

# EXECUTIVE SUMMARY

## 1. INTRODUCTION

In February 2001, the Australian Agency for International Development (AUSAID) commissioned a study on the Economic Impact of HIV/AIDS on rural households, smallholder agricultural production and orphans in the Northern Province, South Africa.

The study/project took off by the end of February 2001 and it was expected to be completed at the end of February 2002. The project activities were managed by AUSAID in conjunction with the Joint Centre for Political and Economic Studies which coordinated the study together with six other related studies on the economic impact of HIV/AIDS and its impact on governance in South Africa.

The primary objective of this study was to determine the economic impact of HIV/AIDS on rural households orphans, and smallholder agricultural production in Northern Province, South Africa. The above objective was broken down into the following specific objectives :

- (i) To determine the economic impact of HIV/AIDS on rural household income, household expenditures, household savings, and household borrowings.

- (ii) To determine the economic impact of HIV/AIDS on smallholder agricultural production.
- (iii) To assess the impact of HIV/AIDS on orphanage care system in Northern Province.
- (iv) To determine the seroprevalence rates of HIV/AIDS in rural communities of Northern Province.
- (v) To make appropriate policy recommendations to mitigate the economic impact of HIV/AIDS on rural households, orphans and smallholder agricultural production in the Northern Province.

In this study both secondary and primary data were collected and used for the impact assessment. The secondary data were collected from various sources which included the provincial department of health, the provincial department of agriculture, statistics South Africa; and the tribal authorities of the various study sites.

The primary data were collected by means of household surveys, focus group discussions, interviews with orphan care givers and field interviews with selected policy decision-makers while HIV screening tests were conducted on few selected individuals. About 680 households were surveyed using an appropriate questionnaire to interview heads of rural households. A stratified random sampling technique was used for the household survey with five ecological zones of the Province constituting the strata. Households with chronically ill members and for those with premature adult deaths within the past two years were classified as "affected households"

The data obtained from our field surveys were processed and analysed and the results obtained are summarised below :

## **II. RESEARCH FINDINGS.**

### **A. IMPACT OF HIV/AIDS ON RURAL HOUSEHOLDS.**

Approximately 19 percent of the 680 households surveyed were classified as HIV/AIDS "affected households". This shows that one out of every five households surveyed can be classified as HIV/AIDS "affected". HIV/AIDS affected households had lower household size of 4.90, when compared with unaffected households with 5.20.

#### **(i) Impact on Household Income.**

HIV/AIDS affected households had on the average household income of about R13,000 per annum when compared with unaffected household having annual average income of about R20,066 for the year 2000. The decline in household income of affected households could be attributable to death of household members and/or chronic illness of some household members, which inevitably resulted in loss of jobs and loss of household income.

Statistical tests were carried out (using t-score statistics) to test for significant differences between the annual income of affected households and unaffected households. The results of the tests indicated that there were significant differences between these two annual incomes.

The per capita mean income of "affected household member" was estimated at R226 per month whereas the per capita income for a member of unaffected household was estimated at R330 per month. Each of this per capita income was less than R350 per month, which showed that the two categories (both affected and unaffected household members) were living below poverty line. The level of poverty was noted to be exacerbated by the impact of HIV/AIDS which has reduced the per capita monthly income by about 31 percent.

**(ii) Impact on Household Expenditure.**

When the monthly household expenditures of HIV/AIDS affected households were compared with those of unaffected households, it was observed that HIV/AIDS affected households spent more on medical care and hospital bills, transportation and funeral; but less on education, housing and remittances. Statistical tests were carried out using t-score and results of the tests revealed that there were significant differences in the amount spent on education by "affected household" (about R259 per month on education) and "unaffected household" (about R640 per month on education). There were no significant differences (P<0.05) observed for medical care cost, which is contrary to our 'a-priori' expectation.

### **(iii) Impact on Household Savings**

HIV/AIDS "affected household" had a mean household saving of about R367 compared with "unaffected household" that had a mean amount of R575. The decline in household savings of affected household represented about 36 percent loss of savings. Statistical tests carried out confirmed that there were significant differences in the savings of affected households when compared with those of unaffected households.

### **(iv) Impact on Household Borrowings.**

The results of our survey revealed that relatives constituted the most predominant source of loans to rural households. The mean amount borrowed by affected households (from relatives) was estimated as R923; while the mean amount borrowed from relatives by unaffected households was estimated as only R268. It is noteworthy that affected households borrowed amounts that were over 300 percent larger in size from their relatives when compared with loans obtained by unaffected household from the same source.

### **(v) Household Coping Strategies.**

Many affected households adopted some specific survival strategies to cope with economic impact of HIV/AIDS. These coping strategies included the following :

- sale of household assets such as cattle, goats, chicken to generate additional income to meet up household's cash;
- withdrawal of children from schools to forstall paying of school fees and their use in providing care for sick members of household;
- diversification of sources of household income with some household members getting engaged in informal trading such as selling of second hand clothes;
- sending children away to live with distant relatives to reduce family size and household living expenses; and
- joining church support groups in the village and burial societies.

## **B. IMPACT ON SMALLHOLDER AGRICULTURE.**

Only about 15% of total households surveyed were involved in smallholder agriculture. HIV/AIDS affected households' farm labour supply through death of household members and chronic illness, which incapacitated the family labour force. Since smallholder agriculture is labour intensive, the farm labour shortage engendered by HIV/AIDS impacted negatively on small holder agricultural production of the affected households.

### **(i) Reduction in Farm Size.**

The result of our survey revealed that HIV/AIDS affected households had an average farm holding of about 1.7 hectares which was smaller than 1.82 hectares owned by unaffected households. This reduction in farmholding was however not significant.

**(ii) Decline in other Farm Resource Ownership.**

In terms of other farm resources, the average cattle owned by affected household was found to be about 9; whereas unaffected household had a herd size of 12 cattle per household.

**(iii) Impact on Agricultural Production.**

HIV/AIDS affected households reported some decline in the crop output during the 1999 and 2000 production seasons. About 26 percent of the respondents indicated that the decline in their crop output was attributable to reduction in household farm labour force due to chronic illnesses or death of household members.

The HIV/AIDS affected households also reported substantial reduction in their livestock heads for the same period, due to sales of their livestock to raise money for medical and other household expenses and the slaughtering of their cattle or goats for use at funerals.

**(iv) Impact on Agricultural Income.**

The result of our analysis revealed that HIV/AIDS affected households had a mean agricultural income of R2984 per annum while unaffected households had a mean agricultural income of R3532 per annum. Furthermore the result indicated that HIV/AIDS affected households reported a twenty percent decline in agricultural income for the period of survey.

#### **(v) Coping Strategies of Smallholder Farmers.**

Some HIV/AIDS affected smallholder farmers adopted the following coping strategies :

- sale of farm assets such as cattle, goats, and chickens to raise cash to meet household expenses such as medical cost and funeral expenses.
- reduction in farm labour force; and
- withdrawal of children from schools to help in farm work and household chores.

#### **C. IMPACT ON ORPHANS.**

Three major problems were identified for HIV/AIDS orphans. These are :

- extreme vulnerability to all sorts of illnesses and risks in the communal areas;
- social stigmatisation by members of the village community; and
- distress and psychological impact suffered as a result of losing their parents.
- Socio-economic problems.

A case study of Takalani Children's Home which is an institutional orphanage revealed that this orphanage provides basic care and needs such as housing, feeding, clothing and other essential items for sustainable livelihood of the 25 orphans at the home. The orphanage also provides education and health care, sports and recreation facilities for these children.

The orphans at this home are not stigmatised since they mixed freely and they are well accepted by the local community. The reason for the community's acceptance may be due to the fact that it is not easy to link most of the orphans to HIV/AIDS affected parents.

The Tshakhuma home-based project, involving care of HIV/AIDS orphans by their grand parents, is a community-based project sponsored by an NGO called the Centre for Positive Care (CFPC). This NGO provides support of about R200 worth of food, clothes, and other items to each orphan every month. The home based orphan care was found to be cost effective in that it was estimated to cost about R327 per child per month as compared with Takalani Orphanage where the cost per child per month was estimated to be R1200. The major problem with the homebased care is that some of the children have adequate access to good health and education.

### **HIV Seroprevalence Surveys**

Results obtained for the HIV seroprevalence survey revealed that 61(30.5%) of the 200 individuals screened were HIV seropositive. 15(25%) of the total number of 60 males and 46 (32.5%) of the total number of 140 females screened were HIV seropositive. The major presenting symptoms among seropositive individuals were cough, pneumonia, diarrhoea and chest pains.

### **III. POLICY RECOMMENDATIONS**

The following policy recommendations are offered in this study.

## **A. HOUSEHOLD LEVEL POLICY RECOMMENDATIONS.**

- (i) There is a need to strengthen and expand the income base of rural households by diversifying the income sources and encouraging household members to supplement their income by getting involved in other jobs.
- (ii) Government is urged to set up micro-credit schemes for rural households to kick-start the development of small scale enterprises among rural households. This will provide employment for large number of rural households that are unemployed. It will also generate more income for rural households.
- (iii) Rural household income can also be enhanced if government sets up poverty eradication projects in rural areas. Such projects can focus on public works such as construction of rural infrastructures such as roads, primary health care clinics, among others. This will provide jobs and generate income for the households.

## **B. RECOMMENDATIONS ON ORPHANS.**

- i) The National government has the responsibility to provide for the HIV/AIDS orphan's welfare. The government should therefore provide special grants to HIV/AIDS orphans. This grant should be sufficient to cover orphans payment for healthcare, school fees, clothing, feeding and housing. The grants could be paid through

local government or through community based organisations in the same way as other state grants such as disability grants and old age pensions.

- ii) Home-based care for orphans should be strengthened by linking them with relevant CBOs and NGOs which should provide orphans with necessary access to good education and health care, which are sine-qua-non for good living

### **C. RECOMMENDATIONS ON SMALLHOLDER AGRICULTURE.**

- (i) Smallholder credit scheme should be established to help smallholder farmers to purchase improved farm inputs, which can be used to raise their crop output and agricultural income. This scheme can be a special loan programme under a micro-credit lending scheme.
- (ii) Smallholder farmers should form cooperative organisations to promote labour sharing and input purchases on group basis.
- (iii) Smallholder farmers should diversify their agricultural production system by producing crops that are less labour intensive and those crops that can earn them higher agricultural income. They should seek the advice of their local agricultural extension agents in the choice of crops for their diversification.

## **Recommendations on Sero-Prevalence Surveys**

Voluntary counselling and testing (VCT) centres should be set-up in rural areas because VCT, which is the hall mark of 'sero-prevalence' surveys, will serve to reveal the status of individuals and thus assist government in providing prompt and effective treatment as well as the continuum of care for positive cases.

### **(IV) CONCLUSION.**

This study has revealed that HIV/AIDS had some negative economic impacts on rural households, orphans and smallholders agricultural production system. Since the government has a responsibility for providing for the welfare of its citizens, government is therefore urged to play a major role in mitigating these adverse economic impacts of HIV/AIDS on rural households, orphans and smallholder farmers. Government needs the political will and commitment of resources, to implement some of the suggested mitigation strategies.

## CHAPTER 1

### INTRODUCTION

#### 1.1. The Basis for the Study.

The current world HIV/AIDS statistics is staggering. The Global Report of the Joint United Nations Programme on AIDS (UNAIDS, 2000) indicates that approximately 33.4 million people were living with HIV/AIDS by the end of 1999. Out of this estimate, about 22.5 million or approximately 68 percent of the HIV/AIDS-infected population could be found in sub-saharan Africa. This makes sub-Saharan Africa the global epic centre for the HIV/AIDS pandemic.

To date, the Republic of South Africa has the highest population of people living with HIV/AIDS. The recent South African Human Development Report describes the HIV/AIDS epidemic in South Africa as "the most tragic aspect of the social legacy of segregation; and one of the most daunting challenges facing the new South Africa" (Taylor 1998 p.8). The same report concludes that "HIV/AIDS represents a challenge to all South Africans; threatening to offset recent gains in human development, and this underlines the urgency of effective prevention, changes in human behavior and attitudes in order to combat the HIV/AIDS pandemic and also mitigate its effect." Given the above HIV/AIDS challenges, this study was undertaken to provide some data base which are needed in understanding the economic impact of HIV/AIDS in South Africa by focusing on Northern

Province as a case study. It is hoped that this study will provide the empirical basis for mitigation policies and programmes on HIV/AIDS in South Africa.

The research project is titled "The Economic Impact of HIV/AIDS On Rural Households, Orphans, and Smallholder Agricultural Production in Northern Province, South Africa" The study was commissioned by the Australian Agency for International Development (AUSAID) in February 2001 and it was expected to be completed by the end of February 2002. The project's activities were managed by AUSAID in conjunction with the Joint Centre for Political and Economic Studies, which coordinated this study together with six other related studies on "The Economic Impact of HIV/AIDS And its Impact on Governance In South Africa".

## **1.2. Research Questions**

Four research questions were posed for our empirical investigations in this study. These are :

- (a) What are the economic impacts of HIV/AIDS on rural households in the Northern Province of South Africa?
- (b) What are the economic impacts of HIV/AIDS on smallholder agricultural production in the Northern Province?
- (c) What are the impacts of HIV/AIDS on orphans in the Northern Province?
- (d) What are the prevalent rates of HIV/AIDS in rural areas of the Northern Province?

### **1.3. Research objectives.**

Given the above research questions the following are the specific objectives of this research study :

- (a) To determine the economic impact of HIV/AIDS on rural households specifically by assessing the impact on household income, household expenditures, household savings and household borrowings.
- (b) To determine the impact of HIV/AIDS on smallholder agricultural production and agricultural income.
- (c) To determine the impact of HIV/AIDS on orphanage care systems in the Northern Province.
- (d) To determine the prevalence rates of HIV/AIDS in rural communities of the Northern Province.
- (e) To make appropriate policy recommendations to mitigate the economic impact of HIV/AIDS on rural households, orphans and smallholder agricultural production in the Northern Province.

### **1.4. Research Hypotheses.**

The following research hypotheses were tested in this study.

#### **(a) Income hypothesis**

HIV/AIDS affected households have an average annual income that are lower than those of unaffected households.

**(b) Savings and borrowing hypothesis.**

HIV/AIDS affected households have smaller annual savings but higher annual borrowings as compared with unaffected households.

**(c) Expenditure hypothesis**

HIV/AIDS affected households spend a higher proportion of their income on medical care and hospital bills, but a smaller proportion on school fees, as compared with unaffected households.

**(d) Agricultural productivity hypothesis**

HIV/AIDS affected households have smaller annual agricultural production which manifests in form of smaller agricultural income when compared with unaffected households.

**(e) HIV/AIDS gender prevalence hypothesis**

The prevalence rates of HIV/AIDS in rural communities of the Northern Province are higher among females than among males.

**(f) Orphanage care hypothesis**

Home based family support system is more cost effective than institutional orphanage care system (cost effectiveness to be measured as care and development cost per child per annum).

**1.5. Plan of this Report.**

This report is divided into ten chapters. The first chapter focuses on introduction to the study; the second chapter presents some background

information on the socio-economic conditions prevailing in the Northern Province as a prelude to an understanding of the empirical impact analysis. Chapter three presents a review of literature and some "a-priori expectations" of the impact of HIV/AIDS on rural households, children, including orphans; and the impact on small holder agricultural production in the Northern Province. The details of our research methodology are presented in chapter four; this chapter presents the sources and types of data collected, sampling techniques used for the primary data collection through cross sectional survey of rural households as well as the use of consent forms and appropriate questionnaires. The methodology also includes focus group discussions, the use of orphan care questionnaire as well as those for policy makers. The limitations of the data and some problems encountered during the study are also discussed in this chapter.

In Chapter five, we present some empirical results of the socio-demographic characteristics of the rural households in Northern Province. These include marital status of households heads, gender and age of heads of households; level of education, average size of households affected with HIV/AIDS as compared with "unaffected households" and the reasons given by some respondents for the change in their household sizes.

