AIDs infection. (Oyekule, 2004)
3. **Sustainability** refers to specific characteristics and values in relation to the way people carry out their activities as well as utilize assets and resources. Households have sustainable livelihoods when they can cope with, and recover from shocks and stresses. Livelihood sustainability entails that the natural resource base is maintained and capabilities are enhanced now and for future generations (UNDP, 2002).
4. **Shocks** are sudden events, which undermine household livelihoods. These include loss of employment, death of an economically active household member, as well as impact of natural hazards like drought, floods or extreme weather conditions that are often made worse by mismanagement of the environment. Stresses are ongoing pressures, which face households and individuals. They include long-term food insecurity and limited access to essential services and facilities. The degradation of the natural resource base is another stress that may force people to travel long distances for fuel and other natural resources (de Satge, 2002).



### **1.10 Limitation of the Study**

The contribution that this study makes to the literature on the impact of HIV/AIDS on agriculture and household food security in Zimbabwe is expected to be significant, yet limited, due to the following limitations of the study itself:

1. The analysis was not carried out for the entire country but for one small village. This limits the representativeness of the results of this study to situations in other parts of the country.
2. The social stigma associated with HIV/AIDS may make it difficult for respondents/interviewees to provide information on the affected household members, whereas the need for health workers to maintain confidentiality may make it difficult for them to provide information. To reduce some of these limitations, interviewees were sourced from the country's CHBC programme.
3. Families being researched may behave differently or limit information they provide, knowing that they are being recorded.
4. The study focused on the impact of HIV/AIDS on household livelihoods, food procurement and agricultural production for subsistence purposes only. Also, the analysis was only centered on food security at the household level, with emphasis on access to food determined by the livelihoods (income/purchasing power) and agricultural production. Access and utilization are equally important in analyzing food security. However, in this study, the nutritional quality or the utilization of the food acquired was not analyzed.

### **1.11 Organisation of the study**

The study consists of five chapters. The first chapter focuses on the background of the study, statement of the problem, aims and objectives, assumptions, limitations of the study, delimitation of the study, definition of terms and the way the study is organised. Chapter two deals with the review of literature related to the study. The third chapter focuses on the research design and methods employed in the study. Chapter four outlines the findings of the research in the form of tables, graphs and pie charts and statistical information. Chapter five focuses on summary of findings, conclusion and recommendations. The next chapter reviews the literature related to the

study and identify the knowledge gap left by the other researchers which this study will be filling.

### **1.12 Summary**

This chapter gives an insight of what pushed the researcher to uncover more about the problem and discusses mainly the objectives, research questions, and assumptions, statement of the problem and definition of key terms before proceeding to chapter two.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter is going to look into the various writings by other scholars on the subject of the impacts of HIV and AIDS on food security and rural livelihoods. It is going to constitute theoretical framework, and views of other scholars or authors concerning the impacts of HIV and AIDS on food security.

#### **2.2 AIDS as a development Issue**

AIDS is not just a health problem though it is often presented as one (Loevinsohn et al, 2001:7). The UN Special Session on HIV/AIDS indicates that by killing so many people in the prime of their lives, AIDS poses a threat to development. By reducing growth, weakening governance, destroying human capital, discouraging investment and eroding productivity, AIDS undermines countries' efforts to reduce poverty and improve living standards (UN Fact sheet, 2001).

HIV/AIDS has a profound impact on growth, income and poverty. Over (1998), notes that the third major impact of the epidemic is on households and, in the aggregate on the extent and depth of national poverty. The UN estimates that the annual per capita growth, in half the countries of sub-Saharan Africa is falling by 0.5-1.2 percent as a direct result of HIV/AIDS. It is also projected that by 2010, per capita GDP in some of the hardest hit countries may drop by 8 percent and per capita consumption may fall even further (UN Fact Sheet, 2001).

#### **2.3 AIDS as a rural Issue**

One of the common characteristics of developing countries is the substantial dependence on agricultural production for food and income. The vast majority of people in developing countries lives and works in rural areas. Over 65 percent are rural based, compared to less than 27 percent in economically developed countries (Todaro, 1997). HIV/AIDS, which was once an urban problem, has moved to rural areas. Chief David Lingazwe of Amambisi Tribal Authority in South Africa said the AIDS epidemic had taken everyone by surprise. "...We thought it was a

town thing, we didn't know it would kill our families like this..." (IRIN-SA 2001 quoted in Steely and Pringle, 2001).

In Zimbabwe, the UNDP observes that the rate of HIV infections is rising faster in rural areas than in urban areas where it is stabilizing (UNDP, 2001). The Food and Agricultural Organization (FAO, 2001) reports that HIV/AIDS was no longer restricted to cities. The disease was spreading with alarming speed into rural areas and affects the farming population, especially people in their most productive years (ages 15 to 45). More than two-thirds of the population in 25 most affected African countries lives in the countryside.

#### **2.4 Food Security: A Theoretical Perspective**

A review of the literature reveals a general shift in agricultural policy of several countries from the concept of self-sufficiency, where countries made an effort to produce enough food to feed their people, to that of food security. The push towards self-sufficiency was less successful as countries (especially those in the SADC region) were unable to produce enough to feed their people (Van Rooyen and Sigwele, 1998).

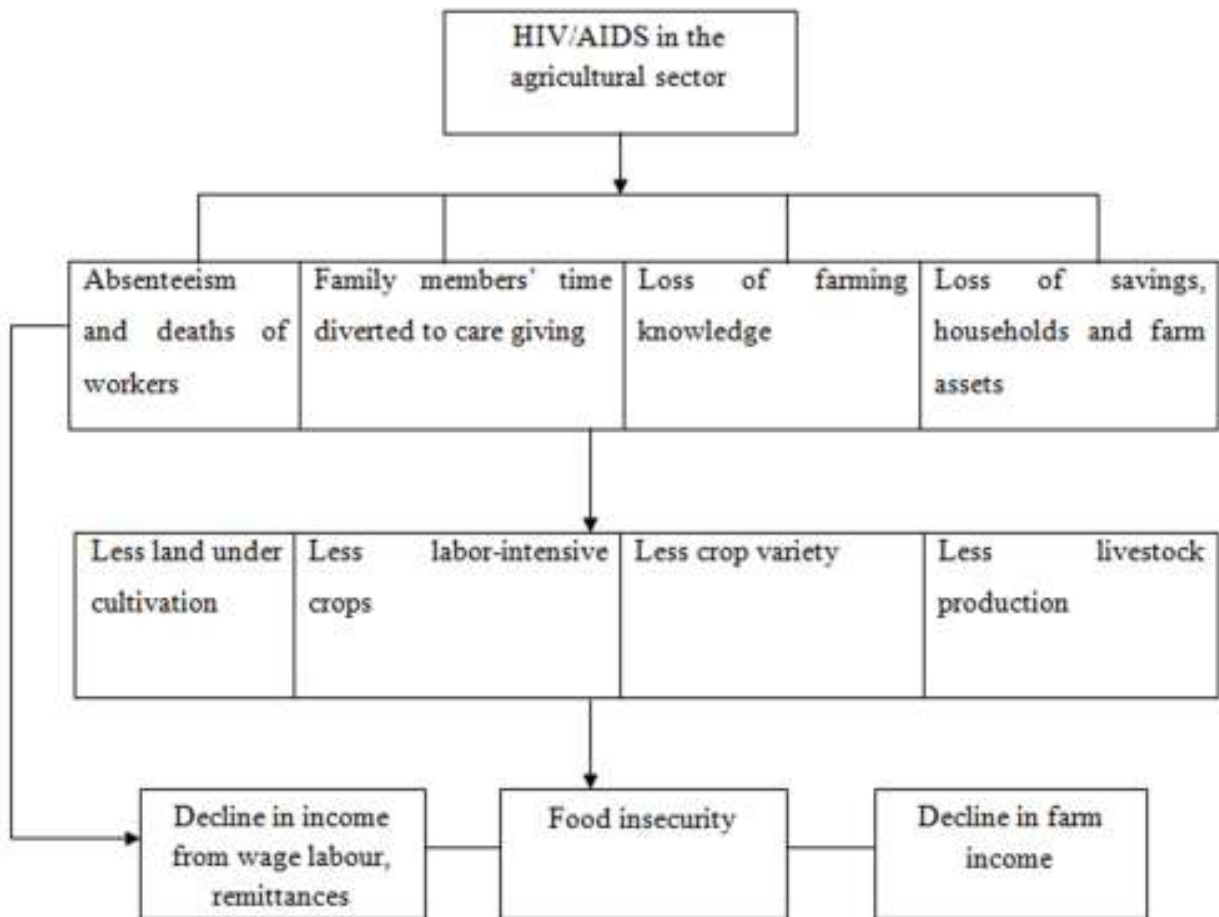
Food security has therefore become the generally accepted policy strategy, which does not only look at local procurement of food (i.e., at national production) but also recognizes that food can be sourced across borders (imports), (Smith, 1998a). Therefore, with reference to Sen (1981), Van Rooyen and Sigwele (1998) asserted that food security should be defined as "the acquirement of sufficient and nutritious quantities of food" (Van Rooyen and Sigwele, 1998:5) and not as an agricultural issue *per se*.

#### **2.5 Livelihoods: A Theoretical Perspective**

In order to investigate the impact of HIV/AIDS on households' food security, it is important to look at how the pandemic has affected rural livelihoods. Livelihoods are directly linked to food security as they are the means by which households source their food (May, 1996). Availability of income from jobs may also be viewed as the means for accessing food, the absence of which would contribute to food insecurity. Drinkwater (2003) contended that in order to know the

status of the household's food security, it is critical to understand the status of the household and individual assets.

