

**THE MULTISECTORAL SOCIOECONOMIC IMPACT
OF HIV/AIDS IN TANZANIA**

By

THE ECONOMIC AND SOCIAL RESEARCH FOUNDATIONS

15 December 2002

Table of Contents

1.0	INTRODUCTION.....	1-1
1.1	BACKGROUND INFORMATION	1-1
1.2	THE FOCUS OF THIS ADDRESS	1-2
2.0	ECONOMIC AND SOCIAL IMPACTS	2-1
2.1	ECONOMIC IMPACT OF THE PANDEMIC.....	2-1
2.1.1	<i>On Agriculture and Food Security.....</i>	<i>2-1</i>
2.1.2	<i>On the Social Sectors</i>	<i>2-4</i>
2.1.3	<i>On Industry/Enterprises.....</i>	<i>2-7</i>
2.1.4	<i>On Other Sectors.....</i>	<i>2-8</i>
2.1.5	<i>Macroeconomic Impacts.....</i>	<i>2-9</i>
2.1.6	<i>On Human Development</i>	<i>2-11</i>
2.2	SOCIAL IMPACTS	2-11
2.2.1	<i>AIDS and Social Networks.....</i>	<i>2-11</i>
2.2.2	<i>AIDS and Orphans.....</i>	<i>2-12</i>
2.2.3	<i>Discrimination and Stigmatisation</i>	<i>2-13</i>
2.3	HIV/AIDS AND POVERTY	2-13
3.0	MULTI-SECTORAL APPROACHES AND RESPONSES TO THE PANDEMIC.....	3-1
4.0	CONCLUSIONS	4-1
5.0	REFERENCES.....	5-1

1.0 INTRODUCTION

Your excellency Ali Mohamed Shein the Vice President of the United Republic of Tanzania,
Your Excellency the Retired President of the URT, Mzee Ali Hassan Mwinyi,
Honourable Ministers,
Distinguished Participants,
Ladies and Gentlemen,

When ESRF was approached and requested by the conference organizers to present a Key Note Address, we did not hesitate. We saw this as yet another opportunity for us to share our experiences and knowledge but even more important to learn from others about HIV/AIDS and its impact on our country and beyond.

I am here today to talk about an important subject, namely the Multisectoral Socioeconomic Impact of HIV/AIDS in general and in Tanzania in particular.

1.1 Background Information

HIV/AIDS has moved beyond its initial status as a health sector problem to a wider scale as a development issue, having social, cultural, political and economic implications. The AIDS epidemic claimed more than 3 million lives in 2002, and an estimated 5 million people acquired the human immunodeficiency virus (HIV) in 2002 bringing to 42 million the number of people globally living with the virus (UNAIDS, 2002). Of the 42 million people living with the HIV/AIDS (PLWHA), 29.4 million are residing in Sub-Saharan Africa. Besides the cost in terms of loss of life, HIV/AIDS is having profound effects on Africa's economic development yet the ability to cope with the pandemic is limited. Alarming, this proportion is set to grow even further as infection rates continue to rise where a combination of endemic poverty, fragile health infrastructure, and limited investments in preventive programs fuel the spread of the deadly virus.

According to Bonnel (2000) for example, a significant decline in Africa's per capita income during the period 1990 to 1997 was attributed to the HIV/AIDS pandemic. Thus, HIV/AIDS epidemic is a broader development problem rather than just a health problem. It is estimated that developing countries with a prevalence rate of 20 percent will experience a Gross Domestic Product (GDP) rate of growth that is 2.6 percent less annually than would otherwise be the case (Bonnel, 2000). The pandemic needs to be controlled to shield the economic achievements attained in recent years and the heartening impacts achieved due to the ongoing poverty reduction initiatives in different Sub-Saharan countries.

Almost two decades after the first 3 AIDS patients were confirmed in Tanzania, the threat of the pandemic is now more glaring than ever before as the prevalence and incidence rate among some groups of the population increase. It is estimated that by November 2000, 1.8 million people had been infected with HIV in Tanzania (NACP, 2000). The pandemic continues to spread with some urban areas having an infection rate of more than 20 percent (UNAIDS, 2001a). In various African countries, Tanzania included, the reversal of earlier gains in life expectancy and morbidity and mortality rates among vulnerable groups such as infants, children and women is attributed to the spread of HIV/AIDS.

Today, it is widely acknowledged that HIV and AIDS have substantial economic and social impacts on individuals, households, communities and thus on society as a whole. The pandemic is killing people in their most productive years, decimating the workforce, impoverishing households, shredding traditional safety nets and tearing the social fabric of the communities, for many the only reliable support systems. Furthermore, AIDS has destabilized the health systems, education, industry, and the formal and informal agricultural sectors. In addition, the pandemic has resulted to the increased number of orphan-headed households and grandparents struggling to care for their numerous grandchildren. Also there is an increase in the number of marginalized people living with HIV/AIDS who have no place to turn to for support. The episode has also led to the growing number of Community Based Organizations (CBOs) and self-help groups with limited coping capacity and scarce resources.