Chapter six presents in some detail the empirical results of the economic impact of HIV/AIDS on rural households. These include the impact on household income, household expenditures; household savings, and household borrowings.

In chapter seven the empirical results of the impact of HIV/AIDS on small holder agricultural production are presented. This chapter also summarises the agricultural resource situations and compares the agricultural income received by affected households and unaffected households. The reasons cited for change in agricultural production among HIV/AIDS affected households were also analysed in this chapter.

Chapter 8 presents the impact of HIV/AIDS on orphans by comparing two case studies of Takalani Children Home - an institutional care giver, and home-based care givers at Tshakhuma Village in Venda area.

Results of the HIV screening tests of selected households are presented for Bela Bela and Venda areas in Chapter 9. These results are discussed and compared for the two selected areas of Bela-Bela (Warmbath) and Venda.

Chapter ten presents some policy perspectives on the HIV/AIDS in South Africa. These perspectives include an assessment of the government policy on HIV/AIDS awareness, prevention, education, treatment and control. Such policies are evaluated at provincial and national levels. The chapter also presents our specific policy recommendations to mitigate the economic impact of HIV/AIDS on rural households, orphans and smallholder agricultural production. This chapter concludes the study and identifies the areas for further studies.

## **CHAPTER 2**

### **SOME BACKGROUND INFORMATION ON THE RURAL ECONOMY OF NORTHERN PROVINCE.**

#### **2.1. Preliminary Consideration.**

The purpose of this chapter is to present some background information on the rural economy of Northern Province. These information include the nature of the Provincial population in terms of its rurality, growth rates, gender as well as these age distribution. Also discussed are the problems of unemployment and poverty among the rural population. The above information are provided as necessary backgrounds to the full understanding of the socio-economic conditions accentuating the spread of HIV/AIDS in the Northern Province. Also discussed in this chapter is the trend in HIV prevalence rates observed for the Northern Province for the past decade. Lastly, the features of the rural households of Northern Province are summarised to provide some background information for the impact assessment carried out in subsequent chapters.

#### **2.2. The Nature of the Provincial Population.**

Since the HIV/AIDS pandemic affects human population, it is important to provide some background information on the pertinent characteristics of the human population of Northern Province.

The Northern Province is predominantly a rural Province, with an estimated population of about 5.2 million people by 2000. This makes Northern Province the fourth largest province in South Africa; following Kwazulu Natal, Gauteng and Eastern Cape in that order of population ranking.

Northern Province at present has an estimated population growth rate of 2.3 percent per annum and a population density of 42 persons per Km<sup>2</sup> (DIBU, 2000). Majority of the population consists of young people who live mostly in rural areas.

Northern Province has an estimated total fertility rate (TFR) of 3.1%; and a high infant mortality rate estimated at 54 person per 1000 (DIBU, 2000). This high infant mortality rate can be attributed to poor medical facilities in the Province.

Besides the fact that the population of Northern Province is predominantly rural, another significant feature of this population is that it consists mainly of young people. The 1996 census indicates that 43 percent of the Northern Province population were less than 15 years of age. These young people tend to be particularly vulnerable to the HIV/AIDS pandemic, since many of them are sexually active and carefree about their sexual behaviour.

Another significant feature of the population of Northern Province is that it consists of more females than males. Table 2.1. presents some details of the Northern Province's population for the period 1991 to 1998. A close study of table 2.1. would reveal that in 1991, out of total population of about 4.3

million, about 2 million were females, thus accounting for about 55% of the population.

Table 2.1. : Population Estimates of Northern Province by Gender (1991-1998).

Year	Male	Female	Total
1991	1957900	2404100	4362200
1992	2023300	2465200	4488500
1993	2090900	2527900	4618800
1994	2160700	2592100	4752800
1995	2232800	2657900	4890700
1996	2253072	2676296	4929368
1997	2307300	2725400	5032700
1998	2383200	2794500	5178700

Source: Central Statistics (June 1998)

By 1998 however, the female population had increased to about 2.79 million people, and this accounted for about 54 percent of the total population.

### **2.3. Problems of Unemployment and Rural Poverty in Northern Province.**

The two fundamental socio-economic problems facing the rural population of Northern Province are unemployment and rural poverty. Although unemployment is a major problem confronting the entire country, Northern Province has a lion's share of this problem; it recorded the second highest rate of unemployment, which was estimated at about 46 percent during the 1996 census. Table 2.2. presents the unemployment rates of Northern Province in comparison with other provinces of South Africa.

Table 2.2. : Unemployment Rates in Northern Province compared with other Provinces of South Africa.

Province	Unemployment Rates (%)
Eastern Cape	45.9
Northern Province	39.1
Kwazulu Natal	37.7
North-West	48.4
Mpumalanga	32.8
Free State	29.8
Northern Cape	28.4
Gauteng	28.1
Western Cape	17.8
<b>Total South Africa</b>	<b>33.8</b>

Source : DIBU (2000)

(Derived from 1996 census figures by Development Business Information Unit of Development Bank of South Africa)

A close observation of table 2.2. reveals that the unemployment rate for South Africa was estimated at 33.8 percent; while those of the provinces vary from 48 percent for Eastern Cape, to 17.8 percent for Northern Province, and only 17.8 percent for Western Cape which has the least rate of unemployment. The nature of unemployment in the Northern Province is further examined.

Two major factors should be noted with respect to the problem of unemployment among the population of Northern Province. The first is that unemployment is more pronounced in rural areas than in urban areas, due to lack of industries and other viable employment opportunities in these areas.

The second factor of significance is that unemployment is more pronounced among females given the fact that female unemployment in Northern Province was estimated to be as high as 61 percent during the 1996 census survey. The lack of employment opportunities among rural females leads to lack of basic means of sustenance which is a major feature of rural poverty among the women.

The second problem facing the rural population is poverty. Table 2.3. compares the poverty rates in Northern Province with those of other provinces in South Africa. A close observation of this table would reveal that the poverty rate in Northern Province was ranked the second highest in the country. The Northern Province has a poverty rate of 77% which reveals that three out of every four persons in the Province can be regarded as poor since they live below the poverty line. The main reason for the widespread poverty in the province is attributable to lack of employment opportunities, to generate adequate cash income for the majority of the population.

Table 2.3.: Poverty Rates in Northern Province compared with other Provinces of South Africa.

Province	Poverty Rates %
Gauteng	19
Western Cape	23
Mpumalanga	52
Northern Province	77
North-West	57
Free State	66
Eastern Cape	78

Source : May, *et. al.* (1998). "The State of Poverty in South Africa", Office of the State President, National Government, Pretoria.

The above two problems of rural poverty and unemployment create serious social problems for the provincial population. These social problems include, rape, prostitution and drug abuse, all of which accentuate the spread of HIV/AIDS pandemic in the Province.

### **2.3. Problems of HIV/AIDS and the HIV Seroprevalence Rates in the Northern Province.**

Over the past decade, the devastating effects of the HIV/AIDS pandemic on the human population of South Africa has led both the provincial and national governments to conduct HIV seroprevalence surveys to determine the HIV prevalence rates in the various provinces of South Africa.

These seroprevalence surveys are based on data obtained from antenatal clinics hence they are biased towards women. These data are however the

most reliable source of information on the HIV/AIDS prevalence rates in the country. Table 2.4. presents the trend in the prevalence rates of HIV at national level compared with Northern Province for the period 1990 to 2000.

Table 2.4 : HIV Prevalence Rates in the Northern Province Compared with National Rates.

<b>Year</b>	<b>Northern Province (NP)%</b>	<b>(National) S.A. (%)</b>
1990	0.53	0.76
1991	0.55	1.35
1992	2.42	2.56
1993	4.10	4.225
1994	3.04	7.57
1995	4.89	10.44
1996	7.96	14.17
1997	8.20	16.01
1998	11.5	22.8
1999	11.4	22.4
2000	13.2	23.5

Source : Dept of Health and Welfare Northern Province, Pietersburg (2001)

A close observation of table 2.4. reveals a rapidly increasing trend in the HIV prevalence rate for Northern Province and for the entire Republic of South Africa. The prevalence rate for the Northern Province rose from less than 1 percent in 1990 to about 13.2 percent by the year 2000. The national

HIV prevalence rates showed more dramatic increases (from less than 1 percent in 1990 to about 23.5 percent by the year 2000). Figure 2.1. further illustrates this rapidly increasing trend in the HIV prevalence rates for Northern Province and for the entire country. (Department of Health, 2000).

**Figure 2.1. N.P versus NATIONAL HIV TRENDS**

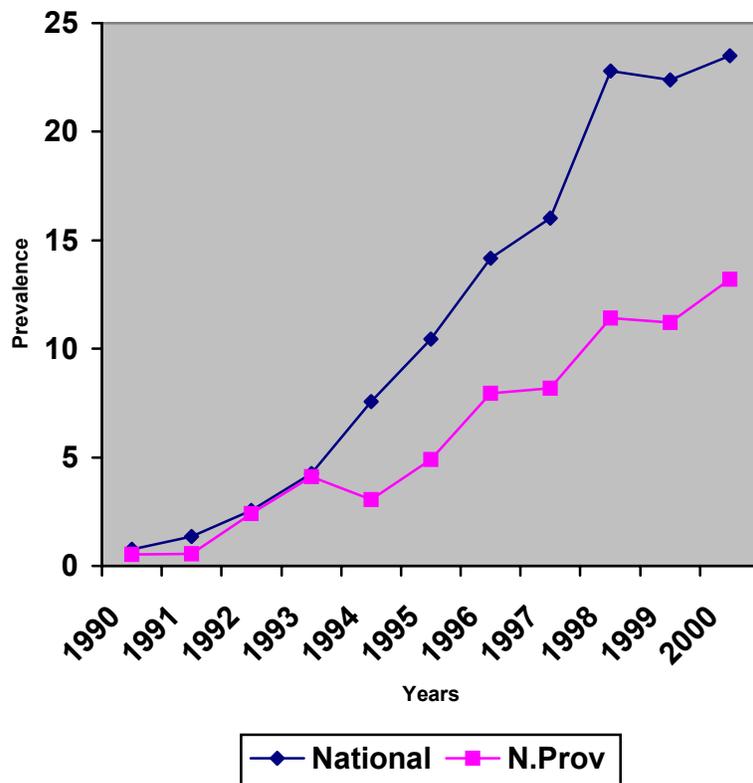
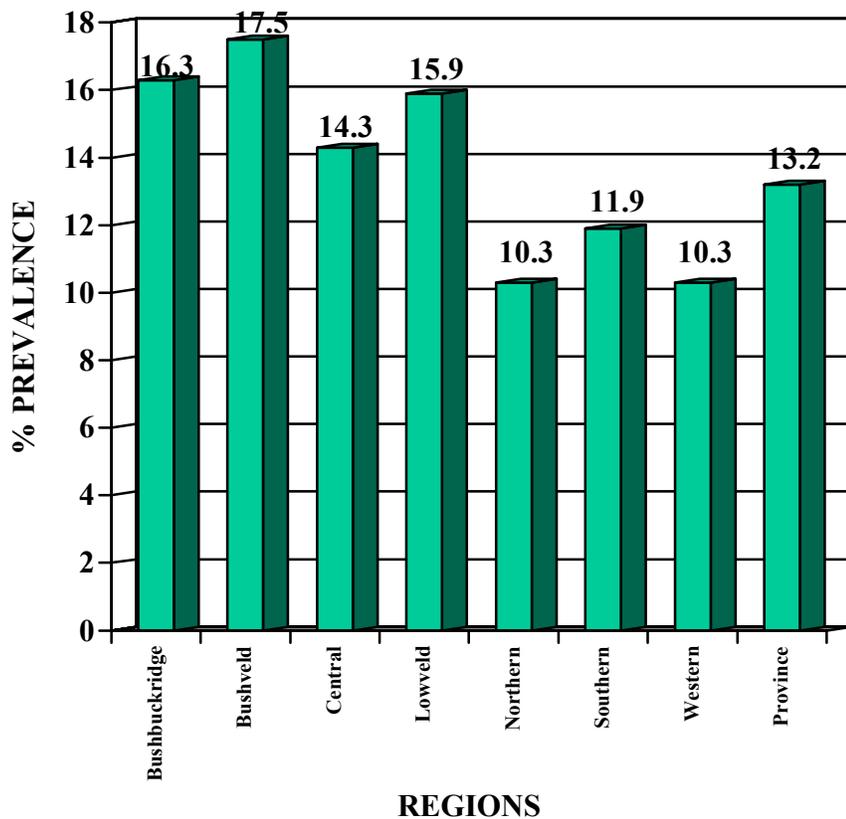


Figure 2.2.: 2000 HIV/SYPHILIS SEROPREVALENCE SURVEY RESULTS BY REGION



Source : - Department of Health, 2000.

It is important to note that there are regional differences in the HIV seroprevalence rates even within the Northern Province. The results for year 2000 survey is presented in figure 2.2. to show regional variations in the prevalence rates of HIV. It can be observed from figure 2.2 that Bushveld region has the highest rate of about 17.5 percent, whereas Northern region and Western region each had the least HIV prevalence rates of 10.3 percent for the year 2000.

It is therefore apparent from these statistics of the HIV seroprevalence that the HIV/AIDS pandemic constitutes a major threat to the human population, not only in the Northern Province but to the entire nation of South Africa. The impact of the rising trend of HIV/AIDS therefore needs to be assessed. This is the rationale for undertaking this study which focuses on the impact of HIV/AIDS on rural households in the Northern Province of South Africa. A brief discussion of the features of rural households of Northern Province is presented in the last section of this chapter as our logical starting point.

#### **2.4. Features of Rural Households of Northern Province.**

Although HIV/AIDS epidemic affects all sectors of the population, poor rural households appears to carry the greatest burden; the reason for this may be due to their poverty or their poor resource base, which makes it very difficult for them to cope with the disease. Since our study focuses on rural households, it is important to summarise some of the observed features of rural households of Northern Province. These features include the following :

- Unemployment is very high among rural households in the Northern Province
- Majority of the rural households live below poverty level since many of them earn little or no regular income to sustain their livelihood.
- Many households live in traditional dwellings.

- Some households depend on migrant male workers who occasionally remit part of their little earnings to support the rural household members.
- Most households in the rural areas have poor health facilities, poor infrastructures in terms of roads, portable water supply and telephones.
- The three fundamental problems facing many rural households are poverty, unemployment and HIV/AIDS.
- Stigmatisation associated with HIV/AIDS is a common problem among rural households of the Northern Province.

## CHAPTER 3

### CONCEPTUAL FRAMEWORK AND REVIEW OF LITERATURE

#### 3.1. Introduction

The objectives of this chapter are twofold : The first is to present the conceptual framework for our empirical assessment; and the second is to review some previous studies on the economic impact of HIV/AIDS in sub-Saharan African. In presenting the conceptual framework of our analysis, we will provide some definitions and discussions of "households" by making a clear distinction between HIV/AIDS "affected households" and "unaffected households". The conceptual framework will also identify some 'a-priori' expectations of the potential impacts of HIV/AIDS on households, children (including orphans) and small holder agricultural production.

The review of literature will focus on those pertinent empirical studies dealing with economic impact of HIV/AIDS in Sub-Saharan Africa. This is necessary to provide the basis for comparison with our findings in this study.

#### 3.2. Conceptual Framework.

Three major concepts are presented here for our discussion. These are households and their economic functions; distinction between HIV/AIDS "affected households" and "unaffected households"; and some 'a-priori'

expectations of the potential impacts of HIV/AIDS on rural households, children including orphans and smallholder agricultural production.

### **3.2.1. Defining and Explaining Households**

The logical starting point of our assessment of any economic impact on households is to truly understand the concept of households. Many definitions of households can be made but the most appropriate definition is the one that focuses on household as an economic unit. Two of these definitions are considered here. Mutangadura and Webb (1999) in their study of the socio-economic impact of HIV/AIDS on households in Zambia defined household as "an economic unit consisting of a group of persons who live in the same dwelling, and dine together for at least 3 of the 12 months in a year". This definition of household perceives household only as a unit of Consumption.