**The conceptual framework of the impact of the HIV/AIDS epidemic on agriculture.**



**Fig 2.1 showing the impact of the HIV/AIDS epidemic on agriculture**

(Adapted from the impact of AIDS report by UN (2003); page 62)

The conceptual framework illustrates the impact of the disease on agricultural production. The epidemic leads to the absenteeism and deaths of workers, diversion of family member's time to care giving, loss of farming knowledge and loss of assets. These factors will then lead to a direct impact on both livestock and crop production, whereby land under cultivation, growing of

variety crops, labour intensive crops and livestock production will be reduced. In the long run the impact will later lead to a decline in income and food insecurity.

## **2.6 The economic impacts of HIV/AIDS on food security and rural livelihoods.**

The effects of HIV/AIDS on the rural households are varied with some being immediate and other long term. This section focuses on the socio-economic impacts of HIV/AIDS on two broad categories; short term and long term.

### **2.6.1 Short term effects of HIV/AIDS on food security and rural livelihoods.**

#### **a) Loss of Income**

According to Chapoto and Jayne (2008), households which have an affected individual will have been robbed of the ability of rural African products to generate income. In this instance, labour which is paid through formal or non-formal employment will be affected as time will be spent nursing the patient rather than in the productive activities to earn income. Productive activities like Income Generating Projects which are crucial in raising revenue for the rural people are not undertaken as people will be unable to cope with the responsibilities. Income is also spent on expenses like on, medication and payment of funeral expenses after the inevitable death of the person who succumbed to AIDS, (White and Robinson, (2000). In this scenario rural agriculture development's trends will be affected particularly the output as little investments would have been done of diversion of funds and time to nurse for the HIV infected ones.

#### **b) Loss of Labour or Stress**

Human capital/ labour are crucial components for the development of the agriculture sector. Among the most required capitals, human capital is the key and controls all other forms of capital. Research reveals that an AIDS afflicted household might lose two persons year's labour by the time of the death of a patient. Rugalema (1999) goes on to reveal that household with lower levels of human capital, capacity for agricultural production, and available labour are especially vulnerable to fall into a downward spiral of deterioration of household social welfare and livelihood following HIV infection. This shortage of labour may force the family to withdraw children from school to fill in the labour problems as it will be difficult to counter all the chores.

### **c) Declining yields.**

Du Guerny (1999) noted that reduction in yields are less immediately visible but important and are caused by a variety of factors including delays or poor timing in such essential farming operations as tillage, planting and weeding. Delays occur because of sickness or dependency on outside labour, which is not always available when needed (e.g. relatives who assist through solidarity first care for their own fields). It also seems that the fertility of the soil is affected negatively owing to the priority given to immediate survival concerns over longer-term land conservation measures. In Swaziland, Muwanga (2002) found that households that had experienced an AIDS related death had 54.2 percent reduction in maize production and 29.6 percent reduction in cattle herd growth. In Zimbabwe, households that experienced an AIDS death had 61 percent reduction in maize production.

### **d) Increased Household expenditure**

HIV/AIDS will cause affected households to spend more on medical care and funerals. In the Democratic Republic of the Congo, the cost of hospital care for a child with AIDS amounts to three times the average monthly household income (Davachi et al, 1988, as quoted in Tanya, 2002). In Burkina Faso, the cost of the lifetime care of an AIDS patient equals twice the country's per capita income. A study in New Zealand, which required respondents to keep a diary of their HIV/AIDS-related expenditure over a period of one month, found that private direct costs increase sharply as the illness progresses (FAO, 1997).

The changes in the supply of household labour caused by AIDS morbidity and mortality, which is accompanied by a drop in household income, will also result in changes in the aggregate level of expenditure. In affected households, aggregate levels of expenditure will increase initially as households need to spend more on medical care and funerals.

### **f) Loss of assets**

Once the households have a member infected with ADIS, the burden of increasing service cost is high as the patient requires body building food funds, medication fees. According to UNAIDS (2009) based on data from 2008, an estimated 71% of all new infections, and 72% of AIDS-related deaths, occurred in sub-Saharan Africa. In order to gain access to life-saving

antiretroviral therapies there has to be liquidation of assets. The affected person in most cases will be the breadwinner of the family, which therefore means there will be no source of income for the family hence other alternatives means of obtaining money for payment services have to be deduced, like selling of cattle and land- crucial for agriculture development.

Failure to obtain a constant supply of income will result in the loss of assets like cattle, and other assets including land. A study undertaken on the impacts of AIDS on female micro-finance clients in Kenya and Uganda found that there was a sequence of `asset liquidation` among AIDS care-givers in order to cope with the economic challenges, (FAO 1994). Assets such as land, cultivators, cattle, farm equipment and human capital are important to rural agriculture development and disinvestment in these assets will leave households in precarious position in terms of their ability to adapt to future shocks.

### **2.6.2 The long term impacts of HIV/AIDS on food security and rural livelihoods.**

#### **a) Poverty**

It has been influenced by the loss of assets like cattle, farm equipment which, if used purposefully has the potential to yield productive results hence the ward due to incessant loss of assets to care of its infected member would not be in a position to resist the poverty trap. This also occurs on the progression of HIV/AIDS and related infections have depleted household economic resources due to increased HIV related expenses (Komwa, 2011). During the course of illness, the funds used will outweigh the benefits which one would have made during the health period resulting in the sale of the draught power and other farm implements. This will be an increase in impacts as there will be limited livelihood strategies of survival reducing agriculture output hence agriculture development will pave way for poverty trap to the people.

#### **b) Trend in Women and Child-Headed households.**

HIV/AIDS is increasingly causing women and child-headed families, and thus they are vulnerable to HIV/AIDS impacts. According to UNDP, (2010) east and Southern Africa 40-60% of children orphaned as a result of AIDS are cared for by their grandparents. Children orphaned due to AIDS are finding it hard to make ends meet especially in the financial grounds which are crucial form all forms of rural development., the affected and the infected women and orphans



are cared by the relatives which in most cases are not such accommodating which further increases poverty susceptibility.

According to UNAIDS (2009); approximately 60% of individuals living with HIV/AIDS in sub-Saharan Africa are female. In contrast, females only accounted for 25% of all HIV/AIDS diagnoses among adults and adolescents in the United States in 2008, Centres for Diseases Control and Prevention. (2008). Women are at higher risk of acquiring HIV through heterosexual transmission due to physiology; however, other social, cultural and economic sanctions may play a role in producing the disproportionately higher rates in women living in Sub-Saharan Africa. African culture places women as subordinates to men and this affected the economic independence as the ownership of productive assets entitlements is for the men. The impacts are greatly disastrous for women hence leading to high poverty levels. The increase in the poverty levels have impacts on the development of agriculture since women are responsible for cultivating fields and other agriculture related work.

#### **c) Loss of agricultural knowledge and management skills**

Agro biodiversity and indigenous knowledge represent locally available agricultural assets with enormous value and potential in rural food and livelihood security (Gari, 2002). HIV/AIDS leads to loss of agricultural knowledge. People die before passing knowledge and expertise to the next generation. A study in Kenya showed that only seven percent of agricultural households headed by orphans had adequate knowledge of agricultural production. In Kenya's Ministry of Agriculture, 58 percent of all staff deaths are caused by AIDS, and in Malawi's Ministry of Agriculture and Irrigation at least 16 percent of the staff is living with the disease. One study found that up to 50 percent of the time of agricultural extension staff was lost through HIV/AIDS in sub-Saharan Africa (FAO, 2002).

HIV/AIDS generates a paradox regarding agro biodiversity and indigenous knowledge. It disrupts customary agricultural systems, socio-demographic structures, and community dynamics; it further impairs the maintenance of agro biodiversity and indigenous knowledge (Gari, 2002). Gillespie and Haddad (2002) indicate that AIDS drastically abbreviates that the ability of parents and other elders to transfer knowledge, both within their own generation and to

the next. AIDS impairs the ability of children to acquire and use information even through formal education, as children are pulled out of school to reinforce the family's ability to care for the sick, to maintain its current livelihood, or to develop new livelihoods. In many areas, the usual way for children to learn the required agricultural skills is by working with their parents. Given the AIDS pandemic, this is often no longer possible and, owing to the gender division of labour and knowledge, the surviving parent is not always able to transfer the skills of the deceased one.

#### **d) Impact on natural resources**

Land, forests, water, crops and animals are all affected by the HIV/AIDS epidemic. Land may not be cultivated and certain crops may not be grown because of the loss or lack of labour, and land may also be sold to pay the increased medical fees, funeral costs or other household expenses. Forests may not be managed, with some areas being over harvested because they are close to home of labour starved households. Water bodies may be over-exploited as households with sick persons who require frequent washing take more than the usual share (Steely, 2002). The conservation workforce in Africa has been particularly vulnerable to HIV/AIDS. Both its "formal" side, i.e. protected area authorities, university/research specialists, non-governmental organizations staff and its partners in rural natural resource-dependent communities are affected (Dwasi, 2002).

#### **e) Increase in urban-rural migration.**

According to Mmbaga et al (2008) in a research in areas around Kilimanjaro region in Tanzania, migratory tendencies of infected individuals in these areas further complicated rural life for people with HIV/AIDS who greatly need care. Previous studies of migration patterns have noted that HIV- infected individuals after return to their home village in order to be closer to relatives that can provide and care for them while they are ill. This process, in turn, may increase the risk of transmission to other in home villages hence the risks associated with HIV/AIDS will be increased leading to poor development of the agriculture sector as fund diversion on the population would have been increased.