1.2 The Focus of this Address

I believe that this conference has been motivated by the widely voiced concern that the pandemic has been recognized to be a major national crisis of unprecedented magnitude and impact to humanity and development. The overall objective of the address is therefore to discuss multisectoral socioeconomic impact of HIV/AIDS in Tanzania. The multisectoral impact has been analyzed using the available information on Tanzania, supplemented by some findings from other African countries, owing to the fact that studies on multisectoral impact of HIV/AIDS in Tanzania are scanty.

This address is organized into four major parts. The introduction is provided in section one, which is followed by a discussion on economic consequences of the HIV/AIDS pandemic on different sectors and industries, some social impacts of the pandemic, and the linkage between HIV/AIDS and poverty in section two. Section three explores the multi-sectoral approach and responses to the pandemic whereas section four makes some conclusions.

2.0 ECONOMIC AND SOCIAL IMPACTS

As noted, HIV/AIDS has substantial economic and social impacts on the affected communities. Economic impact occurs when there is a diversion of resources to other uses that would not have been necessary in the absence of HIV/AIDS, and also when production declines due to the disease. The social impact may be defined as any sudden shock or slow-acting and cumulative series of events that disrupts existing systems of social support (UNAIDS, 2000a). The social and economic impacts of HIV/AIDS are transmitted through intermediary economic and social variables, which affect households and sectoral economic and social conditions. The aggregate household and sectoral economic and social impacts of HIV/AIDS are ultimately reflected in the national economic performance as well as the overall development of the country.

2.1 Economic Impact of the Pandemic

2.1.1 On Agriculture and Food Security

In the 1980s, the AIDS pandemic was largely concentrated in urban areas, townships and border posts and was largely associated with activities of truck drivers and prostitutes. In the 1990s the disease had spread to rural areas due to the urban-rural migration. These developments have had an adverse impact on agricultural production. Estimates show that by the year 2015 there will be more people in rural areas infected with HIV/AIDS than in urban areas (URT, 2000). This is an alarming situation particularly because agriculture is an important sector to the economy of the country, accounting for about 85 percent of the rural employment.

HIV/AIDS has a severe impact on household economic performance through declining productivity, which is an outcome of reduced man-hours and capital resources allocated for production. Following this pandemic, more time and financial resources are spent to care for the sick and searching for medical services. The impact on household occurs as soon as a member of the household starts suffering from HIV/AIDS related illnesses until after death where coping to mitigate the impact starts. A conceptual framework on the economic impact of adult morbidity and mortality due to HIV/AIDS presents an overview of the economic impacts likely to be experienced by agriculture dependent households that encounter HIV/AIDS as follows (Gillespie et al., 2001; Gillespie and Haddad, 2002).

- *Loss of labor*

Family members and people living with HIV/AIDS (PLWHA) are drawn away from production and other income-generating activities to care for sick relatives, orphans or themselves.

- *Loss of capital*

Households are forced to divest their incomes, tangible assets and savings for medical care, transportation, funeral expenses, and other immediate expenses.

- *Food insecurity increases*

Food security is affected both in terms of quantity and in terms of quality as a consequence of a drastic decline in productivity of the household unit and as the result of sales of food and cash crops to get cash to cater for medical and other expenses.

- *Change of the farming system*

Households may switch to less labor-intensive crops and farming systems. However, there are trade offs. For example, the cultivation of tubers is less labor intensive than other staple crops but the tubers happen also to be less nutritious

- *Loss of income*

Loss of income is from less labor-time from the sick person and other people in the household who would spend time to take care of the sick.

- *Decrease in Remittances*

Remittances (informal insurance) from the person with HIV/AIDS and the household at large to other people and households are decreased.

- *Loss of opportunities*

Children are withdrawn from school due to lack of resources but also because extra labor is urgently needed. Usually daughters may miss school in order to work as a substitute and/or take care of the sick person.

- *Increased household expenditures*

Medical and funeral costs increase significantly in a household with an individual suffering from HIV/AIDS.

Few of these potential household impacts and impinging economic and social costs have been quantified in Tanzania (Over et al., 1996; Tibaijuka, 1997; Rugalema, 1999; Mujinja, 1999; Lundberg et al., 2000; UNAIDS 2000b). A study conducted in Kagera region (Over et al., 1996) found that with the illness and death of economically active household members from AIDS-related causes, the total income per capita and total consumption per capita decreased dramatically. It has also been found that the poor households, children and women in Kagera

region of Tanzania are more affected by the impact of HIV/AIDS than relatively richer ones (Over et al., 1996; Lundberg et al., 2000).

A study by Rugalema (1999) reveals that AIDS affliction leads to accelerated consumption of household cash, mainly in the process of seeking treatment and in attempts to restore health. In addition, AIDS illness in the household leads to disposal of other productive assets. A wide variety of assets, except land are disposed of to generate cash for use in treatment.

A study by UNAIDS, (2000b) reveals that a woman with a sick husband spent 60 percent less time on agricultural activities than she would normally do. This illustrates the strong inter-relationship between subsistence agriculture and the labor resources of the household. A smaller financial base of the household with a sick individual forces the household to reduce consumption and hence the quantity and quality of food (Michiels, 2001). Food consumption has been found to drop by 41 percent in families hit by AIDS related diseases (Isaksen et al., 2002). Another study conducted in Kagera region shows that, among the poor, AIDS deaths led to general consumption drop of 32 percent and food consumption drop of 15 percent (UNAIDS, 2000c).