Another definition of household by (Rugalema (1998) defines a household as an "economic unit consisting of either single person, or a group of persons who live together; depend on a common income, and within the limits of that income, exercise a choice with a view of meeting specific objectives"

The household's specific objectives vary from mere survival to the attainment of highest level of material welfare or affluence. From the above definitions we can summarise as follows :

- Households are economic units just as businesses and governments are economic units.
- Households make choices and decisions on how to allocate their resources; and these household resources may include labour, land and capital in its various forms as well as entrepreneurship.
- Households as production units may be involved in the production of various goods and services at the household level. These goods and services may include agricultural products or manufacturing products as well as services in their various forms.
- Households as consumption units may use their resources (income) in purchasing goods and services needed to meet their consumption satisfaction or utility.
- Most rural households in sub-Saharan Africa are therefore perceived as primary units of production and consumption.
- Since most rural households in Sub-Saharan Africa behave as consumers and producers, the impact of HIV/AIDS on rural households would affect household consumption and production decisions; and both decisions affect rural households' well-being and household livelihood.

### **3.2.2. Distinction between HIV/AIDS Affected Households and Unaffected Households.**

As a result of the social stigma attached to the HIV/AIDS pandemic, identifying HIV/AIDS affected household members is a very difficult task in most African communities. This is because the relevant health

institutions and members of affected households are very sensitive and are unwilling to discuss or give HIV/AIDS related information about family members. Even health officials who are aware of the HIV status of some household members would bluntly refuse to give out such information because of the ethical issues involved and the need to maintain the confidentiality of their patients health status.

Besides the above mentioned problem, there is a lot of confusion in clearly defining HIV/AIDS "affected households" versus "unaffected households". This confusion arises from the fact that members, age, and stages of HIV-diseased individuals form a continuum that could not be easily identifiable by a "yes" or "no" approval; this is exacerbated by the social stigma attached to the HIV/AIDS by the community. As a way of circumventing this problem we have adopted the approach used by some previous researchers such as Mutangadura and Webb (1999) in their study on the economic impact of HIV/AIDS in Zambia. Based on this approach we define HIV/AIDS "affected households" explicitly as follows :

- A household is an economic unit consisting of a group of persons who live in the same dwelling, and dine together for at least 3 of 12 months (before a study is conducted)
- Adult mortality and morbidity in households will be used to separate "affected" from "unaffected" households.
- Affected households are those households that have suffered premature adult death; and or chronic illness associated with HIV/AIDS related conditions.

- Chronic illness means chronically ill for at least the past 30 days prior to the survey.
- An adult is defined as an individual aged 18 or above.

This is the definition that was applied for our field survey and data collection exercise.

### **3.2.3. Potential Impact of HIV/AIDS on Rural Households, Children and smallholder Agricultural Production.**

The devastating impacts of HIV/AIDS can take several forms but since the focus of this study is to assess the economic impact of HIV/AIDS on rural households, orphans and smallholder agricultural production, the main forms of impacts that we conceptualise here are primarily economic. Based on previous studies conducted on HIV/AIDS in sub-Saharan Africa, particularly those of Barnett and Blaikie (1992) and Hunter and Williamsen (1977) we have identified some potential impacts of HIV/AIDS and presented them in Figure 3.1. A close observation of this figure will show that HIV/AIDS through morbidity and mortality of members of households would generate the following economic impacts on households :

- reduction in household labour force, as a result of death or chronic illness of members of household;
- reduction or loss of household income arising from death of household breadwinners, lower remittances from persons with HIV/AIDS; and loss of jobs;
- changes in household expenditure patterns, manifesting in form of increased expenditures on medical care, transportation cost, and funeral expenses as well as reduced expenditure on education;
- reduction in household savings (including desaving);

- sale of household assets, including production and consumption assets; and
- increase in household debt or borrowings.

Figure 3.1. Potential Impact of HIV/AIDS on Households, children (Orphans) and smallholder agricultural production.

Potential Impact on Households	Impact on Children	Impact on Smallholder Agricultural Production.
<ul style="list-style-type: none"> <li>• Reduced Households Labour Force (due to chronic illness, death of members, loss of labour time, etc).</li> <li>• Reduced Household Income (due to death of household members, lower remittances from persons with HIV/AIDS, loss of jobs)</li> <li>• Increased Household Expenditures on medical Care.</li> <li>• Decreased Household expenditure on Education.</li> <li>• Reduction in Household saving (including desaving)</li> <li>• Sale of Household Assets.</li> <li>• Increased in Household Borrowings (loans or debt)</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of Educational opportunities for children (children withdrawn from school)</li> <li>• Increased use of child labour at home.</li> <li>• Children lose parent (orphaned)</li> <li>• Children enter labour market at early age</li> <li>• Antisocial behaviour among children</li> <li>• Emergence of child-head Households.</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of farm labour force leading to labour shortage for farming.</li> <li>• Reduced Agricultural Income.</li> <li>• Reduction in areas cultivated.</li> <li>• Reduction in farm productivity and range of crops grown.</li> <li>• Reduction in livestock numbers (due to sale to cover medical expenses)</li> <li>• Sale of farm implements.</li> <li>• Reduced farming activities.</li> </ul>

The potential impact of HIV/AIDS on children can be conceptually identified as follows (see figure 3.1.) :

- loss of educational opportunity for children, as affected households would withdraw children from schools to assist in caring for the sick; and to stop paying school fees;
- increased use of child labour at household level;
- children become orphaned due to death of one parent or both parents;
- children enter labour market at early age;
- children start anti-social behaviour including criminal activities such as prostitution, drug abuse, stealing, etc; and
- emergence of child-headed households.

The potential impact of HIV/AIDS on smallholder agricultural production as identified in figure 3.1 are :

- loss of farm labour force, arising from death of household members involved in farming or due to chronic illness which incapacitates some household members;
- loss of agricultural income, arising from reduction in agricultural products offered for sale;
- reduction in farm areas cultivated;
- sale of farm implements;
- reduction in farm productivity and range of crops grown by smallholders;

- reduction in livestock numbers owned (due to sale of livestock to cover medical expenses); and
- reduced farming activities due to shortage of labour and other agricultural inputs.

Some of these identified potential impacts of HIV/AIDS constitute the basis of our 'a-priori' expectations of our results on the impact of HIV/AIDS on rural households orphans and smallholder agricultural production in Northern Province.

### **3.3. Review of Previous Studies on Economic Impact of HIV/AIDS.**

A large number of literature exists on the socio-economic impact of HIV/AIDS in Sub-Saharan Africa. Of recent, a very comprehensive review of this literature was undertaken by Parker, *et al.* (2000) under the aegis of the Centre for AIDS Development, Research and Evaluation (CADRE), on behalf of USAID through the Joint Centre for Political and Economic Studies. A brief overview of this review, as well as other pertinent studies indicates that majority of these literatures are on East African and other SADC countries with very few of them focusing on South Africa (Broomberg *et al.* 1991; Doyle, 1991; Mutangadura and Webs 1999).

The main criticisms of these studies are that they are mostly specific case studies which provide empirical data for specific locations within particular countries; as such, their findings cannot be generalized for the particular country of focus nor for other countries within the SADC. Regardless of

the above limitations, we can independently establish from these studies some common characteristics which distinguish rural households that have suffered from the HIV/AIDS pandemic in sub-Saharan Africa. These characteristics were summarized by Stover and Bollinger (1999) as follows :

- loss of income, from less labour time, or from lower remittances of the person with HIV/AIDS ( who is frequently the main bread winner);
- increase in household expenditures for medical expenses;
- Decrease in household savings and
- other members of the household, usually daughters and wives, may miss school or work in order to take care of the sick; and death resulting in permanent loss of income, funeral and moving costs; and the removal of children from school in order to save educational expenses and increase household capacity; with the consequence of loss of future earning potential.

Another major weakness of most of these previous studies on household impact is that they are rather qualitative in assessment; and in some cases, limited in size. The few studies that have quantitative assessment include those of Mutangadura and Webb (1999) and Rugalema (1998).

The study conducted by Mutangadura and Webb in Zambia, which focused on the socio-economic impact of HIV/AIDS, showed a decline in the annual income of affected households; the study by Ragalema, which was conducted in Tanzania, revealed that HIV/AIDS affected households sold off their

productive assets to generate cash to pay off hospital bills. Our present study provides some quantitative impact assessment of rural households in the Northern Province, by focusing on more economic parameters such as effects on household income, household expenditures, household savings and borrowings.

The links between rural households micro impact studies and sectoral impact assessment could be revealed by simultaneously assessing rural households and smallholder agricultural production systems. This is perhaps the reason why most previous studies have been conducted in rural settings. Our study was designed to combine rural households impact assessment, with those of smallholder agricultural production systems using the FAO recommendations, which called for the use of this multi prong approach in the study of economic impact of HIV/AIDS on rural households.

Children who are orphaned by the HIV/AIDS epidemic constitute a social problem, which is of primary concern to policy makers in many developing countries in Africa. Many of these children may become destitute, hungry, exploited, and in some cases, abused and completely left very vulnerable to all types of crime, including child prostitution and drug abuse. The growing number of children bringing up children in many South African households creates the need for some urgent research activities on HIV/AIDS orphans and their socio-economic impacts assessment. In South Africa, a recent study by McKerrow *et al.* (1996) focused on a rapid appraisal of orphans living with AIDS. This study provided some recommendations on the levels and programmes for interventions on orphans. Also pertinent for orphans

consideration is the current study by HEARD at the University of Natal which attempts to quantify the costs of orphans care systems. Our study therefore provides some information on orphan care systems in the Northern Province by using case study approach.

In summary, the trumpcard of our study is that we have simultaneously investigated the impact of HIV/AIDS on rural households, smallholder agricultural production and orphans care system as well as HIV seroprevalence rate in the Northern Province.

## CHAPTER 4

### RESEARCH METHODOLOGY

#### 4.1. Data Types and Sources

This study relied on two types of data : secondary data and primary data. The study used mainly primary data, which have been supplemented by secondary data to provide the basis for our analysis and our empirical findings.

The secondary data included demographic information for the various regions in the province and prevalence rates of HIV/AIDS. These HIV/AIDS prevalence data were obtained from the 1999 and 2000 annual reports of HIV/Syphilis seroprevalence surveys, provided by the Epidemiological Units of Department of Health, Northern Province, South Africa.

The Provincial Department of Agriculture, Northern Province, provided some information on smallholder agricultural production for the various regions of the Northern Province while the tribal authorities for the selected study sites provided the demographic data on each selected village. The demographic data included estimated population of each village, total number of households; number of health clinics; number of primary and secondary schools. Most of these secondary data were used as logical starting points for the survey.

The second category of data comprised primary data which, provided the database for this study. Our primary data collection involved household survey of households orphanage and as well as policy makers; focus group discussions; and HIV screening tests. Each of these primary sources are discussed briefly below.

#### **4.2. Household Survey for Primary Data Collection.**

The household survey was undertaken to generate the bulk of the primary data used for this study. A cross sectional rural household survey was carried out for the Northern Province using well designed household questionnaires, which covered both quantitative and qualitative aspects of household information. A stratified random sampling technique was adopted for this survey, using the five agro-ecological of the province regions as our strata. Since the rural and urban populations of the Province are distributed along agro-ecological regions, our sample was stratified on agro-ecological basis. A random sampling was carried out within each agro-ecological zone. The five selected agro-ecological areas are described below (see figure 4.1.).

##### **(i) Messina Area**

This area represents the northernmost part of Northern Province. The Messina area is the main entry point into South Africa from the north. Messina is located around the Limpopo Valley and for this area, Matswale and Harper Villages were selected for our survey.

**(ii) Warmbath Area**

Warmbath area was selected to represent the southern part of Northern Province. Warmbath is an important tourist centre and holiday resort, with a warm climate and international flow of tourists. It is located in the Bushveld region thus making it an ideal sample to be included in the survey. Bela-Bela village was selected as the study site in the Warmbath area.

**(iii) Giyani Area.**

Giyani area was selected to represent the lowveld or Olifant region. Giyani is close to the Olifant river which stretches from Giyani through Kruger National Park. Two villages, Ngobe and Sikhiyani, were selected from Giyani area.

**(iv) Seshego Area**

This area was selected to represent the Capricon region or the central region of the Northern Province. Moletsi village was chosen as the rural site for the survey.

**(v) Tshakhuma/Venda Area.**

Tshakhuma village was selected to represent the Venda area. This is good agricultural trade area with rich African culture and tradition.

### 4.3. Field Visits and Sample Size.

Preliminary visits were made to each of the selected villages by members of the Research Team. During these visits, the objectives of the study were discussed with village authorities and their permissions and approval were obtained before visiting and selecting the households for the survey. A list of households for each village was obtained and from this list, a randomised sample of households was selected for each village. The total sample size for all households in the five areas was 680. Table 4.1. presents the distribution of samples among the five selected areas of the Province.

Table 4.1. Sample Size Selection by Areas/Regions

Area/Region	Villages	No of Respondents Selected	% of Total Sample Size	Number of Clinics
Messina Area (Northern Region)	Matswale	120	17.65	0
	Harper	45	6.61	0
Giyani Area (Low Veld Region)	Ngobe	100	14.71	1 (Government owned)
	Sikhunyani	30	4.41	0
Seshego Area (Central Region)	Moletsi	120	17.65	1 (Government owned)
Venda Area (Northern Region)	Tshakhuma	130	19.12	1 (Government owned)
Warmbath Area (Bushveld Region)	Bela-Bela	135	19.85	1 (Government owned)
TOTAL	7 villages	680	100.00	4 Clinics (Government owned)

Source : Field Survey 2001

#### **4.4. Ethical Clearance and Informed Consent.**

It was absolutely necessary that ethical clearance and informed consents of household heads were obtained before conducting any field interview. This issue was stressed when we trained our field enumerators for the household survey and we subsequently designed appropriate informed consent forms that was signed by each respondent prior to actual interview. Also, due to the human nature of the research, the issue of ethical clearance and confidentiality of information supplied were seriously maintained and strictly adhered to throughout this study. Anonymity of information was equally maintained throughout our analysis and in our report writing. Prior to commencement of actual field survey, ten field enumerators were recruited and trained together with post graduate students on the household questionnaire administration and field interview techniques. The questionnaire was pre-tested and modified and the trained enumerators for the various sites conducted the field survey for the period between July and September 2001.

#### **4.5. Focus Group Discussions.**

In addition to household survey, focus group discussions were held in selected village sites between August and September 2001. Each focus group panel consisted of 8 to 10 selected adults in the village. The group included the village head, the civic leader, the Councilor, representatives of the orphan support group and surveyed households; the village-based professional nurse, and youth leader. The focus group discussion had a

trained facilitator who used a tape recorder to record the discussions. The focus of each discussion was on HIV/AIDS and the community's perception of its prevention, awareness, control and coping strategies.

#### **4.6. Orphanage Survey and Policy Makers Interviews**

Questionnaires were designed to obtain relevant information about care support groups and orphan care support systems at the selected village sites. These questionnaires were administered to few selected care givers at Takalani Children's Home and at Tshakhuma Village in Venda Area.

Policy makers' questionnaires were also designed and administered to few selected policy makers in an effort to obtain their responses to government policy and programmes on HIV/AIDS.

#### **4.7. HIV Screening.**

HIV screening tests were conducted in two of the selected sites (Warmbath Area and Venda Area) using Oral Quick HIV Test Kit based on the use of saliva. The screening tests were carried out according to the manufacturer's instructions with a sample of 200.

#### **Nested Polymerase Chain Reaction (PCR) Test**

Seropositive status of study subjects was confirmed by nested reverse transcriptase polymerase chain reaction (RT-PCR). First and second round primers were ED5/ED 12 and EST/E8 respectively. Amplified product of

approximately 700 base pairs, spanning the env V3-V5 region was visualized with ultraviolet light after staining with ethidium bromide.

#### **4.8. Data Processing and Analysis**

Analysis of data was carried out using the Statistical Package for Social Sciences. (SPSS) The estimated statistics included the means, standard errors, standard deviation and the ranges. Statistical tests of significance were carried out, to test some of the hypotheses. Z-scores and t-tests statistics were used at 5 percent level of significance.