## **2.7 HIV and AIDS and coping mechanisms in Sub Saharan Africa.**

The impact of HIV and AIDS in agriculture through increased morbidity and mortality is putting other household members under pressure. As pointed by Tawodzera (2005) the members are affected by a reduction in household resources and welfare. When infected individuals are sick or when they die, it is the other household members that have to take action to cope up with the problem. As a result, other household members develop coping up strategies which are as follows:

### **2.7.1 Change in crop pattern and area cultivated**

One of the measures that households adopt to address labour shortage is to change the cropping pattern by moving to less maintenance crops. Relating to a study conducted by Alemu and Bezabih (2008), in Rural Ethiopia most of the affected households reported changing crop types compared to the last three years to less labour intensive crop types. This was as a result of having household members who are ill or deaths, however members would have to adopt to less maintenance crops so as to cover up medical and or funeral expenses. Other households even end up reducing the area cultivated to meet the available resources, such that they do not continue having more expenses from agricultural inputs.

### **2.7.2 Selling of assets**

As a means of covering medical and or funeral expenses affected households end up selling their productive assets, for instance livestock. A study carried by UNAIDS (2002), in Swaziland indicated that a reduction of 29, 6% in the number of cattle kept was encountered as the cattle were sold to account for increased costs of health care and funerals.

In addition, Alemu and Bezabih (2008) reported a similar case in relation to the study they undertook in Ethiopia. According to their study, out of 441 affected households with an ill deceased member, 40% of these households reported to have sold assets. Out of the households who sold assets, 82% of these affected households 'reported to have sold productive assets and another 5% reported to have sold both productive and non productive assets. These strategic measures are incurred as a means to meet health and or funeral expenses. The selling of these assets has an effect of threatening their food security and livelihood.

### **2.7.3 Reallocation of household labour and employment of child labour.**

As a strategy of coping up with the effect of losing household labour, other members end up replacing such loss with child labour. In a case study by FAO in 2003, in Zambia an average of between 3 and 9% of children reported to have dropped out of school in order to replace lost household labour. This is done to ensure that the area cultivated and crop pattern is not changed due to labour shortages. According to FAO (2003), due to HIV and AIDS related illnesses and deaths, household members from urban replace lost household labour. The allocation of minors to household agricultural duties is another strategy adopted to balance household deficits.

### **2.7.4 Widening of the household resource base**

Since HIV and AIDS affect the productivity of agriculture by reducing the outputs attained the members cannot meet household requirements. As revealed by Mutangadura (1999), affected households engage in other in-coming generating activities for instance firewood collection, hiring land or working in other neighbouring fields. This is done to meet expenses like medical and funeral.

Changing of crop patterns, the area cultivated, selling of assets, reallocation of household labour and widening of the household resource base are some of the coping strategies adopted by small holder farmers in sub-Saharan Africa. Through these measures affected households are able to survive. However, Rugalema (1999) argues that these affected households will not fully cope to a level they would have been if they were not affected by HIV and AIDS. Instead these households will continue to suffer because of the effects the pandemic has to household members with a member who is infected by HIV and AIDS.

## **2.8 Household and community responses to the impact of HIV/AIDS**

Jackson, Mutangadura and Mukurazita (1999), state that households adopt a range of strategies to cope with effect of HIV/AIDS. Coping strategies not requiring any cash are the most frequently adopted? These include intra-house labour relocation, taking children out of school, diversifying household crop production and decreasing the area cultivated. The coping mechanisms employed by households affected by HIV/AIDS can be categorized into responses that deal with practical realities such as income loss due to loss of labour and those more

personal mechanisms with regards to care and support by other household members. In an analysis of the literature Donahue (1998) reveals that most loss-management strategies are employed in stages. The first phase involves the use of reversible mechanisms and disposal of self-insuring assets. Secondly, affected households dispose productive assets. In the final phase, the household enters into destitution. The table below highlights the three stages of loss-management to mitigate the impact of AIDS.

**Table 1; The three stages of loss management.**

STAGE	LOSS MANAGEMENT STRATEGIES
1. Reversible mechanisms and disposal of self-insuring assets	Seeking wage labour or migrating temporarily to find work ♦ Switching to producing low-maintenance subsistence food crops (which are usually less nutritious) ♦ Liquidating savings accounts or stores of value such as jewellery or livestock (excluding draft animals) ♦ Tapping obligations from extended family or community members ♦ Soliciting family or marriage remittances ♦ Borrowing from informal or formal sources of credit ♦ Reducing consumption ♦ Decreasing spending on education, non-urgent health care, or other human capital investments
2. Disposal of productive assets	♦ Selling land, equipment, or tools ♦ Borrowing at exorbitant interest rates ♦ Further reducing consumption, education, or health expenditures ♦ Reducing amount of land farmed and types of crops produced
3. Destitution	♦ Depending on charity ♦ Breaking up household ♦ Distress migration

**Source: Donahue, J. (1998); Tanya, A. (2002)**

In addition to the three coping phases noted by Donahue, Jackson et al. (1999) report that the household coping strategies can be divided into three basic categories. The categories include strategies aimed at improving food security; Strategies aimed at raising and supplementing income so as to maintain household expenditure patterns; and Strategies aimed at alleviating the loss of labour. The table below provides a summary of the household coping mechanism categories

**Table 2; Household coping strategies.**

Strategies aimed at improving food security	Strategies aimed at raising and supplementing income so as to maintain household expenditure patterns	Strategies aimed at alleviating the loss of labour
<ul style="list-style-type: none"> <li>- Substitute cheaper commodities</li> <li>- Reduce consumption of the item</li> <li>- Send children away to live with relatives</li> <li>- Replace food item with indigenous or wild vegetables</li> <li>- Beg</li> </ul>	<ul style="list-style-type: none"> <li>- Income diversification</li> <li>- Migrate in search of new jobs</li> <li>- Loans</li> <li>- Sale of assets</li> <li>- Use of savings or investments</li> </ul>	<ul style="list-style-type: none"> <li>- Intra-household labour reallocation and withdrawing of children from school</li> <li>- Put in extra hours</li> <li>- Hire labour and draught power</li> <li>- Decreasing area cultivated</li> <li>- Relatives come to help</li> <li>- Diversify source of income</li> </ul>

**Source: Jackson et al (1999)**

## 2.9 Summary

This chapter has looked at the previous studies on the effects of HIV/AIDS on food security and livelihoods, how the impact is assessed and the challenges faced by the households in alleviating the adverse impacts of HIV/AIDS on food security and livelihoods. The literature has revealed different mitigation strategies used by countries widely and limited research was done on these mitigation in Ward 2 of Mt Darwin District.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter outlines ways of collecting data that in turn answers the problem or question. It consist of research design, data collection instruments, sample population, sample size, sampling method, data collection procedures and data presentation and analysis techniques.

#### **3.2 Study Area**

Mt Darwin is one of the eight districts making up Mashonaland Central Province. It is also the largest district in the Province with 40 wards and is situated in the North of the province sharing a common border with Mozambique along Mukumbura River in the north, with Rushinga in the east Shamva in the south and Muzarabani in the west. The district stretches for about 4 477, 3 km squared in area with a total population of 214 758 as at 2012 census. There are 47 956 households in the district with an average membership of six (6) people per family.

Mukumbura ward 2 is the largest ward in Mt Darwin district. It is located around 252km northeast of Harare making it the border post to Mozambique. It is in agro-ecological region 4 where rainfall ranges from 450 mm to 500 mm, experience single rain season and temperature ranges from 18 degrees Celsius, to 31 degrees Celsius. The area has an estimated population of 13 099 and 130 average households per village. The soils were largely sandy loam of low fertility (SAFIRE 2006). Due to low rainfalls and soil types have resulted in low crop production in the area .Agricultural activities such as crop production and livestock are the cornerstone of livelihoods in the area on subsistence basis, these farmers depends on natural inputs. People in the area mainly grow maize; sorghum for food and cotton as cash crop.