Medical and funeral costs leads to a significant increase in household expenditure. Tibaijuka, (1997) reports that in Kagera region virtually all households' cash income was used to pay for medical bills due to AIDS. Households had to sell assets or borrow funds to cope with the increased expenditure. The study further reports that households with an AIDS death spent an average 50 percent more on funerals than medical care.

HIV/AIDS is reportedly to have a significant impact on land tenure. The impact of the pandemic on land management had resulted in a depressed quality of life and unsustainable livelihoods in affected rural households according to the findings of a study by Mphale (2002) carried out in Lesotho. Coping strategies adopted by rural communities are becoming increasingly inadequate in the face of the prevalence of HIV/AIDS and acute food shortages. The findings show that, people living with HIV/AIDS were increasingly employing sharecroppers, as they were often too sick to work their fields. This arrangement avoid the risk of their land being revoked and at least assured them of continued access to agricultural land and food, as the land reform policies have revoked land left fallow for two years.

2.1.2 On the Social Sectors

2.1.2.1 The Health Sector

There is limited evidence concerning the economic consequences of the pandemic on health services in Tanzania, especially in rural areas. The available information is more on the number of HIV/AIDS cases attended in health facilities (NACP, 2000), and not how they generally impact on health services. However, an earlier study in Tanzania by World Bank shows that in 1993 the average cost incurred per adult AIDS patient over the duration of the patient's illness was approximately Tshs 50,000, assuming that the centralized health care delivery system remains in place and that 60 percent of the drugs required to treat the disease is actually available. For the children the annual figure was Tshs 34,000 (World Bank, 1993). It is clear that AIDS related health care costs could become a tremendous burden as the epidemic worsens. Such impact has an implication on the government expenditure on the health services bearing in mind that the majority of Tanzanians live in the rural areas and they depend on government facilities for health services. As Drysdale (2000) correctly observes (using the South Africa health sector as an example that) the weakness in the health sector, in one way or another, facilitates the spread of HIV.

A more recent study in Kenya estimated the costs for HIV/AIDS treatment for inpatient and outpatient care in the public, private and mission health centers, as well as the cost of home based care. Findings from this study reveals that, the total annual health care treatment costs for persons with HIV and AIDS of all age groups grow eight-fold from Kshs 1.4 billion in 1990 to Kshs 11.2 billion in 2010 under the high estimate and from Kshs 480 million in 1990 to Kshs 3.7 billion in 2010 under the low estimate (Leighton, 1996). This analysis suggests that the burden of inpatient hospital stays could be overwhelming. The same study reports further that some hospitals in Kenya estimate that patients with AIDS occupy more than 50 percent of their available beds. By 2010, under the high assumptions, the demand for HIV/AIDS hospital days would represent 185 percent of Ministry of Health inpatient capacity.

The cost in terms of time is also substantial. A study in Zimbabwe indicated that HIV/AIDS patients required considerably more hospital care than non-HIV/AIDS patients. In five of the seven hospitals visited, the average cost of an inpatient stay for an HIV/AIDS patient was found to be twice as much higher than that of a non-HIV/AIDS patient (Hansen, 1999 cited in Isaksen et al., 2002). Another study on the social and economic impact of HIV/AIDS on health sector using Mbeya Urban as a case study reveals that clinicians spend about 12.5 minutes on average per regular patient. An extra 19 minutes on average is added if they are

attending to an AIDS patient (ESRF 2002). The time spent may even be longer depending on the stage of disease the patient has reached.

The economic impact of HIV/AIDS on health services was studied in Hlabisa District, KwaZulu-Natal, South Africa, for the period 1991-1998. This is a rural area where HIV seroprevalence increased from approximately 2 percent to 29 percent between 1991 and 1998. The study further reveals that hospital admissions grew 81 percent (1991-1998), tuberculosis (TB) admissions grew 360 percent, and those for AIDS-defining conditions other than TB grew 43-fold. The HIV/AIDS epidemic has thus had a major economic impact on hospital services in this district (Floyd et al, 2000). The single largest impact has been HIV-related TB, but the importance of AIDS-related morbidity and early HIV-attributable morbidity, especially on the adult and children medical wards, also needs to be recognized.

Early studies showed no positive link between HIV infection among health staff and exposure to patients. However, healthcare workers constantly work with fear of contracting HIV from patient contact, and many of them attend fatally ill patients on daily basis. In addition, the overloading and under-funding of the health system and rising number of patients with HIV/AIDS opportunistic infections raises the stress levels for health care workers. The psychological stress such working conditions generate, combined with the increased absenteeism of HIV-infected workers, are likely to cause a drop in the production and the quality of work in the sector.

2.1.2.2 Education Sector

The volume and quality of education services depend on the number of teachers, teaching facilities, and on system managers. HIV/AIDS has been threatening the supply of educators. For teachers, the risk is not simply of infection but also of dying of the disease. Recently, the Minister for education and culture reported that more than 2 teachers were dying in a district every month, and consequently more than 1,500 teachers die in the country every year.