#### **4.9. Problems Encountered in the study.**

Our research team encountered three major problems during the study. These are (a) the social stigma attached to HIV/AIDS, (b) data processing and (c) poor access to rural areas.

##### **(i) Problem of Social Stigma Attached to HIV/AIDS**

As a result of social stigma attached to HIV/AIDS at community level and the sensitivity of the issue of HIV/AIDS at government levels, the study team encountered considerable difficulties in persuading people to co-operate with us in providing data or solicited information for the study. A lot of people viewed the study with suspicion and it required considerable efforts on the part of the researcher, to persuade these people to provide the required information for the study.

**(ii) Data Processing Problem.**

Our research team had considerable difficulty in our data processing as we could not easily obtain SPSS package needed to process our data. This caused some delay in our data entry and analysis.

**(iii) Poor Access to Rural Areas.**

The poor network of roads in the rural areas of Northern Province created some problems of movement for the research team in accessing some rural households. Most of these roads are not paved and some are not even motorable.

These problems were surmounted through forbearance on the part of the study team.

## CHAPTER 5

### **OBSERVED SOCIO-DEMOGRAPHIC CHARACTERISTICS OF SURVEYED RURAL HOUSEHOLDS IN NORTHERN PROVINCE**

#### **5.1. Preliminary Observations.**

The logical starting point of our assessment of the socio-economic impact of HIV/AIDS on rural households is to present the results of our fields survey on the socio-demographic status of rural households in Northern Province. These results cover the gender and age of household heads, marital status, level of education of household heads, size of household and the separation of households into "affected" and "unaffected households". Since one major impact of HIV/AIDS is to reduce the demographic size of affected households, we attempted to compare the household size of the "affected households" with that of "unaffected households". It is noteworthy that these socio-demographic characteristics are important factors affecting rural household behaviour and indeed household morbidity and mortality resulting from HIV/AIDS; they also determine the coping mechanisms that some of the rural households are currently adopting.

#### **5.2. Gender and Age of Heads of Households.**

Table 5.1. summarises the gender and age distribution of heads of rural households for the five selected areas of Northern Province. A close observation of this table would reveal that 67.50 percent of the households

are headed by females while 32.50 percent are headed by males. The fact that about two thirds of the households are headed by females has important implications for mitigation strategies as female headed households tend to be more vulnerable as a result of their rates of poverty.

**Table 5.1. : Gender and Age of Household Heads in the Study Sample.**

Age Bracket	Gender		Total	% of Respondents
	Male	Female		
15 and Below	3	8	11	1.64
16-20	2	2	4	0.58
21-30	46	108	154	22.75
31-40	69	134	203	29.98
41-50	44	94	138	20.38
51-60	21	45	66	9.75
61-70	24	32	56	8.27
71-80	9	25	34	5.02
Over 80	3	8	11	1.63
Total	220	457	677	100.00
Percentage	32.50	67.50		

Source : Field Survey 2001.

The large percentage of female headed households in rural areas may be due to the the apartheid regime phenomenon, whereby most males migrated from the rural areas to work in the mines while their wives stayed behind to cater for the rest of the family members. Female headed households had

also increased as a result of widowhood, divorce and separation. Possibly some women might have been widowed as a result of HIV/AIDS.

The age distribution pattern among the heads of rural households in table 5.1. shows that about 2 percent of the households were headed by children. This is a direct consequence of the fact that these children were orphans whose parents have died prematurely- an incident that could be related to HIV/AIDS pandemic. Majority of the household were headed by middle aged individuals as the average age of the head of household was 38 years. Approximately 15 percent of the household were headed by people who are over 60 years old.

It should be noted that child-headed households and households headed by people who are over 70 years old constitute special areas of social intervention problems for government in terms of welfare support for these children (orphans) and the elderly people.

### **5.3. Marital Status of Heads of Households.**

The marital status of heads of households has been summarised and presented in table 5.2. It can be observed from this table that about 25 percent of the heads of households were single; while about 60 percent were married. Approximately 9 percent were widowed. The high percentage of widows could be due to consequences of premature deaths over the past years; and such death can be related to HIV/AIDS pandemic.

Table 5.2 : Marital Status of Heads of Households in the Sample Areas of Northern Province.

Marital Status	Number of Respondents (N)	%
Single	148	25.00
Married	357	60.31
Divorced	16	2.70
Cohabiting	18	3.04
Widowed	53	8.95
TOTAL	592	100.00

Source : Field survey 2001.

#### 5.4. Level of Education of Heads of Households.

Since education is an important factor influencing household behavior and the coping mechanism which any household can adopt, the respondents were requested to indicate their level of education. The results obtained are presented in table 5.3.

Table 5.3. : Level of Education of Household Heads in the Study Samples.

Level of Education	No of Respondents (N)	%
No Formal Education	138	20.47
Primary Education	149	22.12
Secondary Education	187	27.74
Grade 12	138	20.47
College	37	5.49
Technicon	11	1.63
University	11	1.63
Others	3	0.45
TOTAL	674	100.00

Source : Field Survey 2001

It can be observed from table 5.3. that about 20 percent of the heads of households had no formal education and they can therefore be classified as illiterate. This high level of illiteracy among heads of rural households may create problems in relation to government awareness programmes to eradicate the socio-economic problems of rural poverty, unemployment, and HIV/AIDS pandemic in rural areas.

### 5.5. Separating Affected Households from Unaffected Households.

Using our definition of "affected households" to indicate those households that have suffered premature adult deaths and/or chronic illness over the past years, we were able to categorise our surveyed households into "affected" and "unaffected" groups. The results of this grouping are presented in tables 5.4 and 5.5.

Table 5.4. Classification of Households into "Affected" and "Unaffected" Categories.

Area/Region	Affected Households	Unaffected Households	Numbers who did not answer the question	Total Number of Respondents
Messina	23	112	30	165
Tshakhuma	2	104	24	130
Giyani	38	76	16	130
Seshego	40	76	4	120
Warmbath	26	67	42	135
<b>TOTAL</b>	<b>129</b>	<b>435</b>	<b>116</b>	<b>680</b>

Source : Field Survey 2001

Table 5.5. Percentage Distribution of Affected Households by Region/Areas.

Area/Region	Total Number of Households Surveyed (N)	Number of Households who indicated that they were "affected"	Percentage of Total (%)
Messina	165	23	13.94
Tshakhuma	130	2	1.54
Giyani	130	38	29.23
Seshego	120	40	33.33
Warmbath (Bela-Bela)	135	26	19.26
All Areas	680	129	18.97

Source : Field survey 2001.

It can be observed from tables 5.4. and 5.5. that about 19 percent of the rural households can be classified as "affected households" The result further indicates that one out of every five households surveyed can be classified as "affected". There are however regional differences in the distribution of "affected households" with Seshego area having the highest percentage of about 33%, followed by Giyani with 29 percent and Warmbath (Bela Bela) with approximately 20%.

The low percentage obtained for Tshakhuma village could be due to under reporting and the fact that most people interviewed here were very sensitive to the social stigma attached to the HIV/AIDS pandemic. Thus,

they would prefer not to reveal any information which can link their household members to HIV/AIDS pandemic.

### 5.6. Comparing Household Sizes for the Affected and Unaffected Households.

Given the fact that HIV/AIDS (through death and morbidity) reduces the size of households it was necessary to compare the size of households for the "affected households" and the "unaffected households". Our survey results are presented in table 5.6.

Table 5.6. : Comparing Household Sizes for Affected and Unaffected Households.

Item	Affected Household			Unaffected Households		
	Male Headed	Female Headed	TOTAL	Male Headed	Female Headed	TOTAL
Mean Size of Household	4.88	5.10	4.90	4.96	5.40	5.20
Standard Deviation	2.31	2.05	2.24	2.44	2.20	2.32
Range in Household size	1 to 15	1 to 13	1 to 15	1 to 10	2 to 13	1 to 13

Source : Field Survey 2001.

It can be noted that the mean household size for "unaffected" group of households was 5.2., while that of "affected" household was 4.9. There is therefore an observed reduction in size of the "affected household".

The possible reasons for the observed changes in household size is presented in table 5.7. Three major reasons were cited by the respondents

for the observed changes in their household size. The first is that new births have occurred in some households hence about 47 percent of the respondents were able to cite new births as the main reason for their change in household size. Another significant cause could be the to deaths of household members resulting from chronic illness. Table 5.7. reveals that approximately 27 percent of the respondents cited this reason as the main cause for changes in their household size. This is important for the HIV/AIDS demographic consideration with respect to mitigation strategy.

Table 5.7. : Reasons Cited for Changes in Household Size.

Reasons	Frequency	Percentage of Total	Valid %
Chronic illness/death of Household members	47	7.5	27.4
Migration/Employment	37	5.9	21.5
New Births	81	12.8	47.1
Poverty	1	0.2	0.6
Witchcraft	6	0.9	3.5
Sub Total	172	27.1	100.00
No Response	462	72.9	
TOTAL	634	100.00	

Source : Oni et al Field Survey 2001

Lastly, as indicated in table 5.7, about 22% cited migration and search for employment as the main cause for their change in household size. This is also important for the rural-urban migration and the poverty alleviation policy.

In summary, the following socio-demographic characteristics are associated with the rural households included in this survey : two-thirds of the rural households are headed by females; and approximately 9 percent of the households are headed by widows. The average size of household of the "affected household" was 4.9, while that of "unaffected household" was 5.2. Twenty-seven percent of the affected households cited death of household members as the main reason for the reduction in their household size. These identified features have important policy implications for the HIV/AIDS mitigation strategies that can be recommended for rural areas of Northern Province.

## CHAPTER 6

### ECONOMIC IMPACT OF HIV/AIDS ON RURAL HOUSEHOLDS IN NORTHERN PROVINCE.

#### 6.1. Preliminary Considerations.

The purpose of this chapter is to present the empirical findings on the economic impact of HIV/AIDS on rural households in the Northern Province. The review of literature presented earlier, has provided some "a-priori" expectations of the economic impacts on HIV/AIDS on rural households. Such "a priori" expectations include the following, among others :

- reduced household income as a result of deaths of household members and/or chronic illness of household members who, are at their prime working ages;
- changes in household expenditure patterns involving some increased expenditures on transportation, medical care and funerals, but reduced household expenditures on education and clothing;
- reduced household savings and household investment; and
- increased household borrowings.

Based on the results of the field survey of 680 selected rural households in Northern Province, the empirical findings of the impact assessment are discussed under various sections. The impacts of HIV/AIDS on households income are presented in section two; the impacts of HIV/AIDS on household

expenditures are presented in section three; while the impacts of HIV/AIDS of household savings and household borrowings are presented in section four. The last section (section 5) of the chapter focuses on the coping strategies adopted by most households in mitigating the HIV/AIDS impacts.

## **6.2. The Impact on Household Income.**

Table 6.1. compares the annual (for year 2000) incomes of affected and unaffected households. The table shows that there are significant differences in household income for "affected households" and "unaffected households" for the year 2000. It can be observed from table 6.1. that "affected households" had an average annual income of about R13,314 while "unaffected households" had an average annual income of about R20,606. Three sources of income were identified for the various households; these were agricultural incomes, non agricultural income; and other incomes which included remittances and gifts received by household members. Non agricultural income includes employment incomes, government pensions and grants. These non-agricultural incomes constitute the largest source of income accruable to most rural households in the Northern Province.

Table 6.1. : Comparison of Annual Household Income for Affected and Unaffected Households (for year 2000).

Income Type	Affected Households			Unaffected Households		
	Frequency N	Mean Income (R)	Standard Deviation (R)	Frequency N	Mean Income (R)	Standard Deviation (R)
Agricultural Income	27	2984.11	2340.36	49	3532.12	2656.20
Non-Agricultural Income*	71	11842.02	9235.04	153	17108.60	13650.40
Other Income**	18	7203.88	7203.88	23	9856.08	8120.60
Aggregate Income from all sources	116	13314.51	13314.51	225	20606.13	14825.40

\* Non-agricultural income includes employment incomes, pensions, etc.

\*\* Other income includes remittances received by household members, gifts; etc.

Source : Compiled from field Survey 2001.

The comparison of the aggregate annual income between affected households and unaffected households indicates that the income received by affected households was approximately 35 per cent lower than that received by unaffected households. Two possible explanations can be given for the observed lower household income of affected households. The first is that some households affected by HIV/AIDS suffered direct loss of income arising from loss of earnings from members of household, who were either

too ill to work (morbidity) or had died of HIV/AIDS related causes (mortality). The second cause of reduced household income could be attributed to loss of earnings from those household members who had to leave their jobs in order to cater for the sick members of the family. Thus, the forgone household income in most cases include direct loss of annual income of the infected members of household as well as the forgone income or earnings of the care-givers, when such care givers are also members of households.

As a way of testing our income hypothesis, the differences between the annual income of affected households and unaffected households were tested statistically using Z-score statistics at 5 percent level of significance. The result of the statistical test reveals that the estimated Z.score was 5.3 while the tabulated Z-score was 1.96 for one tail test. This result shows that there are significant differences between the annual household income of "affected" and "unaffected" households.

Given the fact that most rural households in Northern Province are regarded as very poor, it was necessary to compare the income levels of the households in the study sample with the poverty line for the country, which has been estimated at R350 per capita per month. For this comparison, table 6.2. were derived from the data in table 6.1, using the information that the average size of the affected household was 4.90 and unaffected household was 5.20 in year 2000.

Table 6.2. Comparison of Monthly Household Income and per capita income for Affected Households and Unaffected Households.

Item	Affected Households (R)	Unaffected Households (R)	Difference in Income (R)	% Differences (%)
Mean Annual Household Income for Year 2000	13314.51	20606.13	7291.62	35.38
Estimated Household size in year 2000	4.90	5.20		
Mean Annual per capita income	2717.25	3962.23	1245.47	31.42
Mean Monthly per capita Income	226.44	330.23	103.79	31.42

Source : Compiled from Field Survey Data.

It can be observed from table 6.2. that the per capita mean monthly income for affected households was R226 while that of unaffected household was approximately R330. Two major points should be noted with respect to this result. The first is that the per capita monthly income for the average affected household was about 31 percent lower than that of unaffected household. The second point of significance is that the per capita monthly incomes of both affected and unaffected households were less than R350 per month. This indicates that both categories of households were living below the national poverty line.

This implies that in the absence of HIV/AIDS most rural households in Northern Province were living below the national poverty line in year 2000. The level of poverty has however been exacerbated by the impact of

HIV/AIDS, which has reduced the per capita monthly income by about 31 percent.

### **6.3. Impact on Household Expenditures.**

The impact of HIV/AIDS on household expenditure can be assessed by comparing household expenditures for affected and unaffected households. Tables 6.3. summarises our findings from the field survey data. It can be observed from this table that affected households spent more on transportation, medical care and funeral expenses; but less on education and other cost of living items, when compared with unaffected households.

The amount spent on medical care by affected households was estimated as approximately R212 per month; while unaffected households spent about R206 per month. When we compare these two figures we observe that household expenditures on health care by HIV/AIDS affected households was slightly higher than that of unaffected households. Our "a-priori" expectation that the differences in medical care expenses should be significantly different since households with HIV/AIDS are expected to visit health clinics or traditional healers much more often than households that are unaffected was not realized. The cost of treatment of HIV/AIDS is expected to rise as the disease progresses, hence we would expect some significant differences in medical care cost. We therefore proceeded to test for the significant differences between these two mean expenditures for medical care using z-score statistics, at 5 percent level of significance. The z-score estimate for the two means was 0.17 while the tabulated z-

score was 1.96 for one tail test. The above result confirms that there were no significant differences between the affected and unaffected household expenditures on medical care. This was contrary to our "a priori" expectation.

Table 6.3 : Comparison of monthly household expenditures for affected and unaffected households for year 2001.