## Mukumbura Ward 2 Mount Darwin District in Zimbabwe

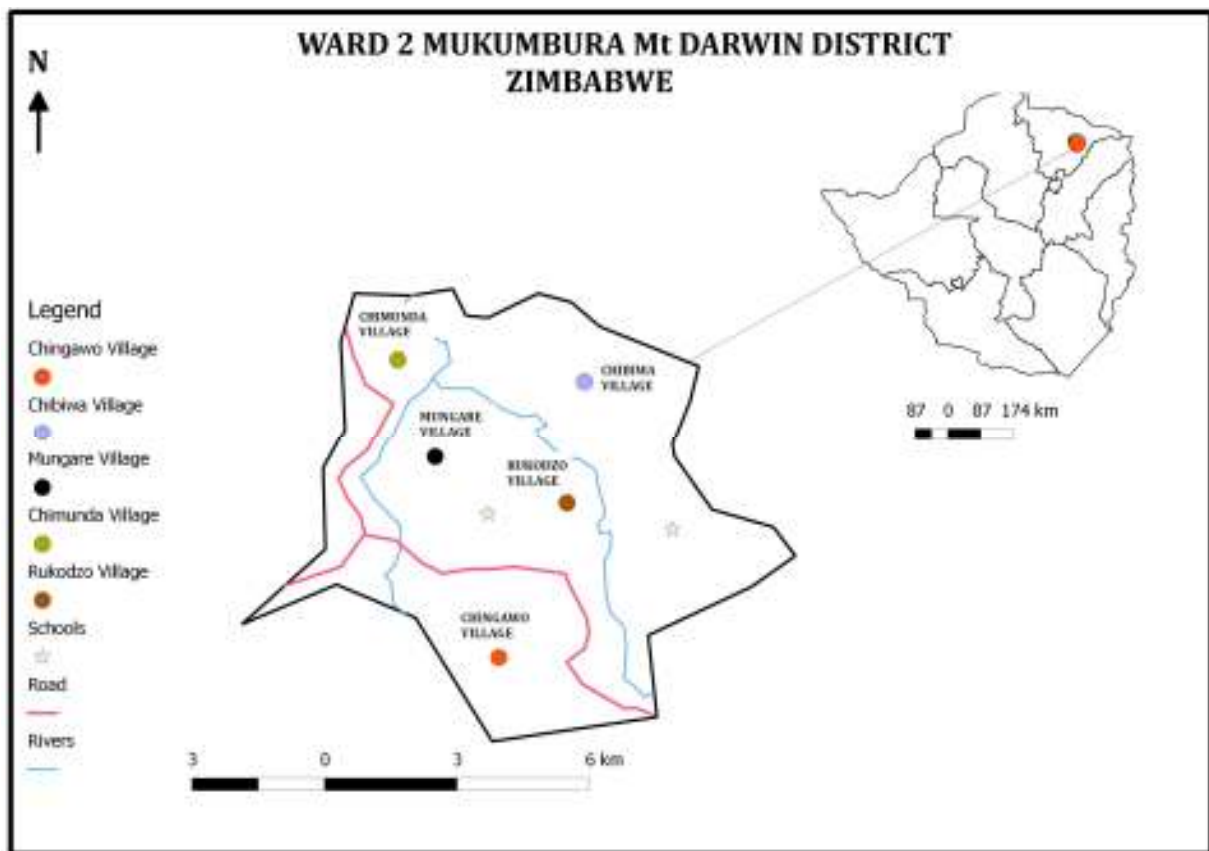


Figure 3.1: Study area map

### 3.3 Research Design

In this study the researcher used a case study design because the research focused at a single entity or case that is the Ward 2 of Mt Darwin District. As supported by Bell, (1995) a case study design is focused on enquiry around an instance that is, a study of a particular phenomenon. The case study was appropriate because the design involved direct observation of the participants in Ward 2 whilst interacting with the households in their local language. The case study also allows the use of questionnaires, interviews and focus group discussions which made it possible for the researcher to use the most suitable one. However, the setback of using case studies is that it is not possible to generalise on the basis of the findings (Dawson, 2009).



### **3.4 Target Population**

The researcher targeted households in the study area whose breadwinner has been affected or died of HIV/AIDS in the past ten years. The population was identified from District Aids Action Ward Committee records. The population of households was too large to deal with due to time and financial constraints. Therefore 100 households (15% of total households) of those affected people were selected using systematic random sampling technique. This was done following Burgess` (1982) suggestion that, for research findings to be generalized to the population with limited degree of error, a sample should comprise a minimum of 10% of the population under study.

### **3.5 Research Instruments**

The collection of data for this research was done by use of both primary and secondary data sources. These include questionnaires, interviews, focus group discussion and document analysis.

#### **3.5.1 Questionnaire (Appendix I)**

Questionnaires were the main instruments used by the researcher in collecting data. It was used because it enables confidentiality of the provided by the respondents. Questionnaire enabled the researcher to get more information from a number of respondents at a short period of time. Questionnaire is easy to administer and the results are easy to analyse.

#### **3.5.2 Interview guide (Appendix II)**

The researcher used unstructured interviews; this means questions can be changed to meet the respondent intelligence and understanding. Unstructured interviews are suitable for sensitive subject like HIV/AIDS it enables the researcher to get more answers because he would ask more questions depending on the last answer of the respondents.

#### **3.5.3 Observation guide (Appendix IV)**

These were employed in order to see and confirm some of the issues pointed out by the respondents in interview and questionnaire. Bailey (1996) outlined different aspects of what an observation in field research entails: it may include physical surroundings (as the home may tell

a story about the person) and household members' appearance, which may reflect the family's status.

### 3.6 Data collection in the field

The researcher used both qualitative and quantitative approach to collect data. Quantitative data are obtained from information gathered from questionnaires and the method involved statistical tests thus the research can be repeated and results checked. It is possible to study larger and more representation samples which can provide overall picture (Haralambos and Holborn, 1995).

According to Dawson (2009), qualitative approach explores attitude, experience and behaviour of households and the approach was considered necessary in this case for capturing data on households' opinions and perceptions on the effects of HIV/AIDS on food security and livelihoods.. The information was gathered through using interviews, focus group discussion and observation since it generated data which is more qualitative.

#### 3.6.1 Sampling

Mukumbura ward 2 comprises of 14 villages, selection of villages was based on purposive sampling criteria considering the proximity of each village to their livelihoods. Five villages which include Chimunda, Chingawo, Mungare, Chibiwa and Rukodzo were selected. Systematic sampling was used to select household to be interviewed using the list of villagers. The samples were then drawn from within these locations of their population sizes were samples were chosen in a systematic way that is every 5<sup>th</sup> household was selected in each village and were there was 5<sup>th</sup> household was not there the 6<sup>th</sup> household was taken.

**Table 3. Showing sample sizes**

	Chimunda	Chingawo	Rukudzo	Mungare	Chibiwa	Grand Total
Number of households	189	195	163	201	161	909
Sampled Households 15%	20	22	19	21	18	100

### **3.6.2 Pilot Testing**

Questionnaires and interviews were administered in the selected ward before the actual data collection to make sure that they make sense to the respondents. The pilot testing also helped to correct and rephrase some of the questions which were not fully understood by the respondents. After corrections were made, the instruments were now set for the final research.

### **3.6.3 Administering of Questionnaire**

A Questionnaire is a means of eliciting the feelings, beliefs and experiences of a sample of population. The questionnaire is a systematic way of collecting data and usually they are self administered (Payne and Payne, 2009). When properly constructed and responsibly administered; questionnaires become a vital instrument by which statements can be made about specific group or entire populations. These questionnaires will be given to head of households at each sampling household on HIV/AIDS experience and how they have managed to reduce the impacts.

The questionnaire (Appendix1) had both open ended and closed questions and were distributed to the households both males and females. A 15% representative of the targeted population was used giving a total of 100 questionnaires administered. The researcher self-administered 20 questionnaires to head of households in Ward 2 of Mt Darwin District also monitoring of data collection process was done. The households were instructed to respond all questions in the questionnaires with the help of the researcher. A total of 100 questionnaires were disseminated and 81 were returned, giving an impressive response rate of 81%.

### **3.6.4 Interview Guides**

The Interviews provide background information to the problem, and gives access to information that cannot be accessed by means of observation, for example the intentions of the programme. Two main types of interviews were employed, the in depth interviews, and semi structured interviews. As this method proves to be useful on topics for which little information known with the few and where it is important to gain an in-depth understanding of the phenomenon at hand. In this study it was dutifully to serve this purpose. Semi-structured interviews were administered to health care centres. As an advantage to this research the interview approach promoted rapport

between the researcher and the respondents and sensitive issues are openly discussed. It also allows the researcher to validate what was said through non-verbal behaviour since there was an eye contact during the interviews.

### **3.6.5 General Observations**

Bailey (1996) outlined different aspects of what an observation in field research entails: it may include physical surroundings (as the home may tell a story about the person) and household members' appearance, which may reflect the family's status. In every household visited, the physical surroundings, such as the type of housing, were observed, as well as the appearance of the household members. Children were also observed to check for any obvious signs of malnutrition. These observations were done mainly during the first visit in which the household members would generally not have been expecting visitors.

## **3.7 Data Pre-Processing**

The following methods were used for data pre-processing to correct errors in the data collected and to ensure quality control and reliability of the data.

### **3.7.1 Editing**

Editing of data is a process of examining the collected raw data especially in surveys to detect errors and omissions and to correct these when possible. As a matter of fact, editing involves a careful scrutiny of the completed questionnaires and or schedules (Kothari, 2004). Editing is done to assure that the data are accurate, consistent with other facts gathered, uniformly entered, as completed as possible and have been well arranged to facilitate classification and tabulation (Jon and Dillon, 2003). The data from questionnaires was edited to correct the errors encountered during questionnaire filling before the data was analysed to ensure validity and usefulness.

### **3.7.2 Tabulation**

Tabulation is the process of summarising raw data and displaying the same in compact form for further analysis. In a broader sense, tabulation is an orderly arrangement of data in columns and rows. Tabulation is essential in that it conserves space and reduces explanatory and descriptive statement to a minimum. It facilitates the process of comparison, it facilitates the summation of

items and the detection of errors and omissions and it provides a basis for various statistical computations (Kothari, 2004). The choice depends on the size and type of study, cost considerations, time pressures and the availability of tabulating machines or computer (Dawson, 2009). The data was tabulated to allow comparison in terms of sex and age and cross tabulation was normally used so as to show the total statistics on given data.

### **3.7.3 Classification**

Most research studies result in a large volume of raw data which must be reduced into homogeneous groups if we are to get meaningful relationships (Dawson, 2009). This fact necessitates classification of data which happens to be the process of arranging data in groups or classes on the basis of common characteristics. Data having a common characteristic are placed in one class and in this way the entire data get divided into a number of groups or classes (Kothari, 2004). Data was classified on the basis of common characteristics which include age and sex.

### **3.8 Reliability and Validity**

According to Bell (1995), the validity measures include triangulation, the use of multiple observers and multiple sources of data, and periodic consultations with the supervisor. These enhance the reliability of the procedures and thus, the results can be described as logically coherent with, and grounded in the adopted format and the data collected. In addition, the use of specific criteria as opposed to general impressions reduces the problems of the halo effect, the generosity error and the error of severity, while improving standardization. Events are represented as they were whether or not they were specifically 'prepared' answers. It was possible to detect falsehoods. The role of the assistants in particular, being residents NGO workers, gave the study the necessary trustworthiness, authenticity and credibility arising from conditions akin to action research. (Payne and Payne 2009).

### **3.9 Data Analysis Procedure**

Data from the different collection methods were categorized into classes namely the effects of HIV/AIDS, impact of HIV/AIDS and the challenges. Similar data from these different sources were compared to check for consistency and collect as much information from all the methods

used as possible. Errors and suspicious data from any of the methods were identified using information from the other complementary sources. The first analysis involved examining the effects of HIV/AIDS on food security and livelihoods and counting of the number of households who were affected in Ward 2 of Mt Darwin District. The second analysis involved assessment made in alleviating the adverse impacts of HIV/AIDS on food security and livelihoods based on the opinions (deeming as either effective or ineffective) of the participants. The percentages of the participants who view each of the technique as effective or otherwise were recorded. Another analysis was done which identified challenges associated with efforts to minimise effects of HIV/AIDS on food security and livelihoods in Ward 2 of Mt Darwin District and counting the number of people who pointed out each as a challenge. The collected data were analyzed using Microsoft Excel where simple descriptive statistics were obtained and results were summarized as graphs and pie charts for discussions.