Thus the erosion of human resource is clear in education sector through increased mortality and morbidity of teaching staffs. The Mbeya Urban case study revealed that on average 8 teachers died every year in the district in the period between 1999 and September 2002 due to HIV/AIDS and majority (88 percent) of those certified to have died were females¹. However, according to District Education Officer (DEO) this data is underestimated as few teachers are

¹ It should be noted that proportionally there are more female teachers than male. Total number of primary school teachers in the district in year 2002 is 1202 whereby 285 are male and 917 are females

clinically certified to have died of HIV/AIDS². Though the number of teachers who have died due to HIV/AIDS is insignificant (0.07 percent of the total number of teachers in the district), its cumulative impact to the district is enormous when taking into account medical, transport and burial expenses incurred (2,080,000 Tshs for the period between January and September, 2002). Probably, when other districts are analyzed a clear impact can be established at the macro level.

In Zambia, for example, the mortality rate amongst teachers in 1998 was 39 per 1000 teachers, 70 percent higher than of the 15-49 age group in general in the population. In Malawi, the World Bank has predicted that over 40 percent of education personnel in urban areas will die from AIDS by 2005 (World Bank 1998b cited in Isaksen et al., 2002). The same report further pointed out that 85 percent of schools in the province studied in South Africa have reported the death of teachers “presumably” from AIDS related illness. The loss of qualified teachers will severely undermine the education system in countries hard hit by the pandemic.

Most of the focus on the impact of HIV/AIDS on the sectors workforce had been on teachers, but managers appear to be in a much shorter supply than teachers. An increase in the morbidity and mortality among them may have huge consequences.

The learning process in schools will be negatively affected through increased absenteeism, both of the pupils themselves and of teachers, as a result of the epidemic. Infected teacher and education officer will loose six months of professionals time before developing full-blown AIDS and then an additional 12 moths after developing full-blown AIDS (Isaksen et al., 2002). Furthermore, teachers are likely to face a higher stress in the job as children from households that have been affected and infected with HIV/AIDS are forced to drop out of school, or attend sporadically, due to greater responsibilities back home, lack of funds or being orphaned

The survey done in Mbeya district by ESRF (2002) revealed that school absenteeism was mainly attributed to the combination of various factors. The most important ones were working to support other siblings and taking care of sick members of the family. Report from teachers showed that students whose parents were sick/had died of AIDS were absent in schools in a period ranging between 0-41 days between January and September 2002. There are also other students (17 percent) who have been forced to look for employment after school hours or during vacation. Some of them work as casual laborers in farms or in other

² On average 17 teachers died per year in the district for the period between 1999 and September 2002 due to different causes.

households as domestic servants. Others are involved in selling fruits or second hand clothes (*mitumba*). As a result of this, there has also been a decline of attendance and subsequently their performance in schools.

2.1.1.3 On Industry/Enterprises

The enterprises include service and goods producing units from one-man business to large manufacturing or service enterprises. Most studies in Tanzania have put emphasis on the epidemiology of the disease, estimating prevalence and incidence, in workplaces³. The economic aspects that have been looked at in these studies, if any, have mainly been narrowly confined to estimating treatment expenditures (Boerma and Bennet, 1997). In some firms and other workplaces the assessments that have been done have remained the property of the company, not for public domain (Mujinja, 2002). Baseline assessment studies have been carried out by some parastatal organizations such as Tanzania Electrical Supply Company (TANESCO), National Insurance Corporation (NIC) and, Parastatal Pension Fund (PPF), and private employers like Tanzania Breweries. However, this information has not been put together for a systematic impact assessment, it has remained fragmented in respective business sectors (Mujinja, 2002).

However, the pandemic has been found to have severe impact on the individuals' productivity and thus firm's profits in some Sub-Saharan African countries. The pandemic is associated with

- ***Reduced labor supply***

The HIV/AIDS pandemic has an impact on labor supply, through increased mortality and morbidity. This is compounded by loss of skills in key sectors of the labor market. In South Africa, for example, around 60 percent of the mining workforce is aged between 30 and 44 years. In 15 years this is predicted to fall to 10 percent (Dixon et al., 2002).

- ***Reduced Labor Productivity***

Absenteeism due to HIV/AIDS leads to a direct loss in productivity. People become absent due to their own illness, or illness in the family. One review reported that the annual costs associated with sickness and reduced productivity as a result of HIV/AIDS ranged from US\$17 per employee in a Kenyan car-manufacturing firm to US\$300 in the Ugandan Railway Corporation (Dixon et al., 2002). Government incomes also decline, as tax revenues fall, and governments are pressured to increase

³ Most of the studies are not published or formally processed.

their spending, to deal with the rising prevalence of AIDS, thereby creating the potential for fiscal imbalances.

- ***High labor turnover***

A high turnover in the workforce means more resources used on training and education of new staff. Looking at eight African countries with HIV prevalence rates higher than 10 percent of the adult population, an International Labor Organization (ILO) study states that the labor force in the year 2020 will be an estimated 10-22 percent smaller in those countries⁴. The loss of workers, often skilled and experienced together with increased entry of young unskilled personnel into the labor market is likely to lower both the quality and quantity of workforce. Replacement of skilled labor is a slow and expensive process, and labor cannot be shifted simply from one sector to another (agriculture to health, for example) in responses to shortages in skills.