Expenditure Item	Affected Household				Unaffected Households			
	N or Frequency	Mean Exp (in R)	% of Total Exp. (%)	Standard Deviation (in R)	N	Mean Exp (in R)	% of Total Exp. (%)	SD
1. Monthly cost of housing	17	635.29	21.4	216.75	60	1331.51	32.56	777.08
2. Clothing cost	64	631.73	21.29	341.45	254	427.66	10.46	609.93
3. Cost of electricity	105	59.30	1.99	53.73	300	103.78	2.53	313.16
4. Education cost	72	259.95	8.76	214.20	230	639.58	15.64	272.00
5. Medical expenses	37	212.21	7.15	154.52	78	206.56	5.04	186.00
6. Transportation cost	32	321.31	10.83	147.70	104	252.23	6.16	221.20
7. Cost of food	120	240.55	8.11	180.84	382	267.86	6.56	259.10
8. Cost of drinks	61	87.08	2.93	72.38	206	88.33	2.16	108.00
9. Cost of funerals	63	91.61	3.08	82.63	211	69.45	1.69	65.40
10. Cost of soap	103	72.33	2.43	54.32	308	80.73	1.97	61.30
11. Cost of paraffin	63	50.70	1.71	46.53	169	97.46	2.38	82.00
12. Remittance outgoing	7	304.14	10.25	271.71	13	526.15	12.86	525.10
TOTAL		2966.20	100			4091.30	100.00	

Source : Field Survey 2001.

The situation with respect to household expenditures on education was however quite different. The amount spent on education by affected household was estimated as R259 per month while unaffected household spent about R640 per month on education. Given the above variation, statistical tests were applied to test for significant differences between these two mean expenditures on education. The test reveals that at 5 percent level, the estimated z-score was 12.3; and when this was compared with the tabulated z-score, which was 1.96 for one tail test, we concluded that there are significant differences between these two mean expenditures on education.

The significant differences which were observed as lower expenditure on education for the affected households can be explained by the fact that some affected households withdrew their children from schools to help take care of sick members of households. This was particularly the case with female children who are culturally given the role of care providers when their parents are sick or incapacitated.

A comparison of the household expenditure pattern by using monetary values may not truly reflect the magnitude of the proportional changes in household spending profile; thus, a comparison of the proportion of the household spending profile using percentages of total expenditures was carried out. Table 6.4. presents the monthly expenditure patterns for some selected items for affected and unaffected households in form of percentages.

It can be observed from table 6.4. that affected households increased their percentage expenditures on medical care by 1.68 percent; transportation by 4.74% and funeral expenses by 0.68 percent. Affected households also reduced their expenditures on education by 7.32% housing by 11.5% and remittances going out by 2.45%. These observed patterns of household expenditures have implications for the formulation of appropriate mitigation strategy for HIV/AIDS affected households.

**Table 6.4. :Selected Monthly Expenditure Patterns for Affected and Unaffected Households (by %)**

Expenditure Item	Unaffected Households (%) of total Expenditure	Affected Households (%) of total Expenditure	% Differences	Observed Direction of Impact on Affected Households
Medical Expenses (Health Cost)	5.04	7.15	1.68	Increasing
Transportation	6.16	10.83	4.74	Increasing
Funeral expenses	1.69	3.08	0.68	Increasing
Housing	32.54	21.40	-11.05	Decreasing
Education	15.63	8.76	-7.32	Decreasing
Remittances going out	12.86	10.25	-2.45	Decreasing

Source : Computed from field survey data, 2001.

#### 6.4. Impact on Household Savings and Borrowings.

Given the premise that the potential impacts of HIV/AIDS include increased household borrowings and reduced household savings to meet up with the decline in household income and increased household expenditures on medical care arising from treatments for HIV/AIDS related illnesses, the respondents were requested to indicate their levels of annual household savings for year 2000. The responses obtained were analysed and grouped into affected and unaffected households categories. Table 6.5. summarises our findings for these two groups of households.

Table 6.5. Comparison of Savings Between Affected and Unaffected Households.

Types of Savings	Affected Households			Unaffected Households		
	Mean Amount Saved (R)	N	Standard Deviation (R)	Mean Amount Saved (R)	N	Standard Deviation (R)
Bank Savings	397.93	32	360.55	500.51	154	382.55
Insurance Policies	146.99	8	104.93	335.27	59	232.11
Stokvel	154.09	22	151.10	164.35	73	90.12
Others	645.00	6	456.77	725.83	6	621.18
All Respondents	367.20	68	262.50	575.21	292	357.22

Source : Compiled from field survey data, 2001.

Two major points should be noted with respect to table 6.5. The first is that unaffected household had a mean household savings of R575.21 compared with affected household, which had a lower average household

savings of R367.20. The difference in household savings of about R208 represents about 36 percent loss of savings for the "affected household". This reduction in household savings among the affected households can be explained by the fact that these households had encountered reduced household income or loss of earnings attributed to loss of work force arising from medical incapacitation or morbidity or some mortality of household members. The rising household expenditures on medical care and treatments together with increased expenditures on funerals can also account for parts of the reduction in household savings of HIV/AIDS affected households.

Another point of significance with respect to table 6.5. is that bank savings and stokvels are the two most popular types of savings among the surveyed households. Due to limited bank facilities a high proportion of rural people depend on stokvels for their savings.

The impact of HIV/AIDS on household borrowings was assessed by comparing borrowings between affected households and unaffected households. This is summarized in table 6.6. A close examination of this table indicates that relatives constituted the most predominant source of loans. The mean amount borrowed by affected households from relatives was estimated as R923; while the mean amount borrowed from relatives by unaffected households was estimated as only R268. It can therefore be observed that affected households borrowed loans that are over 300 percent larger in size (from their relatives) when compared with loans obtained by unaffected households from relatives. The reason for this high

amount of loans from relatives can be attributed to the social and cultural values which rural people attach to providing financial and moral supports to their relatives during periods of disasters or afflictions such as the case with HIV/AIDS pandemic.

Table 6.6. : Comparison of Borrowings Between Affected and Unaffected Households.

Types of Borrowings	Affected Households			Unaffected Households		
	Mean Amount Saved (R)	Frequency N	Standard Deviation (R)	Mean Amount Saved (R)	N	Standard Deviation (R)
Relatives	926.85	9	418.65	268.00	15	212.07
Bank	2516.20	1	-	3650.00	8	2104.28
Burial Services Agencies	498.57	7	404.10	517.00	10	387.64

Source : Field Survey 2001

Statistical tests for significant differences between the mean household borrowings from relatives for the affected and unaffected households were carried out and the results obtained reveal that there were significant differences between the mean household borrowings for the affected and unaffected households. The statistical tests for significant differences between the household savings of these two groups reveal that there were also significant differences between the household savings among these two groups of households.

## **6.5. Household Coping Strategies.**

The impact of HIV/AIDS on various households had prompted many households to adopt specific survival strategies to cope with some of the HIV/AIDS related problems. These household coping strategies are useful for providing the framework for policy recommendations on mitigation strategies.

An effort to identify these household coping strategies was made by the research team during the focus group discussions whereby, some respondents were requested to identify their household coping strategies. The information obtained from these focus group discussions on household coping strategies are summarized as follows :

- Since a major impact of HIV/AIDS is in form of reduced household income many affected households tried to supplement their household income in various ways. Some households engaged in diversification of their income sources. For example, some household members started petty trading in agricultural products such as fruit and vegetables while other households started selling second hand clothes.
- Many households adopted borrowing as their survival strategy. Loans or credit were obtained from relatives, friends and funeral agencies to cope with the HIV/AIDS engendered problems of medical treatment and funeral costs.

- Some households adopted sale of their household assets such as cattle, goats and chicken to generate additional income to meet the households cash requirements. This was a popular coping strategy adopted by smallholder farming households.
- A major coping strategy adopted by some households involved the withdrawal of their children from schools. This was particularly adopted as a strategy to allow the households to stop paying school fees and simultaneously provide the opportunity for the children to provide some care for the sick members of the households.
- Another coping strategy used by some households involved sending their children away to live with distant relatives. This strategy reduced the family size and therefore the household living expenses. It also allowed the relatives to provide some support to the affected households through paying the school fees of these children, and providing for the basic needs of the children.
- Other coping strategies identified include reducing household farm activities and farm sizes as well as joining church support groups in the villages.

## CHAPTER 7

### THE IMPACT OF HIV/AIDS ON SMALLHOLDER AGRICULTURAL PRODUCTION IN THE NORTHERN PROVINCE

#### 7.1. Observed features of Smallholder Agricultural Production Systems in the Northern Province.

In order to provide the logical background to our understanding of the impact of HIV/AIDS on smallholder agricultural production, we first identified the features of the smallholder farming systems in the Northern Province. The following features of smallholder farming sector were identified during our field survey of the Northern Province :

- The smallholder farming systems involve growing of food crops such as green mealies (maize), legumes and vegetables; as well as raising of few livestock such as goats, sheep, poultry and cattle.
- The primary objective of farming is to meet the household food security with very little emphasis on commercialisation or profitability of farm enterprises.
- Household family labour and family land holdings constitute the major inputs of the agricultural production systems.
- Farming involves use of low level farm technology and very little or nonexistent use of farm credit.

- The above production features of smallholder farming systems usually generate low level of farm output and consequently low agricultural income for the farming households.

## **7.2. Impact on Smallholder Agricultural Resources.**

The major resource available to farming households in rural areas of Northern Province is their family labour force. HIV/AIDS, through mortality and morbidity, reduces available family labour force and thus reduces the major resource available for smallholder farming in the rural areas. This has direct negative impact on smallholder agricultural production in terms of reduction in farming output and farm income.

Besides labour shortage due to death of family members, the impact of HIV/AIDS on other agricultural resources (other than household labour) are not apparent. Therefore, in our effort to gauge or assess the impact of HIV/AIDS on these agricultural resources, the respondents were requested to indicate the amount of agricultural resources available to each household besides their family labour force. The households were separated into "affected" and "unaffected" categories for comparative analysis and the results obtained are summarised in table 7.1.

The three major household resources identified were land, cattle and goats. These are compared in table 7.1. A close examination of this table indicates that the average land holding for the "affected households", was 1.77 hectares and this was smaller than the average holding for "unaffected

household" which was estimated as 1.82 hectares. The reduction in farm holding among affected households was however not very significant since sale of land in rural areas is not very popular, due to existing communal land tenure arrangements, which gives land disposal rights exclusively to "tribal" authorities.

Cattle was found to be another important agricultural resource owned by the smallerholder farming households. Cattle is used by some farmers as draught power for their village operations while some farmers sell cattle for their cash income to meet family expenses. The average cattle owned by "affected household" was 9 while that of "unaffected household" was about 12.

Table 7.1. Ownership of Agricultural Resources Compared between Affected and Unaffected Households.

Resource Item	Affected Households		Unaffected Households	
	No. of Households Reporting (M)	Mean Amount owned	No. of Households Responding (N)	Mean Amount owned
Land (in Ha)	35	1.77 ha (SD = 0.26)	71	1,82 ha (SD =0.18)
Cattle (in Nos)	10	9.67 (SD = 2.62)	37	12.22 (SD=7.09)
Goats (in Nos)	7	5.83 (SD = 1.19)	12	17.28 (SD = 11.85)

Source : Derived Field Survey, 2001

\* SD = Standard Deviation

The reduced size of cattle ownership by "affected households" may be attributable to the fact that these households had sold off some of their cattle to cover medical and funeral expenses engendered by the HIV/AIDS pandemic. The lower number of cattle for the "affected households" also means reduced draught power for smallholder farming operations, which consequently would result in lower farm output and lower agricultural income.

Goats are the other resources identified by the farming households in the surveyed areas. Table 7.1. shows that "affected households" on the average had less goats (6 goats) when compared with "unaffected households" which had an average of 17 goats per household. The lower number of goats owned by "affected households" might be due to the sale of the goats to meet up with household cash needs.

### **7.3. Impact of HIV/AIDS on Smallholder Agricultural Production.**

In an attempt to assess the impact of HIV/AIDS on smallholder agricultural production, the heads of households selected for the survey were requested to indicate whether their households were involved in smallholder agricultural production during the last two agricultural production seasons (1999 and 2000) or not. If they were involved in smallholder agricultural production, they were further requested to identify the agricultural enterprises they were involved in and indicate how HIV/AIDS had affected their agricultural production. Table 7.2. presents the summary of our findings.

Table 7.2. Agricultural Production Among Sampled Households in the Northern Province.

Area/Region	Total Frequency Responding (N)	Number of Households involved in Agric. Production	% of Total Responding
Messina	152	3	1.97
Tshakhuma	127	2	1.57
Giyani	86	27	31.40
Seshego	115	49	42.61
Warmbath (Bela-Bela)	79	3	3.80
TOTAL	559	84	15.02

Source : Field Survey 2001.

Table 7.2. shows that only about 15 percent of the rural households were involved in smallholder agricultural production for the 1999 and 2000 production seasons. There were regional variations in the involvement of households; with Giyani and Seshego areas having about 42% and 31% respectively of their households involved in smallholder farming; while households in Warmbarth, Messina and Tshakhuma had less than 4 percent of their households involved in smallholder agricultural production.

The households who were involved in smallholder farming in Giyani areas indicated that they were producing crops such as maize, sugarcane and banana; while farmers in Seshego (Moletsi) were involved in the production of maize, soyabeans and vegetables. Livestock production was also identified

by these farmers and the livestock raised include cattle, goats, sheep, poultry and few donkeys.

When the farmers who were involved in agriculture were requested to identify the impact of HIV/AIDS on their smallholder agriculture over the past two seasons (1999 and 2000), only few of them indicated that HIV/AIDS has any impact on their agricultural production. Those who responded to this identified the following impacts :

- reduction in their crop production as a result of reduction in farm/household labour availability; reduction in farm sizes and reduction in the number of their livestock (cattle and goats). The reduction in farm/household labour can be due to chronic illness or death of family members; some household indicated that HIV/AIDS reduced their labour force since they had to spend sometime attending funerals of relations.

The reduction in number of livestock belonging to affected households can be explained by the fact that some households slaughtered cattle or goats for funerals; while other households sold these livestock to raise money for medical and other household expenses.

#### **7.4. Reasons cited for changes in Agricultural Production Among Affected Households.**

Since some of the affected households had identified reduction in their agricultural production as the major impact of HIV/AIDS on their farming sector, it was necessary to request these households affected to give

reasons for their observed reduction in agricultural production for the year 1999 and 2000. The responses of the affected households are summarised in table 7.3.

Table 7.3. Reasons Cited by Affected Households for Reduction in their Agricultural Production in 1999 and 2000.

Reasons	Frequency (N)	% Responding
Reduction in Household Labour Force	7	25.93
Decline in land used for production	1	3.70
Bad weather	19	70.37
TOTAL	27	100.00

Source : Field Survey Data, 2001.

It can be observed from table 7.3. that about 70 percent of the affected households cited bad weather as the primary reason for the decline in their agricultural production. Only about 26 percent cited reduction in household labour force as the primary reason for the agricultural decline; about 4 percent mentioned some decline in their farmland as the reason for the reduction in their agricultural production.

Since smallholder agriculture is labour intensive, the decline in labour force would inevitably lead to decline in agricultural production. Also, it is important to note that some households adjusted to their reduction in household labour shortage by withdrawing children from schools or by decreasing the size of their farm operations.

## 7.5. Impact on Agricultural Income.

The impact of HIV/AIDS on agricultural income can be assessed by comparing the agricultural income of "affected households" with those of "unaffected households." Table 7.4. summarises the results obtained from our field survey.

Table 7.4. Comparison of Agricultural Incomes for Affected and Unaffected Households.

Affected households			Unaffected Households		
Frequency	Mean Income (R)	Standard Deviation	Frequency	Mean Income (R)	Standard Deviation
27	2984.11	2340.36	49	3532.12*	2656.20

Source : Field Survey (2001)

It can be observed from table 7.4 that affected households have a mean agricultural income that was estimated as R2984.11 per annum; while unaffected households have a mean agricultural income that was estimated as R3532.12. This result shows that unaffected households had an average agricultural income that is about 20 percent higher than those obtained by affected households.