### **3.10 Limitations**

The researcher was challenged by the poor road network in some villages which resulted in some questionnaires not reaching respondents in time. Some of the respondents were expecting to benefit from the study as they thought that it was an NGO therefore, increasing the risk of getting irrelevant information from them. These constitute the participants who had wrong attitudes about the study and they were unwilling to take part since they thought it was politically inclined. As a result the researcher managed to overcome these challenges by explaining thoroughly the main thrust of the study in ward 2.

### **3.11 Summary**

This chapter looked at the research design, methods and data collection tools. Data collection procedure, sampling procedure and data analysis procedure have also been discussed and purposive sampling was used to select the respondents. Interview guides were used to get information from the key informants while questionnaires, focus group discussions were used to information from the households. The following chapter will focus on data presentation, analysis of findings.

## CHAPTER FOUR

### PRESENTATION OF FINDINGS, ANALYSES AND DISCUSSIONS

#### 4.1 Introduction

This chapter explains the data found on the research. It consists of data presentation, data analysis and data discussion. This is important because without enquiring into the meaning of the data, a research problem cannot be resolved. Data was collected using interview guides, questionnaire. Data entry and analysis was done using tables, graphs and also was presented using simple descriptive method, which was divided into subtopics that related to the response of the research instruments.

#### 4.2 Respondents` Characteristics

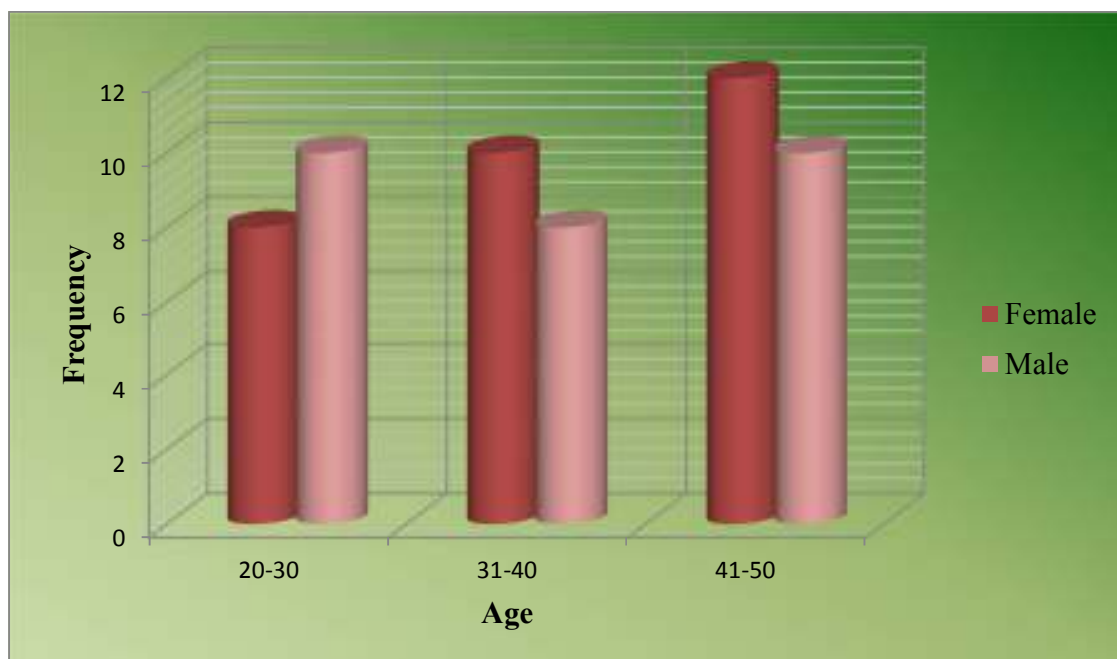
The respondents` characteristics refer to the age and sex of the participants.

##### 4.2.1 Distribution of respondents

A total of 100 households were sampled and interviewed for the study. Approximately 48% of the household in the sample are characterized as directly affected by HIV/AIDS while 52% of the households are indirectly affected by the pandemic. As pointed out earlier in the section of this report households were deemed directly affected by the pandemic if they had any of the following that is HIV/AIDS orphans, households member who were AIDS related sickness and suffered HIV/AIDS related death.

##### 4.2.2 Age of respondents

The respondents were grouped according to their age, it consist of respondents who are 18 to 50 years of age. Figure 4.1 presents that the majority of the household fell into the category of 41-50 the category which follows is 31-40 and also the least being 18-20.



**Figure 4.1 Age of respondents**

### **4.3 Impact of HIV/AIDS on Livelihood assets and activities (shocks and stresses).**

This section seeks to identify the links between HIV/AIDS and the elements of the livelihood systems in the study sites. While the study deliberately focused on HIV/AIDS, it is not the only shock or stress that the households are exposed. The following section shows the prevalence and perceptions about HIV/AIDS in the study sites.

#### **4.3.1 HIV/AIDS Prevalence and people's perceptions**

Proxy Indicators were used to separate AIDS affected from non-affected households. The proxy indicators included presence of chronically ill adult and household head, and death of an adult or household head from terminal illness in the past 12 months. The targeting of households was based on information from the Health Neighborhood Committee and the village home care. This increased the prevalence rate in the study when compared to the national prevalence that indicated 12.8%. Table 4 shows the prevalence rate among the study sample.



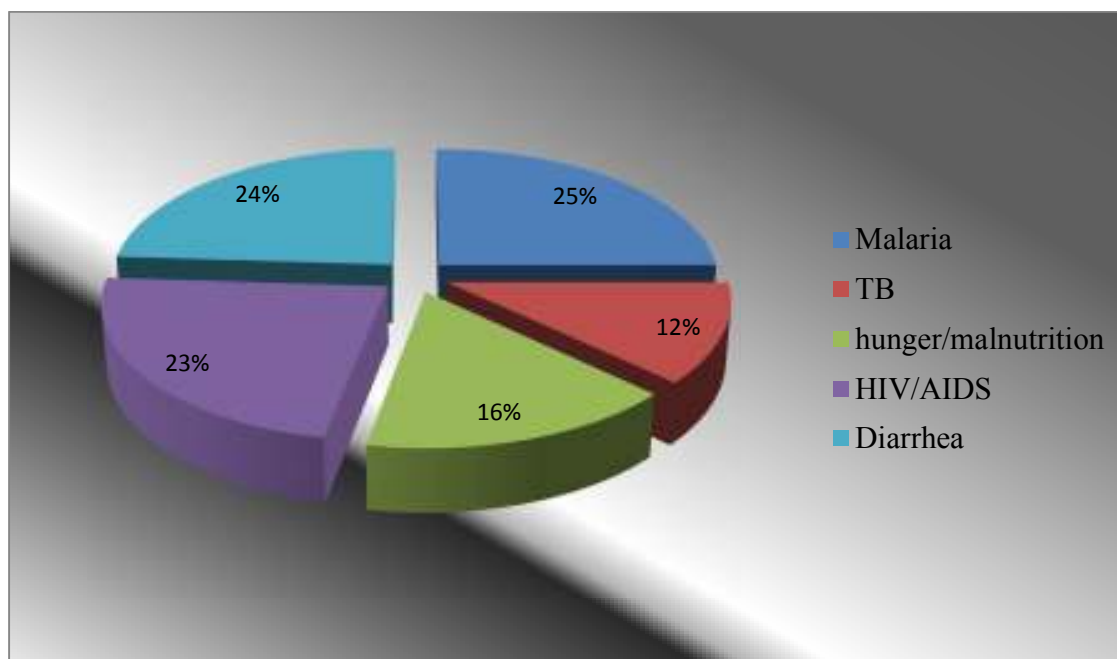
**Table 4; HIV/AIDS Prevalence among the study sample.**

<b>Proxy Indicator</b>	<b>Male Headed</b>	<b>Female Headed</b>	<b>Child Headed</b>
Chronically ill adult	26	16	0
Household head chronically ill	15	24	0
Adult died from Chronic illness	12	6	2
Household head died from Chronic illness	7	4	11
Not affected	36	36	0

Of the male-headed households, 56 (60%) were affected by HIV/AIDS. Among the affected households, 29 (26%) of the total had an adult who was chronically ill while 17 (16%) had a household head who was ill. Male-headed households that had lost a person from a long illness were 12 (13%) and 7 (8%) for adult and household death respectively. Non-affected male headed households were 36 representing 36% of 100.

Among the female-headed households, (61%) were affected by HIV/AIDS. These included 16 (19%) who had an adult suffering from chronic illness, 24 (29%) that had a sick household head, 6 (8%) that had lost an adult from chronic illness and 7 (5%) that lost a household from a terminal illness. Non-affected households among the female-headed households accounted for 39%. The entire 13 child headed households had been affected by HIV/AIDS mainly through the death of household heads and adult family members.

The affected households attributed the deaths and sicknesses of household members to malaria, diarrhea, TB, hunger/malnutrition, and HIV/AIDS. This is shown in figure 4.2 below. Of the 100 affected households, 25% mentioned malaria, 24% diarrhea, 16% hunger and malnutrition, and 12% TB. It is interesting to note that some household members are able to mention HIV/AIDS as a cause of death or illness of their family members.