- ***Impact on product demand***

High HIV prevalence and increased morbidity have effects on demand. Most goods are sensitive to consumer income levels. When capital is used for care and medicines, the proportion left for consumption of other goods shrinks. The result will be an increase in demand in some markets and decrease in the other.

2.1.4 On Other Sectors

Transport, mining and construction, and financial sectors are also seriously impacted by the pandemic. Truck drivers spend long time away from their families and are relatively affluent. They are thereby very susceptible to catching HIV and to spreading the virus. All available surveillance data indicate that infection rates are high and continue to rise along the main transportation corridors.

The mining and construction sectors are particularly vulnerable to impact of HIV/AIDS because they are characterized by the requirement for workers to stay away from their homes for a long period of time. No study has been conducted in Tanzania to assess the prevalence of HIV/AIDS in mining areas but data from other countries show that the prevalence is alarming. For instance, gold mining giant AngloGold Company, which has branches in South Africa, Argentina, Australia, Brazil, Mali and Namibia, estimated that between 25-30 percent of its South African workforce was HIV positive (InteliHealth, 2002). Gold Fields, a gold mining company based in South Africa reports that although they have been barred from

⁴ The countries are: Botswana, Kenya, Malawi, Mozambique, Namibia, South Africa, Uganda and Zimbabwe.

screening employees for HIV/AIDS since 1998, it is estimated that more than 25 percent of its 50,000 strong workforce is HIV positive. It is projected that the AIDS pandemic will cost the company up to US\$10 per ounce of gold it mines in added production costs if no interventions are put in place (BBC News, 2002).

Employees in the financial sector are generally drawn from a small group of educated and professions people. The cost of employee infection could be huge due to high healthcare benefits, scarcity in supply of personnel, and time-consuming training and replacement. In a study of Barclays Bank in Zambia, the cost of staff deaths was approximately US\$44,000 for 28 diseased staff in 1991; US\$157,440 for 38 diseased in 1992, and the projections were worse for the subsequent years (Isaksen et al., 2002).

2.1.5 Macroeconomic Impacts

Estimating the combined impact of various interdependent effects on the performance of an economy is a complex task. To simplify the measurement of “economic performance,” economists have tended to focus on average income, GDP, and GDP per capita. Macroeconomic impact studies have used regression analysis to estimate the impact of the prevalence of HIV on the rate of growth of GDP per capita, while controlling for other factors that might also affect growth. The consensus from these studies is that the net effect on the growth of GDP per capita will be negative and substantial. The more recent studies show greater effects, and the most recent indicate that the pandemic has reduced average national growth rates by 2-4 percent a year across Africa.

Another class of Mathematical models commonly known as the Computable General Equilibrium (CGE) models allow the estimation of the differential effects of the pandemic across sectors be estimated. Studies that used these models predict greater economic effects of the pandemic than regression analysis, and they also find a significant variation across industrial sectors. Kambou et al., (1992) assessed the impact on Cameroon’s economy of changes in the skill composition of the labor force resulting from the HIV/AIDS epidemic. They concluded that unavailability of skilled labor would reduce growth rates by about 50 percent and investment by 75 percent, that imports of food and other basic products would increase, and that exports of manufactured and other products would decline. More recently Arndt and Lewis estimated that by 2010 South Africa’s GDP per capita will be some 8 percent lower and consumption per capita will be about 12 percent lower than would have been the case without the HIV/AIDS pandemic. Table 1 gives a summary of some macro impacts of the pandemic in Africa.

Table 1: Summary of Studies of the Macroeconomic Impact of HIV/AIDS in Africa

Study	Countries (period of economic data)	Period of most recently used HIV/AIDS data	Results (comparisons with non-HIV/AIDS scenario)
Dixon et al (2001)	41 countries (1960-98)	Late '90s	Growth rates reduced by 2-4 percent; large variation across countries, in line with prevalence of HIV.
World Bank (2001)	Swaziland	Early '90s	Average rate of growth of GDP in 1991-2015 will be 1.5 percent lower a year.
World Bank (2001)	Namibia	Early '90s	Average rate of growth of GDP in 1991-2015 will be 1.1 percent lower a year.
World Bank (2000)	Lesotho	Late '80s	Average rate of growth of GDP in 1986-2015 will be 0.8 percent lower a year.
Bonnel (2000)	About 50 counties (1990-97)	Mid '90s	Rate of growth of GDP per capita reduced by 0.7 percent a year in the late 1990s.
Quattek et al (2000)*	South Africa	Mid '90s	Average rate of GDP growth over next 15 years will be 0.3-0.4 percent lower a year.
BIDPA (2000)*	Botswana	Late '90s	Average rate of growth of GDP in 2000-2010 reduced by 1.5 percent a year.
Bloom et al (1995)*	51 countries (1980-92)	Early '90s	Insignificant effect on income growth.
Cuddington and Hancock (1994)	Malawi	Early '90s	Average rate of growth of GDP in 1985-2010 reduced by up to 0.3 percent.
Cuddington, (1993)	Tanzania	Early '90s	Per capita GDP in 1985-2010 up 10 percent smaller.
Over (1992)	30 Sub-Saharan countries	Early '90s	Rate of growth of GDP per capital in 1990-2025 reduced by 0.15 percent (0.6 percent in 10 worst affected countries).