When these mean agricultural incomes were subjected to statistical test, it was found that they were not significantly different at 5 percent level using a t-test statistic. The computed Z. score was 0.90 and the tabulated z-score was 1.645 for two tail test. Thus, we conclude that there were no significant differences in the two mean agricultural incomes.

The result of our findings indicate some reduction in agricultural income as an important impact of HIV/AIDS on smallholder farming. This reduction of income was however found not to be statistically significant. This result should provide some guidance for our policy recommendations on HIV/AIDS mitigation strategies for small holder farming households in the Northern Province.

## CHAPTER 8

### IMPACT OF HIV/AIDS ON ORPHANS : A CASE STUDY OF TAKALANI CHILDREN'S HOME AND TSHAKHUMA HOME-BASED CARE PROJECT

#### 8.1. Introduction.

The focus of this chapter is to assess the impact of HIV/AIDS on orphans. This is done by clearly defining HIV/AIDS orphans, identifying and discussing the magnitude of the HIV/AIDS orphans in South Africa in comparison with other SADC countries. Next, the major problems facing HIV/AIDS orphans in terms of their potential vulnerability and stigmatization are examined. The options available for care of HIV/AIDS orphans are presented and lastly, the Takalani Children's Home (an institutional orphanage) is discussed and compared with that of Tshakhuma, Home-Based Care and Orphans Project.

#### 8.2. Defining and Identifying HIV/AIDS orphans.

The World Health Organisation (WHO) and UNICEF define AIDS orphans as "children who lost their mother to AIDS before the age of 15 years". Some of these children have also lost or will later lose their fathers to AIDS. BY applying the above definition of orphans, UNICEF estimated that approximately 13 million children would be orphaned by AIDS by the end of 2001.

The above estimate of orphans includes children who have since died as well as those who are no longer under the age of 15 but still technically can be classified as HIV/AIDS orphans even though they may now be adult in terms of their age bracket. This creates some distortions in our classification of HIV/AIDS orphans. This problem is further exacerbated by the difficulty encountered in identifying HIV/AIDS orphans in many countries in Africa. For example, in South Africa, as a result of the social stigma attached to HIV/AIDS, the death certificates of HIV/AIDS victims generally do not reflect the cause of death as "HIV/AIDS". Instead, opportunistic diseases are reflected as the cause of death.

AIDS victims may die of tuberculosis, pneumonia, meningitis, diarrhoea or other disease overcomes. The statistics of AIDS may therefore not show the true incidence of HIV/AIDS cases as doctors and obituaries do not give the killer its name as they bow to social pressure and legal strictures not to record "AIDS" on death certificates. "I write TB or Meningitis or diarrhoea but never AIDS" says South Africa's Dr Moll. Families recoil in shame, and would hate it if anyone knew the true cause of death of their loved ones.

In consequence, there are considerable problems in identifying HIV/AIDS orphans since orphans resulting from AIDS death are mixed up with orphans whose parents died of other causes other than HIV/AIDS.

### **8.3. Magnitude of HIV/AIDS orphans in South Africa compared with other SADC countries.**

According to UNAIDS estimates, by the end of year 2000 there would be 13 million children who have lost both parents to AIDS, and 10.4 million of these would be under the age of 15 (UNAIDS, 2000) The above global estimate reveals the magnitude of the AIDS orphans throughout the world.

The question posed here is what is the magnitude of the AIDS orphans in Africa? Recent figures (UNAIDS, 2000) reveal that approximately 12 million African children have been orphaned by HIV/AIDS. Table 8.1. presents a summary of the magnitude of the AIDS orphans in South Africa compared with other SADC countries.

Table 8.1. : Magnitude of the HIV/AIDS orphans in South Africa compared with Other SADC Countries.

Country	No. of Aids orphans	% of Population infected with HIV/AIDS	No. of Deaths due to HIV/AIDS per year
South Africa	420,000	20% of (Adult Population)	250,000 (Adult and children)
Botswana	66,000	36% of (Adult Population)	24,000 (Adult and children)
Swaziland	12,000	25% of (Adult Population)	7100 (Adult and children)
Lesotho	35,000	24% of (Adult Population)	16 000 (Adult and children)
Zambia	650,000	20% of (Adult Population)	99,000 (Adult and children)
Zimbabwe	900,000	25% of (Adult Population)	160,000 (Adult and children)
Malawi	276,000	8% of (Total Population)	(not available)
Namibia	67,000	19.5% of (Adult Population)	18,000

Sources : (a) Time, Volume 157 No. 6 February 2001

(b) UNAIDS (2000)

It can be observed from this table that HIV/AIDS orphans in South Africa have been estimated to be approximately 420,000. When this figure is compared with other countries in SADC, South Africa orphans ranked the

third highest in SADC; with Zimbabwe and Zambia ranking first and second in terms of HIV/AIDS orphan's population respectively.

The table indicates that a large number of children have been orphaned by HIV/AIDS in South Africa and other SADC countries. What are the problems posed by such a large number of orphans in South Africa? This is the focus of our discussion in the next section of this chapter.

#### **8.4. Problems of HIV/AIDS orphans in South Africa.**

Three major problems can be identified for the HIV/AIDS orphans in South Africa. The first is their extreme vulnerability to all sorts of risk and illness; the second is the social stigma suffered; and the third is the distress associated with the loss of parents. These problems are elaborated on below.

##### **(a) Vulnerability of AIDS orphans.**

HIV/AIDS orphans run greater risks of being malnourished and stunted than children under the care of their own parents. They may often be the first to be denied education, when extended families cannot afford to educate all children in the households, when they are lucky to be cared for by members of extended families like aunts and cousins or grandparents. From an empirical study in Zambia, it was revealed that 32% of orphans in rural areas were not enrolled in school as compared with 25% of non-orphaned children.

Also in terms of health care, children who are orphaned by AIDS may not receive the health care they need because it may be assumed that they are infected with AIDS and their illness are untreatable.

Aids orphans accumulate greater burdens of responsibility as heads of households when a grandparent or other guardian or caregiver dies. In consequence, AIDS orphans are often emotionally vulnerable, financially desperate and are more likely to be sexually abused and forced into exploitative situations, such as prostitution, as a means of survival. (UNAIDS, 2000).

**(b) Distress and Social Stigmatisation.**

The distress and social isolation experienced by children before and after the death of their parents are strongly exacerbated by the shame, fear and rejection that surrounds HIV/AIDS affected households. As a result of the social stigma and the often irrational fear surrounding AIDS, orphans may be denied access to schooling, health care and other basic social livelihood facilities available in the community. This may have devastating impact on the development of these children.

**(c) Psychological Impact of the tragedy of losing both parents to AIDS.**

A recent UNICEF study has shown that children suffered considerable trauma as a result of death of one or both parents. Once AIDS has claimed one of the parents, the children suffer considerable anxiety as they expect

to lose the remaining parent. These children therefore find themselves thrust in a position of mother or father, doing household chores looking after siblings, farming and caring for the ill or dying parent. This brings stress, anxiety and the children may often suffer from depression. (UNICEF 2001)

### **8.5. Care of HIV/AIDS Orphans and the options available.**

The UNAIDS report (1999) suggested that efforts to protect and care for children orphaned by AIDS are nearly as old as the epidemic; and many of these efforts were beginning to show real progress. As a logical basis for presenting our case study it is necessary to examine the options available for providing care for the HIV/AIDS orphans.

Barnett and Blaikie (1992) argued that when both parents have died there are basically four places where children can go for care :

- (i) to stay at the parental home as members of child-headed household and care for themselves;
- (ii) to go to their grand parents for care;
- (iii) to go to relative/guardians for care; and lastly;
- (iv) to go to some kind of Institutional Home care or orphanage.

A brief of these options provides further insights to the care of HIV/AIDS orphans.

### **Child-head households (Staying at home)**

Children may opt to stay at home if their grandparents are dead or their grand parents are too old to look after them. This usually happens when the orphans have no grandparents and the close relatives such as cousins and aunties are not willing to take responsibilities for these children. In their study, Barnett and Blaikie (1992) found that the majority of orphans who remained in their parents homes did so because they had no close relatives who were willing to house them and take care of their needs.

### **Staying with Grandparents**

This usually preferred, particularly where the grandparents have homes of their own and they are not too old to look after these children. Most orphans would prefer this option since it will provide them with grandparental love and true sense of parental identity.

### **Staying with Relatives or Guardians**

In the absence of grandparents, many orphans would stay with their relatives/guardians. This option is preferred by some children since it gives them a sense of belonging and some family identity. Under this option the caretakers are predominantly women.

### **Institutional Care.**

The institutional orphanages could be established by government or non-governmental organizations (NGO) to provide homes for orphans. Usually

these institutional orphanages have their advantages and disadvantages in terms of care and support, their potentials for the development of the children. These will be examined further in the Takalani case study that follows.

#### **8.6. Case Study of Takalani Children's Home.**

The Takalani Children's Home has been selected as the institutional orphanage for this case study because it is a private orphanage located in Nzhelele (Venda). It is located in the same district as the home-based care and orphanage project which has been selected for comparative purposes. The selection was done to minimize geographical and social-cultural differences that may impact on our assessment of the two care-systems being compared.

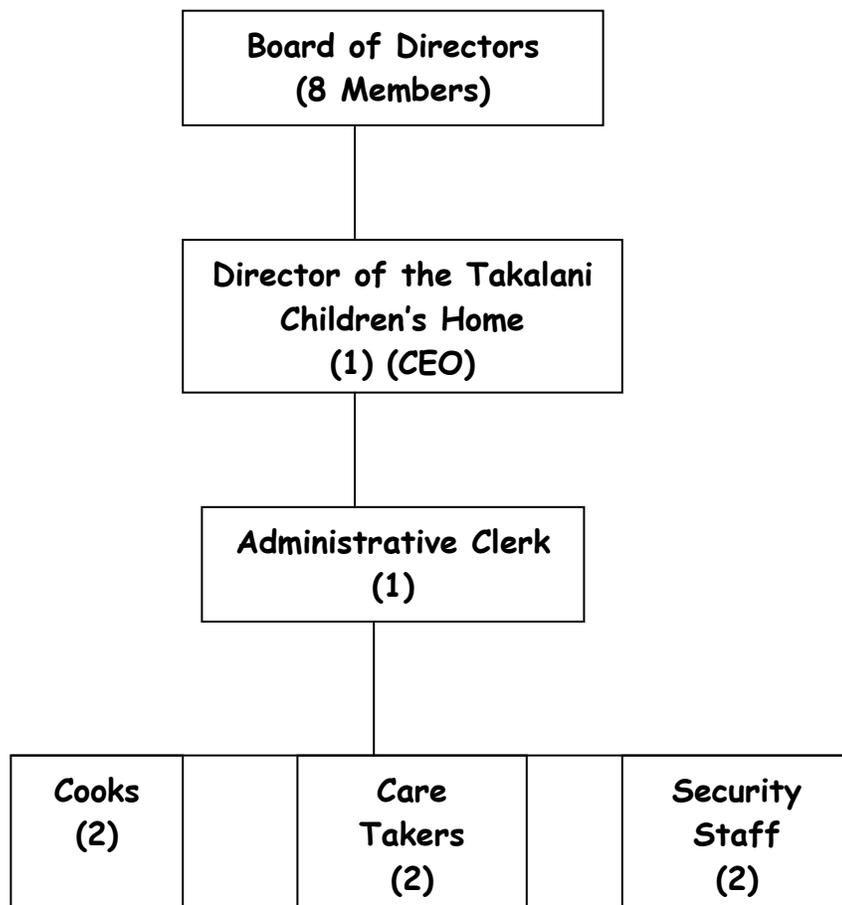
##### **(a) Location, Background and Objectives of Takalani Children's Home.**

Takalani Children's Home is a private orphanage, established in 1988 by Rev Langefeld, church missionary from Holland. It is located at Siloam-Nzhelele area of Vhembe District in Northern Province. It is a non-profit organization set up primarily with an objective of providing a home for orphans in then Venda (now part of Vhembe District) and other parts of Northern Province.

**(b) Organisation and Management of Takalani Children's Home**

The organization and management of Takalani Children's Home can be explained by focusing on Figure 8.1.

**Figure 8.1. : Organisational Chart of Takalani Children's Home.**



The Board of Directors is responsible for the policies and management of this institution. The board consists of a Chairperson, a Secretary, a treasurer and 5 other members. The Board is responsible for managing all

the activities of the institution and it takes full responsibility for the care and welfare of all the orphans at the institution. The board meets once in a quarter but it can be summoned to meet at any other time the need arises.

The Director of the Home is responsible for day to day management of the Home and she is assisted by an administrative clerk, who supervises all the other staff of the institution. At present, the institution has 8 staff consisting of the Director, the administrative clerk, two cooks, two care takers and two security men.

**(c) Services Rendered by Takalani Children's Home.**

Takalani Children's Home provides a comprehensive array of services to all the children at the institution. The services rendered include housing, feeding, education, medical care, sports and recreation and other services required for sustainable livelihood of these children.

**(d) Number and Types of Children Admitted to the Takalani Children's Home.**

Takalani children's Home admits children who are orphans. These children are usually brought into the home by Social Workers, who identify the children and obtain police reports and doctors certificates on these children. During the time of our visit to the institution, we observed that Takalani Children's Home had a total number of 25 children. When we enquired whether any of these 25 children could be categorized as

HIV/AIDS orphans, the respondent (who was the administrative officer) indicated that it was difficult to identify HIV/AIDS orphans but he suspected that one of the children could be an HIV/AIDS orphan. He however said that it is the policy of the Home to admit orphans once they are brought by the Social Worker and they possess necessary documentation in respect of the cause.

**(e) Ages and Gender of Orphans at Takalani Children's Home.**

In order to assess the advantages of the Home to the orphans specific details about the orphans at the home were obtained. Tables 8.2 and 8.3. present the gender and age distribution of the orphan of the Home in 2001. It can be observed from table 8.2. that both genders were well represented by the orphans at the home. The age distribution also varied (as shown in table 8.3.) from 5 years to over 18 years.

Table 8.2. Gender of Children (orphans) at Takalani Children's Home.

<b>Gender</b>	<b>No of Children</b>	<b>% of Total</b>
Male	13	52.00
Female	12	48.00
Total	25	100.00

Source : Field Survey 2001.

Table 8.3. : Age Distribution of Orphans at Takalani Children's Home.

Age Bracket (in years)	No of Children	% of Total
5 or below	1	4.00
6-10	2	8.00
11-17	20	80.00
18 and above	3	12.00
Total	25	100.00

Source : Field Survey 2001.

It is interesting to note that there were 3 orphans who were over 18 years old but were still classified as orphans, since they have no other homes except the Takalani Children's Home.

**f) Education of Orphans at Takalani Children's Home.**

Since education is an important aspect of any child's development, we requested full information on the various educational levels of the orphans was requested. Table 8.4. summarises our findings. It can be observed from this table that all the 25 orphans are at various levels of education ladder. In most cases Takalani Children Home paid their school fees (except in cases where the orphans were given scholarship). This access to educational opportunities is a major benefit to the children's future development.

Table 8.4. : Educational Institutions attended by Orphans at Takalani Children's Home.

Level of Educational Institution	No of Children Attending	% of Total Children
Nursery (Pre-Primary School)	1	4.00
Primary School Level	2	8.00
Secondary School Level	21	84.00
Tertiary Level	2	8.00
Total	25	100.00

Source : Field Survey 2001.

**g) Some Financial Aspects of Orphans Care at Takalani Children's Home.**

In our effort to estimate the cost of keeping an orphan at Takalani Children's Home, we requested for some information on the finances of the institution. The information obtained by our team reveals that the total monthly income received by Takalani Children's Home is approximately R60 000 per month. The sources of this income were identified as follows :

- (i) church contributions from Reformed Churches in Venda Church District;
- (ii) grants received from the Department of Health and Welfare in form of subsidy of about R800 per child per month which totals R20,000 for 25 orphans per month;.
- (iii) proprietor's contributions from organizations such as Redteenkind, and Deptatenghulp verling in Holland; and.