**Figure 4.2 Perceptions of causes of death and chronic illness.**

#### **4.3.2 Impact of HIV/AIDS on the households and their livelihoods**

The impact of HIV/AIDS ranged from perception and attitude change among household members to changes in asset use and control and in application of family labour (Henry, N. 1990). Of the 100 households, 48% reported that the illness and sickness of their relative had changed their own thinking about HIV/AIDS. One household member said that “...I thought it was out in the streets but it has now entered our bedrooms. We all need to be careful and do something to stop it from spreading...”. Another 36% reported changes in use of material and financial assets. There was increased depletion of savings and sale of assets to meet both the food and medical needs of the sick person. In addition to the patient, more money was required to feed other relatives that came to visit the sick person.

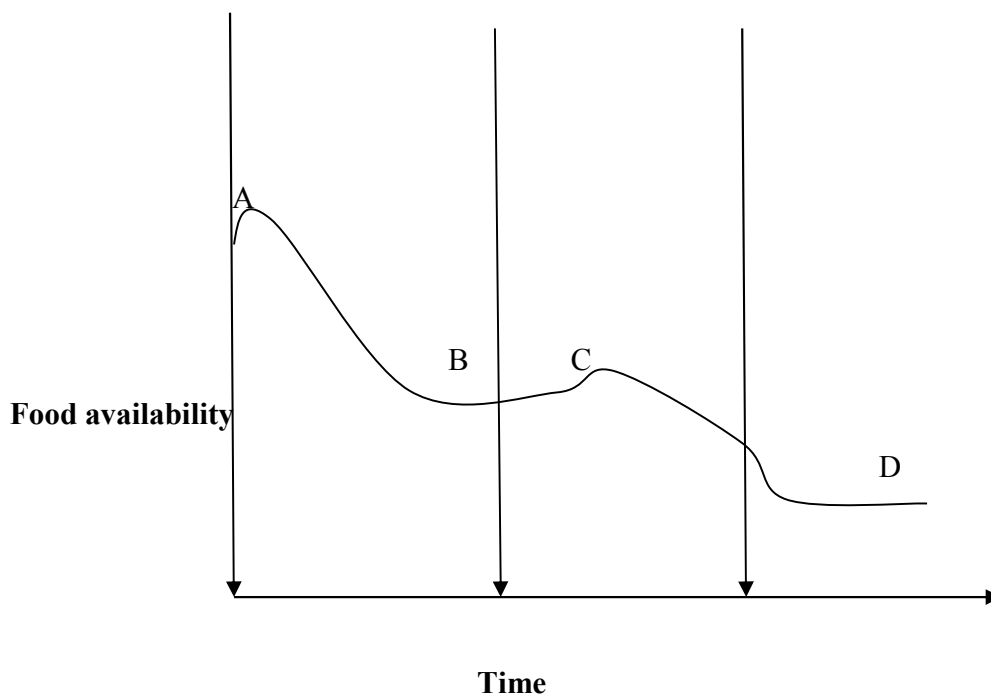
#### **4.4 Impact of HIV/AIDS on food security.**

The death or sickness of the head of household also led to reduced inflow of food and income. The adult who was supplementing household food and income source was no longer able to do so. As a result there were reductions in food stock and food consumption. Of the 100 households, 67%

reported a reduction in food available at home and eventually in the amount of food consumed in the household.

#### 4.4.1 Food availability patterns

From the interviews, it appeared that households where the sole breadwinner, or another family member who contributed significantly to the food budget, fell ill and eventually died, faced different effects and applied different coping strategies. Figure 4.3 depicts a typical pattern observed among such households. The levels indicated on this graph were assumed to exist, as the interviews did not produce figures that could clearly quantify these changes.



**Figure 4.3: The case of a breadwinner's death, resulting in orphans.**

Point A indicates that the household started at a food availability level that was assumed to be relatively high. As the household is exposed to the effects of the disease, one of which may be a loss of the income of the sick family member, the capacity to purchase food declines, leading to a level indicated by point B. This point is commonly considered by the families to be a transitory food shortage phase, in anticipation of government support (Jones, 1994). Nonetheless, at point

B, one of the possible ways in which the family could improve their food situation could be to use their savings (if available).

However, what emerged from the interviews was that the families' situation improved somewhat when they received the food basket for the sick person from organizations such as World Vision. Because the basket is not meant for the entire household, but only for the sick member, the basket does not restore the family's food availability level to a desired level (or the original level) but to a point such as C, which is better than B but noticeably worse than A. The family would receive this food basket as long as their sick member is alive. In case of death, the food basket ceases and the food situation deteriorates further if no other solutions were sought.

#### 4.4.2 Food Consumption Score

More than 50% of households from both types of households do not have good consumption score, the percentage affected households who do not have good consumption is higher than the non affected households.

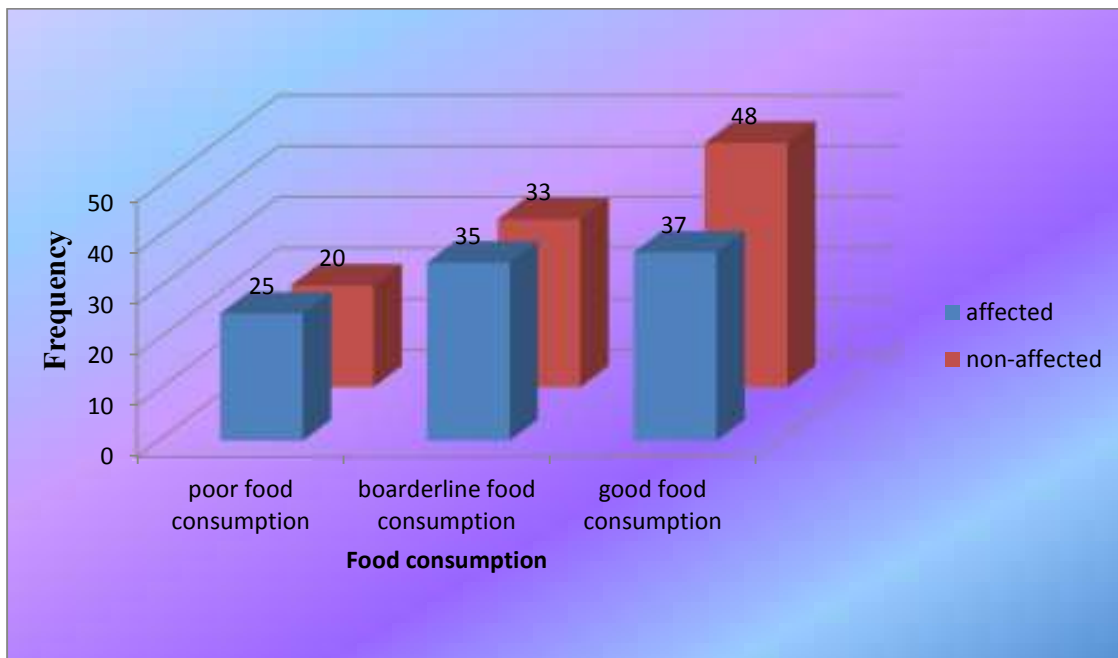
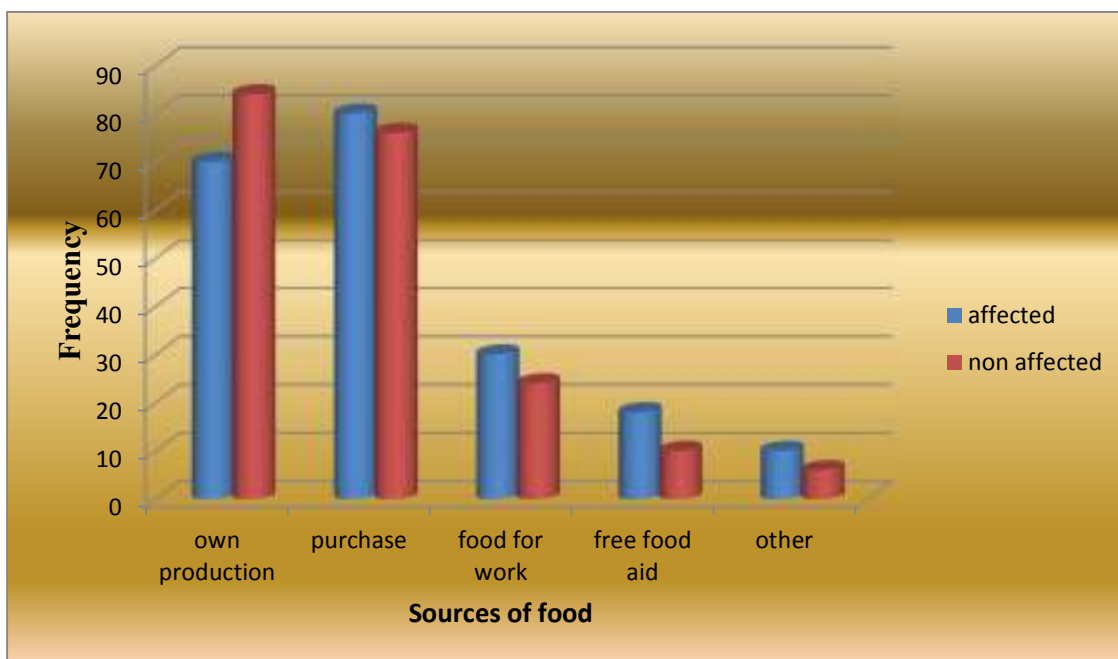


Figure 4.4 Household Food Consumption

Households headed by married men/women had better dietary diversity compared to the other marital status categories. Households affected by HIV/AIDS had a likelihood of 27.8 percent lower than households non-affected by HIV/AIDS in terms of falling into better dietary diversity category. Households who have at least one adult chronically ill or deceased adult member in the previous 12 months before the survey were less likely to have better dietary diversity compared to those who had no chronically ill and deceased adult member. It is expected that quantity of food obtained through own production, food aid, food for work, and purchase would increase the dietary diversity of households.