* Cited in Dixon et al., (2002).

The pandemic is also associated with reduced exports and increased imports. Lower domestic productivity reduces exports, while imports of expensive healthcare goods may increase. The decline in export earnings will be severe if strategic sectors of the economy are affected, such as mining in South Africa. Consequently, the balance of payments (between export earnings

and import expenditure) will be affected which can disrupt the government budget processes. This can seriously impair the debt repayment capacity and encourage borrowing from both internal and external sources.

2.1.6 On Human Development

It has been observed that life expectancy may be directly related to standards of living and this serves as an aggregate measure for human development. Countries in Sub-Saharan Africa with a matured HIV/AIDS epidemic and prevalence are known to have inadvertently stunned human development progress, and as a result, life expectancy has been cut in half. It is reported that in Zambia there is a 10 years loss in human development progress (Okonmah, 2002). The same author further reports that in Tanzania, there is a loss of 8 years. In Zimbabwe, Burundi, Malawi, Kenya and Uganda the loss ranges from 3 to 5 years while in the Central African Republic there is a loss of 6 years.

The decline in life expectancy coupled with slow growth in average per capita income are known to have more effect on poor people--especially those who are already the most deprived and the least able to cope with multiple impacts of the HIV/AIDS pandemic.

2.2 Social Impacts

High infection rate and growing number of illnesses and death among citizens characterize the current status of HIV/AIDS epidemic. This has a corresponding social impact on the social welfare of the family and the society as a whole. This paper analyzes the social impact by looking on the HIV/AIDS impact on social networks, orphans and the aspect of discrimination and stigmatization.

2.2.1 AIDS and Social Networks

In many Sub-Saharan families and many other parts of the world, individuals have taken much of their identity and their expectations of support from their immediate family and, ultimately from their much more extended kin group, sometimes called lineage. In the early days of the HIV/AIDS epidemic, it was expected that these social units would cope with the burden of orphaning. However, this has turned out to be only partially the case, as numbers of orphans has exceeded the custodians' ability to cope.

A study by ESRF, 2002 on the social and economic impact of HIV/AIDS on education sector using Mbeya Urban as a case study reveals that a good number of AIDS orphans (60 percent) depended on grandparents for their day-to-day basic needs. The findings also showed that 50 percent of grandparents were taking care of between 1 and 2 orphans. The other 50 percent

were taking care of 2 to 6 orphans. This may be explained by the fact that grandparents may have lost more than one child of their own and be caring for grandchildren from one or two of their own children. As a result of the pandemic the elderly are left without the support of their adult children and at the same time they have to support the grandchildren. Thus, HIV/AIDS disintegrate and destabilize the traditional support systems as younger people die. This becomes a cause of impoverishment for the elderly and the family they are supporting.

The pandemic has also destabilized other social functions in different societies. For instance, in several parts of Africa, funeral practices of long periods of mourning and lavish gatherings of relatives has become difficult to maintain and/or sustain. In Kagera Region, labor constraints have caused a shortening of the mourning practices (Tibaijuka, 1997).

2.2.2 AIDS and Orphans

Children in Sub-Saharan Africa are probably the most vulnerable group and suffer hard from the HIV/AIDS epidemic. Children may grow up in circumstances less than optimal for their development as limited resources may restrict the family's ability to provide sufficient care. Possible consequences are deterioration of the children situation in terms of education and nutrition.

It is projected that by the year 2010 there will be 4.2 million orphans in Tanzania (UNAIDS 2001b). Children who are affected by HIV/AIDS often find it difficult to attend school for various reasons. These include the inability of the family to pay school fees or the child has to stay home to care for an ill parent or help with household chores, agricultural and other income earning activities. Girls are the first to suffer as they are the most likely to be taken out of school to support the household. It is reported that children are increasingly seen as part of the labor force and expected to assist the parents from the age of 8-9 years.

The primary enrolment rate in communities that are hard hit by HIV/AIDS is decreasing. A recent report from South Africa shows that since 1998, enrolment in first grade has dropped to 60 percent and the decline is even more dramatic for girls, suggesting a growing gender imbalance (Isaksen et al., 2002). Studies from Uganda have shown that the chance of orphans going to school is halved and the orphans face increased risk of malnourishment (UNAIDS, 2000c). The younger the child is when orphaned, the less is the possibility of providing sufficient care to ensure the child's development. A study from Kagera region showed that half of the orphans did lack the most basic necessities (Tibaijuka, 1997).

According to the NORAD study (2002) in Tanzania, the vast majority of orphans depended on themselves or on their grandparents, though there are many other caregivers, including

close relatives and foster families. However, there are orphans (45 percent) living without a parent or a guardian - the situation that suggest high incidence of abandonment or surviving parent inability to take care for his or her children. As a result, orphans are denied supply of immediate and future needs, such as housing, food and education. Consequently, they are forced to seek help in the streets, begging for money which make them become vulnerable to abuse. The girls turn into prostitution to survive, and most likely become infected just like their parents thus perpetuating the vicious cycle.