- (iv) private donations from individuals (these include cash and goods such as clothes and shoes).

From the expenditure side, it was revealed that the monthly total expenditure on all the orphans was estimated as R30,000. Thus for the 25 orphans the cost per orphan is therefore estimated as R1,200 per month. This is important for a comparison with the home-based care system for orphans.

#### **h) Social Stigmatization or Acceptance by the Community.**

Orphans at Takalani Children's Home were observed to have a very good relationship with members of the community at Siloam, Nzhelele and the entire Venda church district. "The orphans mixed very well with other children and they are not stigmatized in any way. They join recreation and sporting clubs and play games freely with other youths in the community". These are the comments of Mrs M.J. Phaswana - The Administrative Clerk of this Institutional Orphanage.

#### **(i) Identified Problems of Takalani Children's Home.**

Takalani Children's Home has two major problems, namely

- (a) Lack of a professional counselor and
- (b) Lack of transport facility.

- **Lack of Professional Counsellor at the Home.**

At present Takalani Children's Home has no full time Social Worker who is a professional counselor. Some of the orphans have serious adolescent problems including teenage pregnancy and multiple sexual relationships and occasionally one or two orphans become violent. These problems need professional counselling.

- **Lack of Transportation Facility.**

The institution at present has no transport facilities to convey these orphans to and from schools and to buy some of the needs. This can be rectified by a donation of a vehicle from any organization to Takalani Children's Home.

In summary, Takalani Children's Home as an institutional orphanage has been very effective in providing a home for orphans and also providing education, health care and other facilities to develop the full potentials of these orphans. This has been done at an estimated cost of about R1200 per child per month; and all these have been achieved without any social stigmatization of these orphans. However, it was very difficult to clearly identify HIV/AIDS orphans at this institution.

## **8.7. A Case Study of Tshakhuma Home-Based care and orphanage Project.**

### **(a) Objectives of the Project.**

Tshakhuma Home-based Care and Orphanage Project was established by the centre for Positive Care (CFPC), which is an NGO based in Thohoyandou. This project was started in year 2000 as a community based project, designed to provide care to HIV/AIDS patients and orphans at Tshakhuma Village in Thohoyandou Municipality (Venda Area). The primary objective of the project is to provide care for; and thus the suffering of the patients, as well as provide care and support to the orphans, through home based approach.

### **(b) Organisation and Management of the Project.**

The centre for Positive Care manages this project. The director of the NGO, who is based in Thohoyandou, is responsible for the management of the project. He is assisted by two project coordinators.

The first project coordinator coordinates the activities of the Tshakhuma Home-based Care and Orphans Project; while the second coordinator supervises the activities of another complimentary project entitled "Tshakhuma Peer Education Project" which was set up simultaneously by CFPC to promote HIV/AIDS awareness and education on prevention and control of HIV/AIDS in Tshakhuma Community. The project coordinator of Tshakhuma-Home Based Caree and Orphans Project has 26 field workers (25 females and one male), who carry out the activities of this project.

**(c) Activities of the Project.**

This project has two components. The first involves caring for the patients and the second involves orphans care and support. In caring for the patients, the field workers visit the homes of the patients periodically to care for them. This care includes bathing and cooking foods for them; cleaning their houses and compound; and taking them out of the house for fresh air. During our survey in 2001, it was reported that a total of 98 patients have been cared for under this project. Majority of these patients were females. Orphans who are cared for under this project live with their grandmothers who provide them with Home-based Care and Support. The centre for Positive Care provides these orphans with food, clothes and other household items estimated to cost about R200 per month for each orphan. The field workers of CFPC visit these home based orphans regularly and supply them these items. In addition, they teach the orphans basic hygiene and how to set up income generation projects at the village level.

**(d) Age and Gender of Orphans on the Project.**

During our field survey it was observed that only four orphans were covered under this project, three of these orphans were females and one was male. The age of the orphans varies from 9 to 14 years.

**(e) Orphan Care Providers**

All the orphan care providers are grandmothers who provide homes for these children (who are their grandchildren). As care providers these grandmothers provided all the basic needs of the children. These include health care, clothing, feeding, love and emotional.

However as a result of the poverty of these grandmothers they were not able to meet all the needs of the orphans given the fact that all these grandmothers are widows, who received little or no income except from the support obtained from CFPC and occasional gifts from friends and relatives.

**(f) Estimated Cost of Home-Based Care Per Orphan.**

To estimate the cost of the home-based care for orphans, information was obtained from the project coordinator. Based on his field observation he provided the following estimate :

- (i) Cost due to Centre for Positive Care = R200 per child per month.
- (ii) Cost due to grandmother/caregiver = R127.50 per child per month.
- (iii) Total Cost per child per month = R327.50

When the home-based care cost was compared with the cost at Takalani Children's Home which was R1200 per child per month, it shows the home

based orphanage care system is cheaper and therefore more cost-effective than the institutional orphanage.

**(g) Problems of Tshakhuma Home-Based Orphans Project.**

In spite of its cost-effectiveness, the Tshakhuma Home Based Project encounters some problems. These include social stigmatisation, insufficient household funds to meet the orphans needs and the problem of orphans education and health care.

As a result of the social stigma attached to HIV/AIDS, some of the orphans are shunned by some members of their community, including some community children who refuse to play with them. This problem may have serious psychological impact on the orphans as it may prevent their full acceptance by the village community.

Some of the grandmothers caring of these orphans are so poor that they cannot afford to pay for the children's education. When these grandmothers were asked about government's child support grant, they indicated that they could not obtain the child grant which is presently R110 per month, because they do not have the birth certificates of these children.

Some of the orphans were observed to have some skin diseases as well as other illness like cough. This is an indication of poor health care attributable to the home-based environment.

## CHAPTER 9

### OBSERVED HIV SEROPREVALENCE RATES AMONG RURAL HOUSEHOLDS IN THE NORTHERN PROVINCE.

#### 9.1. Seroprevalence Samples Selection in Bela-Bela and Venda Area.

A total of 200 individuals comprising 100 (70 females and 30 males) in the Bela-Bela/Warmbath area which is known tourist destination and another 100 (70 females and 30 males) in the Tshakhuma/Thohoyandou area which is home to one of South-African Universities, were selected at random and screened for HIV sero-prevalence. More females were enlisted for the study because they were more cooperative, easier to reach than the males, who were noted to be more aggressive and repulsive.

#### 9.2. Socio-Demographic Features of the Study Group.

##### **Bela-Bela/Warmbaths**

The demographic data of the study group employed in the study are presented in Table 9.1. The age range was 17years-55 years, with a mean of 34 and a median of 36. Among the study group, 15%, 75% and 10% were married, single and divorced respectively. About 65% were unemployed. Infection route was reportedly heterosexual and none of the subjects volunteered information on the intra-venous usage of drugs or commercial

sex work. In terms of educational status, about 25% of the study group had at least a matric qualification whereas 75% did not attain matric level.

**Tshakhuma/Thohoyandou Area.**

The age range was 16years-48years with a mean of 26 and a median of 29 (table 9.1) About 9%, 86% and 5% of the study population were married, single and divorced repectively. Unemployment rate was 67%. Infection was mainly by the heterosexual route. Information on intravenous use of drugs or commercial sex work could not be obtained. About 22% had matric qualifications whereas 78% did not attain matric level qualifications.

**Table 9.1 : Socio-Demographic Profile of the study Group for the Sero-prevalence**

<b>BELA-BELA/WARMBATHS AREA (N = 100)</b>		<b>TSHAKHUMA/THOHOYANDOU AREA (N = 100)</b>
<b>Characteristics</b>	<b>Demographic Data</b>	<b>Demographic Data</b>
<b>Age (in years)</b>		
Media	36	29
Mean	34	26
Range	17-55	16-48
<b>Gender</b>		
Females	70 (70%)	70 (70%)
Males	30 (30)	30 (30%)
<b>Marital Status</b>		
Married	15 (15%)	9 (9%)
Single	75 (75%)	86 (86%)
Divorced	10 (10%)	5 (5%)
<b>Employment status</b>		
*Employed	36(36%)	33 (33%)
Unemployed	65 (65%)	67 (67%)
<b>Educational Status (Matric and above)</b>	25 (25%)	22 (22%)
<b>Below-Matric</b>	75 (75%)	78 (78%)

\* This refers to formal employment.

### 9.3. Results of the Sero-prevalence Survey.

Results of the sero-prevalence survey obtained showed that a total of 38 (38%) in Bela-Bela, Warmbath area and 23 (23%) in Tshakhuma-Thohoyandou area were HIV sero-positive. Of the 30 males in each of the two groups,

9(30%) and 6(20%) in Bela-bela/Warmbath and Tshakhuma-Thohoyandou areas were respectively positive (table 2). Among the females 29 (41.5%) of the 70 screened in Bela-Bela and 17 (24.2%) of those screened in Tshakhuma-Thohoyoandou area were HIV positive (Table 9.2)

Generally, 61(30.5%) of the total number of 200 individuals screened in both areas were HIV seropositive. 15 (25%) of the total number of 60 males and 46 (32.5%) of the total number of 140 females screened in both areas were HIV seropositive (Table 9.2).

Table 9.2 :- HIV Sero-Prevalence in Two Areas of the Northern Province.

Area	Total No of People Screened	No of Males screened	No of females screened	No and % of total number positive	No and % of males positive	No and % of females positive
Bela-Bela (Warmbath) (A)	100	30	70	38(38%)	9 (30%)	29 (41.5%)
Venda Area (Tshakhuma-Thohoyandou) (B)	100	30	70	23(23%)	6 (20%)	17 (24.2%)
Overall results (A + B)	200	60	140	61(30.5%)	15(25%)	46(32.8%)

In both areas (Bela-Bela/Warmbath and Tshakhuma/Thohoyondou) the major presenting symptoms among HIV sero-positive individuals were headache, cough, tuberculosis, diarrhoea, chest pains and pneumonia (Table 9.3).

TABLE 9.3 : Symptomatology of Seropositive Individuals.

Bela-Bela /Warmbath Area (HIV Seropositivity n = 38)		Tshakhuma/Thohoyandou Area (HIV Seropositivity n=23)
Headach	5(13%)	6 (26)
Cough	6(15.8%)	7 7 (30%)
Diarrhoea	4 (10.5%)	1 (4.3%)
Chest pains	6 (15.8%)	7 (30%)
Tuberculosis	5 (13%)	1 (4.3%)
Pneunomia	5 (13%)	1 (4.3%)
Swollen legs	2 (5.2%)	0 (0%)
Abscesses	2 (5.2%)	0 (0%)
Asymptomatic	3 (52%)	0 (9%)

#### 9.4. Discussion.

HIV/AIDS is the scourge of the century. In developing countries, particularly in Africa, it has created an urgent public health problem due to the high rate of HIV/AIDS morbidity and mortality (Smego, 1999) and its ripple effect on the economy (Lowenson and Whiteside, 1997). In South Africa, HIV/AIDS is responsible for a substantial degree of morbidity and mortality in different age groups. In the year 2000, HIV seroprevalence in the country was estimated at 23.5% with a prevalence rate of 13.2% for the Northern Province (Department of Health, 2000).

In order to gauge the updated trend of the epidemic in the Northern Province, HIV seroprevalence surveys were conducted in two sites mentioned earlier. Results obtained revealed prevalence rates of 38% and 23% for Bela-Bela/Warmbath and Tshakhuma-Thohoyandou areas respectively as compared to about 20% and 2% respectively for "affected" in the households surveys. The discrepancies in the sero-prevalence and household surveys may be due to the 'silence chain', where people are not free to disclose their status even when they are very ill, because of the stigmatization of the disease. Such elusive cases could have been picked up during the sero-prevalence surveys, which were mainly conducted by health workers with pre and post counselling sessions. For example, during the households surveys in Tshakhuma/ Thohoyandou-Area, only 2% could be classified as "affected" households because interviewees refused to provide links that would reveal their households as affected, despite the fact that some members of the households were receiving treatments for AIDS associated diseases at the clinics. In general 61(30.5%) of the 200 individuals screened in both areas were HiV seropositive.

Although results obtained from these two sites may not represent the HIV seroprevalence status in the Northern (Limpopo) Province, they however provide an approximation, by extrapolation, of the current extent of the problem in the Province. Data from the 2000 Annual HIV/Seroprevalence survey indicated an increase of HIV seroprevalence from about 1% in 1990 to 7% in 1995 and a further increase to 13.2% in 2000 for the Northern Province (Department of Health, 2000). Similarly, at the National level, HIV

seroprevalence increased from about 1% in 1990 to 12.0% in 1995 and 23.5% in 2000. (Department of Health, 2000).

Another notable aspect of the study was the higher HIV Seroprevalence rate observed among females as compared with males (41.5% females vs 30% males in Bela-Bela - Warmbaths area), which is statistically significant ( $P < 0.05$ ) 24.2% females vs 20% males in Tshakhuma-Thohoyandou area (a general trend of 32.8% females vs 25% males in both areas combined), also noted to be of statistical significance ( $P < 0.05$ ). These results are in harmony with previous reports (UNAIDS, 2000). Infection rates are about three times higher in African women than those in men, and this has been attributed to age mixing between young women and older men, who have more sexual experience/expertise and are more likely to expose younger females to HIV (UNAIDS, 2000). In addition, females are readily more infected during vaginal intercourse with an infected partner than males through their sexual organ. Socio-cultural norms, uneven power relations skewed in favour of males, gender violence and rape cases have also served to exacerbate the magnitude of the problem among females.

Female morbidities and mortalities due to HIV(AIDS) are critical because the major responsibility of child care and rearing falls mostly on women and this will result in a high level of children who will be orphaned. It was estimated that nine out of 10 children will be orphaned through AIDS death (Nabarro and Mc Conel, 1983). Sexual activity tend to start earlier with orphans, their educational status is worst than that of other children and they have less stringent socialization pressure. The orphans are thus at

greater risk of perpetuating the HIV cycle. Although some institutional and community-based orphanages exist in the Northern (Limpopo) Province, intensified and sustained government efforts, care and support are sine-qua-non for the welfare, education, survival of orphans and in-particular, child-headed households.

Poverty and lack of formal employment as a result of limited educational status may be compelling factors for the spread of HIV/AIDS in rural communities of the Northern Province. About 65% of the population screened were not in formal employment, or any income generating activities such as farming or vocational activities, nor could they secure jobs as domestic workers or gardeners because the surrounding communities are predominantly poor. Because the study subjects failed to volunteer information on commercial sex-work, it was also difficult to ascribe any income generating venture to prostitution, which was suspected to be the main-stay of some of the females screened.

The symptoms presented by HIV positive individual were headache, chestpains, pneumonia and cough and these could serve as useful predictors of the disease.

It is noted that HIV seroprevalence in the two sites screened may give an indication of the unrelenting nature of the problem in the Northern Province, particularly the higher sero-prevalence rate observed among females than males and its implication on child-care and survival.

## CHAPTER 10

### SOME PERSPECTIVES OF GOVERNMENT POLICIES ON HIV/AIDS AND THE CONCLUSION OF THE STUDY

#### 10.1. Introduction.

The primary aim of this chapter is to present some perspectives on government policies on HIV/AIDS and also to conclude the study. The chapter therefore identifies the existing government policies on HIV/AIDS and thereafter presents an assessment of these policies and programmes in terms of their effectiveness and overall performance rating. The major problems facing South African government in successfully implementing the HIV/AIDS policies are also highlighted; then specific policy recommendations and strategies to mitigate the impact of HIV/AIDS on rural households, orphans and smallholder farmers are presented. The conclusion of this study and areas for future research are presented at the last section of this chapter.

Discussions on government policies, are based heavily on information obtained during field visits particularly the information collected during focus group discussions, together with data obtained from field interviews with selected policy decision makers in private and public sectors of the Northern Province. The policy makers interviews were carried out by using structured questionnaires administered to two chief directors of

government departments, and two executive directors of NGO's that are involved with HIV/AIDS community projects in the Province.