#### 4.4. 3 Sources of Food.

In order to see if there are differences between the two types of households in terms of the quantity and source of food, households were asked the amount of food they received in the last three months from their own production and from different sources. The main sources of food in the last three months as shown in the graph are own production and purchase.



**Figure 4.5 Main sources of food.**

The Figure 4.5 showed that own production is the highest because in rural areas majority of the households still depend on rain-fed agriculture as their basis of livelihood. The households

produce their own food through subsistence farming and maize being the dominant crop which is threatened by erratic rainfall resulting in low agricultural yields.

Some farmers sell their produce and use the money to buy other food stuffs from the market which showed that some households acquire it from the market. Also some households acquire food from drought relief programmes which include food aid and food for work programmes. The households receive food aid and food for work programmes from Government and NGOs like SAT, World Vision and Care. Casual labour is another strategy which helps people to have access to food through income generated from the labour. The households works in other people`s field and get food or money in return what they called “*Nhimbe*”.

#### 4.5 Coping Strategies.

There exist a number of strategies that are employed by households in the district to cope with food shortages. There is little evidence of difference in these strategies across gender dimensions. Major strategies used by households includes food for work, food aid, selling livestock, cash remittances, reducing number of meals per day and limiting portion size at meal time.

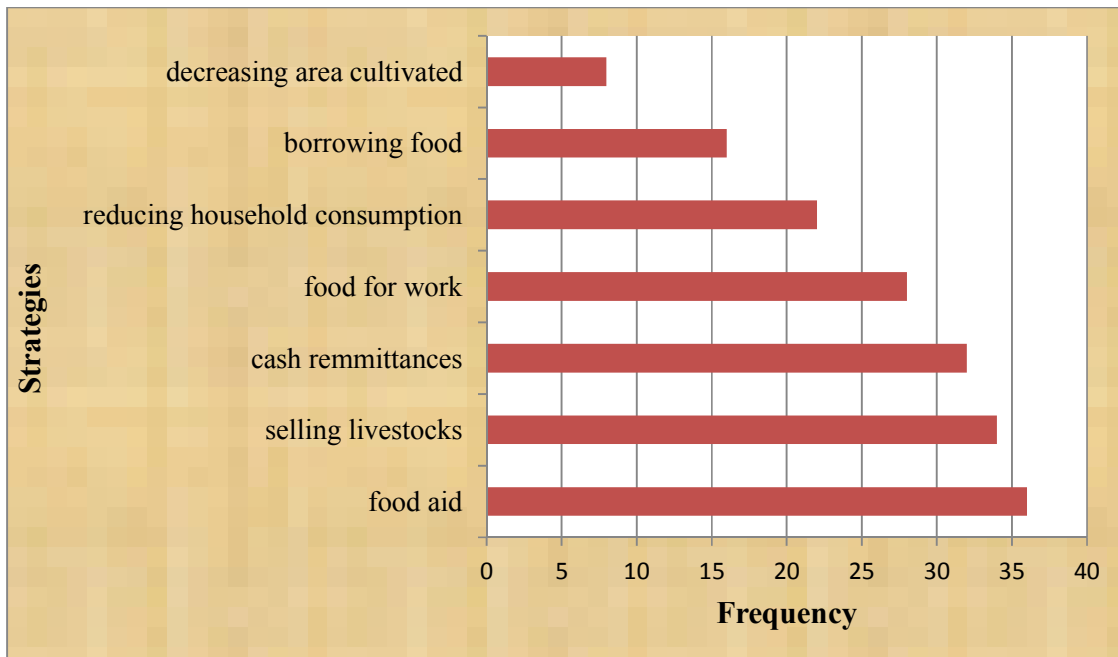


Figure 4.6 Coping Strategies.

As illustrated in Figure 4.6 food for work is a strategy used by households with a frequency of 28, also the interviews revealed that food for work by NGOs such as World Vision and CARE is important since there is a gradual shift from free handouts to food for work. This was strongly backed by, Sweet (1995) whose research findings revealed that NGOs and the Government assisted in food for work projects in Namibia.

The food aid is received from the Government and Care International only. As reviewed in the literature, food aid is the first step in reducing impacts of food insecure. Also some mitigation strategies in Kenya found out that food aid was most common as indicated by Nyamangwe (1995). At an interview, one of the organisations confirmed that they distribute food aid to ward 2 every year. In an interview one of the interviewee outlined that food aid given by organisations has been helping the households for a long period especially those affected by the pandemic.

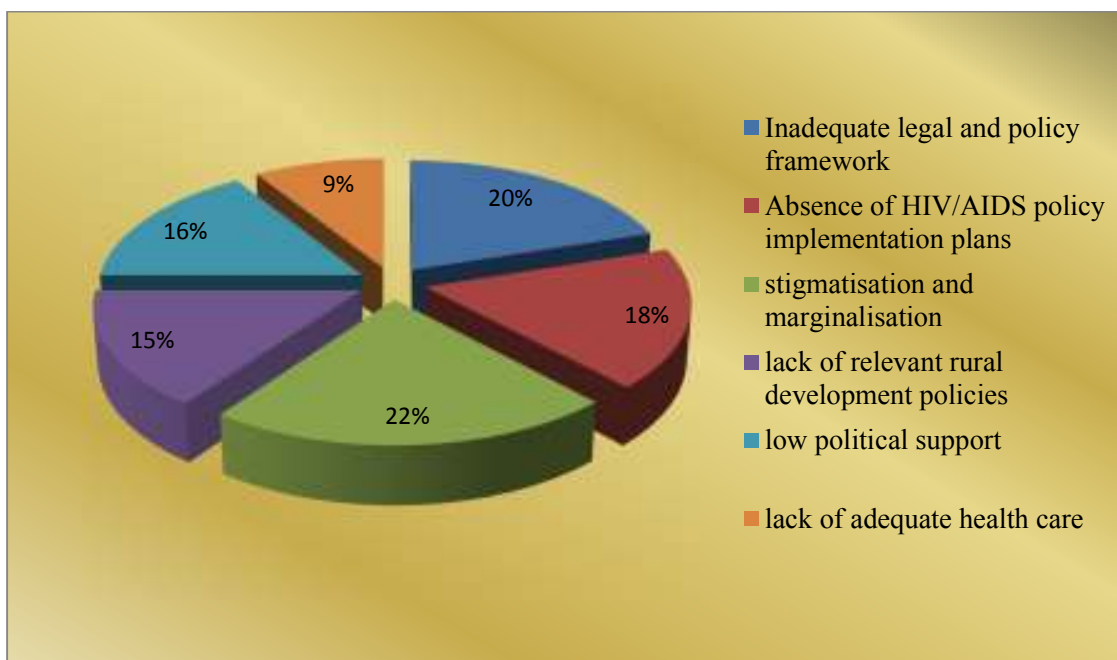
The responses from households showed that selling of livestock is one of the strategies employed by the communities The most sold animal being cattle thereby increasing vulnerability as they will be disposing the most valuable asset at a lower price due to lack of markets. The majority of the households barter trade one cattle with a bag of maize in drought times of which it's unsustainable.

In Figure 4.6, some households rely on remittances from relatives to keep food on the table and to meet their daily needs during food insecure times. The remittances are in the form of money, food and groceries. The remittances were sent by either relatives or family members who work in other areas in town or nearby towns such as Mt Darwin and Bindura.

Many of the coping strategies have a negative effect on the long-term sustainability of livelihoods. While they meet immediate needs of the households, they undermine the future income earning potential of households and individual members. Mitigation strategies should overcome the negative effects of HIV/AIDS at the household and community levels (Jackson, 2002).

#### 4.6 Challenges associated with efforts to minimise effects of HIV/AIDS on food security and livelihoods.

The households are facing a quite number of setbacks in trying to reduce the impacts of HIV/AIDS on household food security and rural livelihoods and have contributed to the ineffectiveness of mitigation strategies. The respondents pointed out that stigmatisation and marginalisation of people, lack of adequate health care and social services, lack of relevant rural development policies, poverty, inadequate legal and policy framework, absence of HIV/AIDS policy implementation plans and lack of political will policies were the major challenges faced in trying to mitigate the impacts of HIV/AIDS as shown in Figure 4.7.



**Figure 4.7 Challenges faced by households.**

From Figure 4.7, stigmatisation and marginalisation of people and households living with HIV/AIDS is a major constraint. Such discrimination can interfere with the transmission of prevention messages; discourage the adoption of voluntary counselling, testing and access to early care; give the appearance that individual and social denial are legitimate and make it



difficult for people living with HIV/AIDS to be involved in mitigation efforts and for people who are not infected to talk about the virus and adopt safer practices.

There is lack of adequate health care and social services limit initiatives to combat the epidemic through medical treatment. The high cost and limited availability of drugs to fight both the primary HIV infections and secondary infections and associated opportunistic diseases are serious constraints to effective HIV/AIDS programmes. There is also general lack of relevant rural development policies in which HIV/AIDS is mainstreamed and in situations where relevant policies do exist, some of them are outdated. Some of the policies that are crucial for HIV/AIDS mitigation on rural livelihoods have been in draft stages for a long time in some countries.

Another challenge constraining progress on HIV/AIDS mitigation work is low political support. In this Ward, lack of empirical data on the depth and extent of the impact of HIV/AIDS has made some politicians to be sceptical on the need for HIV/AIDS mitigation. Poor political support can cause implementation of HIV/AIDS mitigation interventions to be slow. There is need for intensified sensitization of political leaders and lobbying for creation of parliamentary committees on HIV/AIDS. Such actions can be spearheaded by National AIDS Councils, UNAIDS, civil society and key development actors (World Bank, 1997).