It is reported that over 40 percent of children in rural East Africa have lost parents by age 15 to AIDS. Zambia has been shown to have the highest proportion of orphaned children with 23 percent of the children under age 15 missing one or both parents. As a result, over 90,000 children are living in the streets of Lusaka as compared to 35,000 1991 (Okonmah, 2002).

2.2.3 Discrimination and Stigmatisation

Increasingly, people living with HIV/AIDS and AIDS orphans have been discriminated and stigmatized in the household and workplaces/schools, and in the community. A study by ESRF (2002) reveals prevalence of mistreatment and stigmatization on HIV/AIDS orphans at household levels. Approximately 44 percent of orphan students interviewed experienced some mistreatment at their households. The most common ways of mistreatment include teasing (made fun of by other children in the neighborhood), and working for longer time in the household. Furthermore, due to stigma associated with the disease and lack of knowledge, the pandemic was found to have direct impact on social relations of the PLWHA within family members, close friends, relatives and co-workers.

The loss of colleagues at workplaces, increased workloads, potential discrimination, and general uncertainty about HIV/AIDS and the fear of infection may undermine morale. There have been instances of workplaces disruption where workers refuse to work with a colleague known or believed to be HIV positive (USAID, 2001 cited in Isaksen et al., 2002).

2.3 HIV/AIDS and Poverty

The effect of general poverty paired with high rate of HIV infection is dramatic as the epidemic strikes an already very vulnerable segment of the population. The epidemic will tend to worsen poverty and increase inequality because the low-income households are more adversely affected by an AIDS death than are other households. Reduction of the impact of HIV/AIDS disease in Tanzania is identified by the Poverty Reduction Strategy (PRSP) as one of the strategies to reduce the level of poverty (PRSP, 2000). Households that are affected by HIV/AIDS are more likely to experience a catastrophic fall of their income, while

those that are not affected could, at the same time, have a raise in their income. This situation would have a major implication on poverty alleviation and the welfare of the population.

Poverty is associated with weak endowments of human and financial resources, such as low levels of education associated with low levels of literacy and marketable skills, inadequate housing, generally poor health status, absence of assets, insufficient command over commodities (low income), low social status and dignity. Consequently, the poor face double jeopardy, as they are already vulnerable and HIV/AIDS adds to the deprivation. The household is caught in a bind of needing more resources at the time when the production capacity of the household is reduced. While richer households may be able to meet the increased expenditure on medical costs and reduced labor income, poorer households may apply other strategies that may exacerbate the situation, for instance women may engage in unsafe sex work.

There is evidence that HIV/AIDS has pushed some non-poor households to absolute poverty, especially when the breadwinner dies and the laws and regulations do not exist or operate in favor of the survivors (Barnett et al., 2000). A study conducted in Gwanda community in Uganda reveals that HIV/AIDS has diminished the families' food consumption, nutrition, and well-being. In the mid 1980s Gwanda was a relatively wealthy community but today, largely due to HIV/AIDS, 45 percent of the people living in that community are poor.

Poverty and HIV/AIDS are therefore interdependent with double causation meaning while poverty is an important factor in spreading the deadly virus, HIV/AIDS also causes and/or intensifies the spread of poverty.

3.0 MULTI-SECTORAL APPROACHES AND RESPONSES TO THE PANDEMIC

During the last sixteen years, Tanzania has undertaken many different approaches in attempting to slow the spread of HIV infection and minimize its impact on individuals, families and the society in general. Since 1983, when the first 3 AIDS cases in Tanzania were reported, the HIV epidemic has progressed differently in various population groups while national response has developed itself into phases of program activities. In 1985 a National AIDS Control Program (NAPC) was created in the Ministry of Health (MOH) with the support of the Global Program on AIDS of World Health Organization (WHO). NAPC formulated the Short Term Plan (1985-86), and three 5 year Medium Term Plans (MTP); MTP-1 (1987-1991), MTP-11 (1992-1996) and MTP-111 (1998-2002). The National AIDS Committee and the National Advisory Board on AIDS were formed in 1989 and 1999 respectively to support/complement the NAPC efforts.

Initially HIV/AIDS was perceived purely as health problem and campaign to deal with it involved the health sector only through NAPC. The national response consisted on developing strategies to prevent, control and mitigate the impact of HIV/AIDS epidemic, through health education and community participation. However, HIV/AIDS has moved from being a health sector problem to a wider development problems having profound impact on PLWHA, households, and different sectors of the economy.

Recognizing that, the government of Tanzania declared HIV/AIDS a National crisis and is now one of the top priority development agenda in the government, along with poverty alleviation initiatives. As mentioned earlier, PRSP incorporates the issue of HIV/AIDS as one of its priority areas under the crosscutting issues. The Tanzania HIV policy deems HIV/AIDS a national disaster (URT, 2001). It is a national crisis offering a compelling reason for a multi-sectoral approach. Multi-sectoralism means effectively inviting non-health government official to join HIV/AIDS program committees and/or giving different ministries responsibility for providing HIV/AIDS services to their employees. Multi-sectoralism can be more effective when it encourages other organizations to adapt their core practices to support government HIV/AIDS prevention and care programs.