## **10.2. Identification of Existing Government Policies on HIV/AIDS.**

In South Africa, approximately 20% of the adult population is living with HIV/AIDS. The number of children who have been orphaned by HIV/AIDS is estimated to be 420,000; while approximately 250,000 people die each year from HIV/AIDS (UNAIDS, 2000).

Given these devastating statistics of HIV/AIDS on the South African population, the government of South Africa has set up strategic intervention policies to address the HIV/AIDS pandemic since the beginning of this decade. Amongst these intervention efforts are the following: the formation of National Aids Council (NAC) in January 2000; the launching of the National Government Strategic Plan on HIV/AIDS in March 2000 (this is also called "South African Strategic Plan of Action on HIV/AIDS 2001-2005"); and the holding of the 13<sup>th</sup> International AIDS Conference - "AIDS 2000 Conference" which took place in Durban in July 2000, with over 10,000 participants attending from all over the world.

The above activities and action programmes illustrate the great importance the South African government attaches to the development of sound government intervention policies and programmes which are designed to solve the HIV/AIDS pandemic in the country.

The corner stone of South African government policy on HIV/AIDS is contained in "The Strategic Plan of Action on HIV/AIDS, 2001-2005" This document contains details of South African National Government policies and programmes on HIV/AIDS. A close observation of this document will reveal that the major thrust of the government policy is to adopt a multi-prong approach to solve the HIV/AIDS problems in South Africa. It contains specific policies and programmes on HIV/AIDS prevention through use of condoms, avoiding sex with people with STD; reducing the number of sexual partners; abstinence; etc. It also contains HIV/AIDS education and information communication through Radio, TV, News Print; HIV/AIDS treatment - including treatment by traditional healers and modern medical practitioners; and the removal of social stigmatisation attached to HIV/AIDS infected individuals. It also specifies HIV/AIDS employment policy which ensures equity of treatment of HIV/AIDS afflicted individuals.

Some of the above policies and programmes have however not been well articulated and clearly understood by those who are to implement these policies and programmes.

In our effort to find out whether some decision-makers (both private and public) are aware of these existing government policies on HIV/AIDS, we requested our selected policy decision makers (2 public servants and 2 private NGO directors) to identify what they perceived as the present government's policy on HIV/AIDS at National Provincial and Local government levels. The responses obtained from these decision-makers are summarised as follows :

- (a) At the National level the South African government at present has the following policies on HIV/AIDS ;
- HIV/AIDS Prevention Policy (mainly through condomisation)
  - HIV/AIDS Information and Education Policy (mainly through the media-TV, Radio, Newsprint, etc)
  - HIV/AIDS Employment Equity Policy.
- (b) At the Provincial Level only Departmental HIV/AIDS policy exists; and at the local government or municipal level they indicated that there are no HIV/AIDS policies.

During the field survey, out of 680 household heads, who answered the question on awareness of government policies on HIV/AIDS, about 64 percent indicated that they were aware of some government policies on HIV/AIDS. The policy on HIV/AIDS prevention through the use of condoms was the policy the majority of the household heads cited.

In summary, there are some existing government policies on HIV/AIDS. These policies are mainly at the National level, with very little or no policy at Provincial levels and absolutely no known policy at the local or community level.

### **10.3. Assessment of Existing Government Policies and Programmes on HIV/AIDS.**

The existing government policies on HIV/AIDS were assessed in terms of their effectiveness in attaining the overall objectives of solving the problems of HIV/AIDS in the country. During the survey, the policy decision-makers were requested to indicate what they perceived as the major short-comings of the current government policies on HIV/AIDS. The responses obtained from them are briefly outlined below :

- The communication strategy on HIV/AIDS from the office of the Deputy President appears to be overtly remote from the intended beneficiaries at the local level.
- To improve the above situation the National office in charge of HIV/AIDS needs to meet quarterly with the Provincial Departments to share their experiences and map out policy implementation strategies.
- At the Provincial level, funds on HIV/AIDS programmes are only made available to the Office on status of Women (Premier's Office) and Department of Health and Welfare. Since HIV/AIDS is a problem for each government department every provincial government department, must be allocated funds for its HIV/AIDS programme. These funds can come from the office of the Premier, or from the National HIV/AIDS office.

- For a successful policy implementation, there is a need to train HIV/AIDS coordinators for each Department in the Province.

At the local government or municipal level, there are currently no village or community committees on HIV/AIDS to establish, implement, and monitor HIV/AIDS projects at community levels. Since the HIV/AIDS problem should be solved by using community approach, this shortcoming should be addressed immediately by the government.

- A major weakness of the existing policy is that there are no specific programmes designed to assist HIV/AIDS orphans. There are approximately 420,000 HIV/AIDS orphans in South Africa, therefore they should be supported by government policies and programmes. This weakness needs to be rectified by the government so that HIV/AIDS orphans can receive specific government grants, which can assist them to pay for their feeding, housing, education, healthcare and counselling.

As a means of obtaining some objective assessments of the existing government programmes and policies on HIV/AIDS, the policy decision-makers were also requested to rate the performance of the government in its implementation of the HIV/AIDS programmes/policies. This performance rating varies from excellent to good, fair, poor, and very poor. The excellent rating has a score of 5 points; and the very poor ranking has the least score of 1 point. The weighted rating by the four respondents are presented in table 10.1.

Table 10.1. : Assessment of Government HIV/AIDS Policy and Programmes by Selected Respondents.

HIV/AIDS Programmes/Policy	Performance Rating	Weighted Scores (out of 5)
Condom Distribution	Poor	2
Aids Education and Information Dissemination	Fair	3
Care of Aids Orphans	Very Poor	1
Care of Aids Patients	Poor	2
Provision of Hospital and Clinics	Very Poor	1
Aids Employment Policy	Poor	2
Aids Vaccine Research	Very Poor	1

Source : Field Survey 2001

A close observation of table 10.1 reveals that of the seven identified government HIV/AIDS programmes only one was rated to have attained a fair or average performance by the policy makers. This is the programme on HIV/AIDS education and information dissemination, which has informed the majority of the population of South Africa, whether rural or urban, about HIV/AIDS. Condom distribution and Aids Employment policy were rated as "poor"; in which case considerable expansion of these programmes are urgently required. Also rated "poor" was the treatment of HIV/AIDS patients and the care and support including counselling that they require for survival. The least in terms of performance rating was care of HIV/AIDS orphans and Research on AIDS vaccines. Considerable efforts are therefore

required by government on these two major HIV/AIDS programmes before the HIV/AIDS pandemic can be tackled effectively across the entire nation.

#### **10.4. Major Problems Facing South African Government in the Implementation of its HIV/AIDS Policies and Programmes.**

Given the poor level of performance on some existing government HIV/AIDS programmes the following question was posed to the respondents : "what are The major problems facing South African government in successfully implementing their HIV/AIDS policies and programmes?" The respondents answers to the question are summarised below :

- Lack of political will and commitment : HIV/AIDS is a major national disaster which requires strong commitment and political will to tackle. This political will should be expressed in form of committing sufficient resources to tackle the problem from a hollistic perspective.
- Social and cultural stigmatisation attached to HIV/AIDS affected households. This problem militates against open treatment of HIV/AIDS patients as well as open discussions of the HIV/AIDS problems at community level.
- Inadequate medical facilities and clinics particularly in the rural areas; hence majority of the infected individuals resort to use of traditional herbs and "Sangoma" for the treatment of HIV/AIDS.

- Inadequate funds for HIV/AIDS programmes : Given the fact that about 4.7 million South Africans are now HIV positive, and that approximately 250,000 South Africans die annually as a result of HIV/AIDS, sufficient funds should be allocated by the National government to the HIV/AIDS programmes in the country.
- Lack of supply of affordable drugs : Drugs for treatment of HIV/AIDS are very expensive and the national government is yet to decide on the wide use of generic drugs for HIV/AIDS treatment.

#### **10.5. Specific Policy Recommendations and Strategies to be Adopted.**

Since the focus of this study is to assess the economic impact of HIV/AIDS on rural households, orphans, and smallholder agricultural production, the policy recommendations offered here are designed to mitigate the impact of HIV/AIDS on households, orphans and smallholder farmers. Our specific policy recommendations at household level, for orphans and for the smallholder farmers are outlined below.

##### **(a) Household Level Policy Recommendations.**

Our study has revealed that the major economic impact of HIV/AIDS on rural households is the loss of household income, due to death of household members and/or loss of job due to chronic illness of household members. There is therefore an absolute necessity to strengthen and expand the

income base of rural households. This can be done through a variety of strategies, some of which are identified below :

- i) There is need to diversify rural household income by encouraging rural households members to be involved in other jobs to supplement their income. For instance, household members who have informal employments can start raising livestock such as poultry for sale to supplement their monthly salary.
- ii) As a means of strengthening the income base of rural households there is a need for the government to set up micro-credit schemes for rural people, to kick-start the development of small scale enterprises among the rural population. This can be done by the Provincial and National governments working in close collaboration with the community based organisations (CBO) and NGOs who are experienced in promoting income generation projects in the rural areas.
- iii) Rural household incomes can also be enhanced if government sets up poverty eradication projects in rural areas. Such poverty eradication projects can provide jobs and incomes to a large number of rural household members who are currently unemployed. Such poverty eradication projects should also be aimed at eradicating structural poverty by constructing rural infrastructures, such as rural roads, primary health clinics and other community facilities. This will generate income for rural

households and at the same time enhance the quality of life of the rural people.

**b) Recommendations on Orphans.**

- i) The National government has the responsibility to provide for the HIV/AIDS orphans' welfare. This can be done by the government providing "special grants" to HIV/AIDS orphans. This grant can be paid through community based organisations responsible for the welfare of these orphans. The HIV/AIDS orphans grant should be a special grant which should be much higher than the present child support grant of R110 per child per month; and it should be sufficient to cover the orphan's payment for health care, school fees, feeding, clothing and living expenses. Orphans living with guardians or grandparents should receive these grants through their community based organisations or their local government. It is important to stress that government's support and care for orphans should be regarded as an important strategy to mitigate the impact of HIV/AIDS on children.
- ii) The home based care for orphans appears to be cost effective but some of the children under this care-system do not have access to good education and health care. The home-based care system of orphans should therefore be strengthened by linking them to the activities and programmes of the community based organisations or NGOs, which can provide them the access to good education and

health care, required to develop these orphans so that they can attain their full potentials in future.

**(c) Recommendations on Smallholder Agriculture.**

Smallholder farming is an important production activity among rural households. This is geared towards meeting household food needs and also to provide some income for the household members. The major impact of HIV/AIDS on smallholder agriculture manifests in form of reduction in agricultural output, reduction in farm sizes, and reduction in agricultural income as well as reduction in farm labour. The following specific recommendations are offered to mitigate the effects of HIV/AIDS and strengthen smallholders' agricultural production system.

- (i) Smallscale farm credit scheme should be established to help smallholder farmers to purchase improved farm inputs such as high yielding seed varieties; fertilizers and labour saving technologies, which can be used to improve their crop output and agricultural incomes. The credit could be a special loan programme under the micro-lending scheme, proposed earlier for rural households.
- (ii) Smallholder farmers should form cooperative organisations, and such cooperatives can promote labour sharing and cooperative input purchases; this can enhance the farmers' access to bank loans for farming projects on group basis.

- (iii) Smallholder farmers should diversify their agricultural production system by producing those crops that are less labour intensive and include those crops that can earn them higher agricultural incomes which can be used to meet up with increased medical costs and other household expenses. They should be assisted by their local extension officers in their choice of crops and purchase of agricultural inputs. This will provide them the opportunity to use improved higher yielding varieties and labour saving technologies.

### **Recommendations on Sero-Prevalence Survey**

Voluntary Counselling and testing (VCT), which is the hallmark of sero-prevalence surveys should be set-up in rural areas because it provides prompt and good entry points for continuum of care for positive cases.

#### **(d) Role of Government.**

Government is expected to play pivotal role in mitigating the economic impact of HIV/AIDS on rural households, orphans and smallholder farmers.

In providing households' access to primary health care and with the provision of rural infrastructures such as access roads, rural clinics, schools, the quality of life of the rural households can be enhanced. The National and Provincial governments should be committed to poverty eradication at the rural areas, since poverty is a major factor worsening the economic impact of HIV/AIDS.

Government programmes on AIDS prevention/awareness, education and Voluntary Counselling and Testing (VCT) should be expanded in rural areas to reach children and youths through schools and community broadcast.

The provision of special grants for HIV/AIDS orphans and the establishment of micro-credit scheme together with poverty eradication projects for rural areas will inevitably require government fiscus, political will and full commitment on the part of government, before the impact of HIV/AIDS can be successfully mitigated.

#### **10.6. Conclusion of the Study.**

In conclusion, this study has shown that economic impact of HIV/AIDS on rural households can be very devastating. Apart from the death of household members, which reduces household labour force available for productive purposes, HIV/AIDS affected households encountered some significant decline in their household income. This decline in income exacerbate rural household poverty, which may further accentuate the spread of HIV/AIDS in the community. Affected households also encountered some changes in their household expenditure patterns with increased expenditures on health and medical care transportation; and funerals; but expenditures on education, housing and remittances going out from households were reduced.

Another major economic impact of HIV/AIDS on rural households was the reduction in household saving and a significant increase in households loans

obtained from relatives, to meet up with increased household expenses on medical care and funerals.

Rural households coping strategies included withdrawal of children from schools, to reduce or minimize payment of school fees, and the sale of household assets to meet up with increase household expenses engendered by the HIV/AIDS pandemic.

The impact on smallholder agriculture manifests informed of reduction in household labour available for farm production; reduction, in agricultural output, reduction in farm area cropped and a decline in agricultural income.

HIV/AIDS orphans appeared to suffer the most tragic consequences of the HIV/AIDS pandemic. They are highly vulnerable to stress, anxiety and may suffer depression due to the tragedy of losing their parents. HIV/AIDS orphans experienced social stigmatization and quite often did not have access to schooling and health care facilities. Our case study of orphans in the Northern Province reveals that the home-based care system for orphans is by far more cost effective than the institutional orphanage but some home-based orphans did not have easy access to schooling and adequate health care services.

The high sero prevalence rates noted in this study, particularly among females, may impact negatively on the future generation and economy of the country because the major responsibility of child rearing falls mostly on females.

Given the impact of HIV/AIDS on rural households, orphans and smallholder agriculture as well as the high sero-prevalence rates, government at National, Provincial and Local levels need to mitigate these adverse impacts of HIV/AIDS, by setting up poverty eradication projects in rural areas, providing micro-credit to rural households for employment and income generation and introducing Voluntary Counselling and Testing (VCT) centers in rural areas for prompt medical attention and continuum of care of seropositive cases. Government is also encouraged to provide special grants to HIV/AIDS orphans, so that they can have money to pay for their health care, schooling and other living expenses.

The role of government in mitigating the economic impact of HIV/AIDS on rural households, orphans and smallholder farming is therefore very crucial. Government requires the political will and absolute commitment before it can succeed in performing this crucial role.

#### **10.7. Areas for Further Study.**

Some key research areas have not been covered in this study. These areas are identified as follows :

##### **(a) Gender Impact Assessment.**

Due to lack of time and other resources the impact of HIV/AIDS on female-headed households as compared with male-headed households was not addressed in this study. Given the fact that the largest burden of HIV/AIDS is carried by females, there is a need for future research to

focus on gender impact assessment with the aim to unravel appropriate supportive mechanisms necessary to alleviate this disproportionate burden on females.

**(b) Impact of HIV/AIDS on child-headed Households.**

This study has revealed that about 2 percent of the 680 rural households surveyed are headed by children aged 15 years or below. The existence of child-headed households (i.e. orphans becoming parents to their brothers and sisters) presents a unique socio-economic research topic requiring further investigations.

For instance, what are the coping strategies adopted by these child-headed households? What supportive mechanisms can community-based organizations (CBOs) provide to mitigate the impact of HIV/AIDS on this type of households? What is the role of government in providing care and welfare services to child headed households? Future research on child-headed households is urgently needed to provide appropriate answers to these and other important questions on child-headed households.

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