#### **4.7 Summary**

In this study, the analysis of the collected data followed the proposition of Yin (1984) that a case study can be analysed relying on theoretical propositions upon which the study is based. It was observed that food shortages were one of the negative effects of HIV/AIDS on the food status of the interviewed households as result of inability to access food. Coping strategies regarding food shortages and general food insecurity differed among these households. The next chapter presents the study summary, conclusions and recommendations.

## **CHAPTER 5**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter unfolds the summary of the research and its findings, conclusion and recommendations.

#### **5.2 Summary**

The aim of this study was to investigate the impact of HIV/AIDS on household food security through determining the following objectives: (i) to examine the effects of HIV/AIDS on food security and livelihoods; (ii) possible strategies which can be used to reduce the impacts of HIV/AIDS; (iii) identify challenges associated with efforts to minimise effects of HIV/AIDS.

The study results show a much higher number of death and cases of chronic illness among affected households in contrast to the non -affected. As many as 63 deaths were reported over a 5 year period prior to the survey. Of these, 70% are from affected households. As a result of a higher number of deaths and chronic illness, HIV/AIDS affected households showed a much different household structure than the control group. The difference include: a higher number of widows and widowers, a higher dependency ratio, a much higher number of orphans. There is a much higher percentage of FHH among the affected, almost double the percentage for non-affected and the national average for rural areas. FHH have fared badly on many of the indicators used for analysis.

When it comes to education of children, more children from affected households were absent from school for four or more days per month. Also, a slightly higher percentage of children from affected households dropped out of school. But, we did not find much difference in the percentage of children who were enrolled in school at the beginning of the academic year. Another effect of high number of death and illness was labour shortage faced by affected households. FHH were particularly constrained by labour shortage. More affected households left land uncultivated and they reported labour shortage together with illness as the reasons for leaving land uncultivated. In addition to leaving land uncultivated, a higher proportion of

affected households as compared to the non-affected changed crop types due to illness and labour shortage.

When it comes to food security status, households affected by HIV/AIDS had poorer consumption as compared to non affected households. This is revealed both by the consumption score which combined frequency of meals with diversity and the finding that more affected households had used negative consumption related coping strategies, like skipping meals, which undermine their nutrition.

The study also revealed some mitigation strategies observed in trying to reduce the impacts of HIV/AIDS on household food security and rural livelihoods. Some of them includes food for work being spearheaded by NGOs and the Government through gully reclamation and road construction e.g. along Mukumbura main road. The households are working very hard so that they receive food from the agencies because during drought times they will be hunger and starvation. BASO is embarking on the project in order to remove the donor syndrome amongst communities; food insecure households will be targeted to provide labour while receiving food handouts.

A wide range of drought mitigation strategies was found in the study and the majority of the households received food aid in times food insecure than any other strategies. According to UN/ISDR (2007), the drought measures often result in immediate effects on peoples' lives and livelihoods, for example, direct food aid distribution saves and benefits livelihoods in the short term. However these efforts also lead to dependencies and other new vulnerabilities and may not reduce the underlying vulnerabilities. This is also true in ward 2 as most of the households they are relying heavily on food aid from Care and Government. The households have become lazy and they lack creativeness and innovative.

Another mitigation strategy observed is the selling of livestock done by households in extreme cases of food insecurity. Although at times droughts affect livestock as well, the households have managed to sell one or two goats if drought occurs. The most sold animal being cattle thereby increasing vulnerability as they will be disposing the most valuable asset at a lower price due to

lack of markets. The majority of the households barter trade one cattle with a bag of maize in drought times of which it's unsustainable.

The results revealed that the households are facing a number of challenges in trying to reduce the impacts of HIV/AIDS on household food security and rural livelihoods and have contributed to the ineffectiveness of mitigation strategies. The respondents pointed out that stigmatisation and marginalisation of people, lack of adequate health care and social services, lack of relevant rural development policies, poverty, inadequate legal and policy framework, absence of HIV/AIDS policy implementation plans and lack of political will policies were the major challenges faced in trying to mitigate the impacts of HIV/AIDS.

### **5.3 Conclusion**

The evidence with respect to the impact of HIV/AIDS on food security remains scattered and incomplete. Most studies cover small areas, and many do not include a control or comparison group of households not affected by HIV/AIDS. Moreover, little is known about the effects of the epidemic over time. Nonetheless, the current evidence demonstrates that HIV/AIDS is having a crushing effect on agricultural production and the economic viability of AIDS-affected households in diverse areas of Africa.

The future impact of HIV/AIDS on agriculture will depend, among other things, on finding ways to reduce the amount of labour required, including introducing less labour-intensive methods of production and increasing yields with non-labour inputs. In many of the families most affected by HIV/AIDS, the agriculture sector was already under stress from desertification and government neglect of the traditional farming sector. The epidemic is intensifying labour shortages, increasing malnutrition and adding to the burden of rural women, especially those who head farm households.

## **5.4 Recommendations**

In light of the conclusions made in the study, it is recommended that:

- The government and non government agencies to incorporate HIV/AIDS issues into their core business. This will require analyzing not only the effects of HIV/AIDS but how a program can best address the effects.
- In order to address labour shortage faced by households, another important way to address it is to look into the ways the communities already use. For example in Zimbabwe, the 'Nhimbe' is a traditional mechanism whereby members of the community help a household during peak agricultural activities. This can be adapted and strengthened to help the households who face labour shortage.
- School support should be given to households whose children are absent from school. The appropriate form of school support needs to be worked out depending on the reason why the children are not going to school and depending on what form of assistance already exists.
- The training of the rural health extension workers should include nutritional counselling to PLHIV so that they can assist in applying the appropriate dietary and nutrition related practices to mitigate the effects of the illness and medication.

### **Possible areas for future research**

There is need for a more researched study on the impact of HIV/AIDS on food security in Zimbabwe; this may include a more quantitative aspect to complement qualitative studies.

The extent, to which households are aware of the nutritional contents, and therefore the value of traditional food, should be explored. From the interviews, it was evident that some household members were not aware of the nutritional value of some of the traditional food they consume and as a result this food was view as contingency measures in the absence of preferred foods, such as meat, even though meat was very scarce in these households.

The links between government support and possible sources of household livelihoods should be investigated to determine whether or not there is a crowding-out effect on other sources of livelihoods.

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## APPENDICES

### APPENDIX I: Questionnaire for Ward 2 of Mt Darwin Households

My name is Christopher Chivige. I am a final year student at Bindura University of Science Education doing an Honours Degree in Development Studies. I am carrying out a research on the effects of HIV/AIDS on food security and livelihoods in Ward 2 of Mt Darwin. I am kindly asking you to respond to the following questions honestly and faithfully. I assure you that all the information gathered will be used strictly for academic purposes.

Topic: Examining the effects of HIV/AIDS on food security and livelihoods.

#### 1.0 SECTION A: DEMOGRAPHICS (Tick the appropriate box)

1. Gender: Male  Female
2. Is the Household head  
Male  Female  Child
3. How old is the head of household  
Below 18  18-30  31-40   
41-50  51-60  Over 60
4. Educational level: primary  secondary  tertiary  none
5. Religion: Traditional  Christian  Islam
6. Marital status: Married  single  divorced  widowed
7. Number of people in the household.....
8. Number of family members who deceased because of HIV related diseases.....
9. Number of orphans.....
- 10 Number of meals per day.....



11. Approximate monthly income from all sources

a. \$100 and below

b. \$100-\$200

c. \$200-300

d. \$400 and above

12. Agricultural yield per year: low  medium  high

13 HIV status: -ve  +ve

If you are +ve does you suffer from depression as a result of stigma and discrimination:

Yes  NO

14. Antiretroval therapy/pysco-social group: Yes  No  Other illness

15 .Where do you get social support? Church  relatives  government or NGOs

16. Hospitalization by type of healthy facility.

a) Public hospital/clinic

b) Private hospital/clinic

c) Traditional healers

Thank you

**APPENDIX II: Questionnaire for key informants. National Aids Council (N.A.C) at both provincial (PAC) and district level D.A.C)**

1. What is the role of NAC in mitigation and prevention of HIV and AIDS
  - a) Programmes carried out by the organization at both provincial and district level in trying to compact the spread of HIV and AIDs
2. What is the current HIV prevalence and incidence in the district/province?
3. What is the impact of HIV/AIDS on the quantity of crops harvested households?
4. How is the quantity of household marketed crop produce being affected by HIV/AIDS?
5. What strategies are being employed by households to cope with and mitigate the impact of HIV/AIDS?
6. What are the necessary intervention strategies that can be implemented to reduce the impact of HIV/AIDS on communal agriculture?
7. What are the impacts of HIV/AIDS on small holder farmer's livelihood security?
8. To what extend are smallholder farmers affected by HIV and AIDS?
9. How do small holder farmers in Mt Darwin district coping with the impacts of HIV and AIDS?
10. What is the role played government, CBOs and NGOs combating the impacts of HIV and AIDS

### **APPENDIX III: Interview Guide**

1. What is the education level of the all members of the household?
2. What material assets does the household possess or own? List all the assets
3. What financial capital does the household possess or access to? List all.
4. Who in the household is able to work productively? Indicate the type work each member can do.
5. What resources (food and goods) does the household have access to? What are the sources of these resources?
6. How many members of the household died in the recent past or are suffering from a terminal illness? What illnesses were or are they suffering from?
7. What changes have been seen in the household since the illness and or death of the family member or members?
8. What has been or is the impact of the terminal illness and or death of a family member or members on
9. Has the death and or terminal illness changed the food resource flow in and out of the household?
10. How is the household coping with the current situation? List the coping strategies and the role of each household member.
1. How would the household like the community to prepare itself to assist the households affected with terminal illness and death of family members?
12. Which other stresses and shocks apart from terminal illness and or death has the household experienced or is experiencing now?

#### **APPENDIX IV: Observation Guide to the researcher**

- Forms of livelihood
- Dominant crops grown
- Mitigation strategies used
- Community representation