On its own, ministry of health lack the resources to cope with the growing demands of the prevention of HIV transmission and care for PLWHA. Individual and community vulnerability to HIV/AIDS is partly a function of their economic, political, legal and social resources. There is, therefore, a clear consensus that effective HIV/AIDS interventions require the collaboration of a range of stakeholders, including government agencies, NGOs, civil society organization and businesses. Harnessing other sectors would not only increase

the resources available to respond to HIV/AIDS, but would also encourage new and more broad-ranging approaches.

The Tanzania Commission for AIDS (TACAIDS) has been established under the Prime Ministers Office to provide leadership and coordination of multi-sectoral responses. It has formulated the National Multi-Sectoral Strategic Framework (NMSF) on HIV/AIDS (2003-2007) which is now in place. NMSF will translate the National Policy of HIV/AIDS by providing strategic guidance to the planning of program, projects and interventions by various stakeholders in the fight against HIV/AIDS. It spells out the basic approaches and principles, which guide the National response, and identifies goals, objectives and strategies for the period 2003-2007. The NMSF will guide all future program and interventions by different stakeholders. It also contains a Monitoring and Evaluation system to measure progress towards the goals as well as institutional coordination and financial frameworks of the National response.

TACAIDS could also act as a coordinator in designing a workplace specific plan for designating focal point persons, developing a HIV/AIDS information desk in the ministry, and establishing counseling and home-based care activities. It could also coordinate multi-sectoral fundraising as part of community outreach and support programs. In South Africa, for instance, the HIV/AIDS policy of the government communication and information system is distinctive in its commitment to organize annual AIDS fund raising activities “in aid of hospice care of people in the terminal stages of AIDS” (SADC, 2002).

Promotion of research on multi-sectoral social and economic impacts of the pandemic is crucial. Contrary to other Sub-Saharan African countries, empirical data on social and economic impacts of the pandemic in Tanzania are scanty. Anecdotal evidence suggests that all sectors of the economy have been affected. Furthermore, there are no studies that have examined the link between household, and sectoral impacts with macro impact in Tanzania. Household studies of the impact of HIV/AIDS could serve to amplify, supplement and possibly modify some of the sectoral impact studies.

Studies to link HIV/AIDS with poverty are also imperative. At a household level there is a need to characterize HIV/AIDS and household poverty. Also, in order to understand the relationship between HIV/AIDS and livelihood, the dynamics of income distribution and poverty in the local communities and their social capital, and the linear or non-linear relationship between HIV and poverty have to be investigated in Tanzania.

4.0 CONCLUSIONS

The development of HIV/AIDS epidemic will have in the near future, its clear impact on all sectors of development through not only pressure on AIDS cases, care and management of resources, but also through depletion of economically active population - especially young women and men.

Given the fatality of the illness, the HIV/AIDS epidemic can no longer be viewed as just a health problem, it has to be recognized as a development problem. The impact of the epidemic is serious given its widespread - it is now the major cause of adult mortality in many parts of Tanzania. There has been an increase of TB and TB deaths due to the epidemic.

The health impacts of the disease alone are enough cause for concern, but additional reasons exist for concern: widespread poverty and unequal distribution of income that typify underdevelopment appear to stimulate the spread of HIV; labour migration, rapid urbanization, and cultural modernization that often accompany growth also facilitate the spread of HIV at the household level, AIDS deaths. Exacerbate the poverty and inequality that are conducive to a larger epidemic, thus creating a vicious circle.

The epidemic has had an impact across sectors with the most visible being health, education, social welfare, agriculture, and industry.

The Government of Tanzania has responded by forming different organs/institutions to deal with the pandemic and by developing a comprehensive national HIV/AIDS policy. Currently there is a strong political commitment and leadership from the highest level, aimed at fighting the HIV/AIDS pandemic. HIV/AIDS is now a top priority in the development agenda of the Government. However, there is a need to replicate this high political commitment at the district and community level. While PRSP incorporates issues related to HIV/AIDS, it fails to provide the general development policy framework for dealing respectively with the impact and challenges of the epidemic. Therefore, there is a need of reviewing the PRSP to include broader set of core strategies addressing HIV/AIDS concerns. There is also a need of linking more closely and fully the monitoring and evaluation of HIV/AIDS with monitoring and evaluation system established for the poverty reduction program.

The government should make sure that the National policy on HIV/AIDS is disseminated widely, enforced and clearly understood by the public. Thus, a national policy sets a framework within which sector policies can be developed. Government should also facilitate promotion of information sharing among countries on the various approaches to organizing

and implementing a multi-sectoral response and on the success and failures of such responses.

The adverse impact of the disease on development calls for widening the response outside of the health sector and supplementing the health interventions that address the social economic determinants and consequences of AIDS. Therefore HIV/AIDS needs to be featured in the context of other cross-sectoral topics such as poverty reduction, gender youth, population and other issues. With the negative consequences of AIDS on the labour force, the challenge is to design policy initiatives that will restore productivity and maintain the stock of human capital in order to achieve economic growth

HIV/AIDS is a multisectoral problem both in terms of its causes as well as its solutions. Therefore to get rid of the problem it requires a multisectoral approach/programme that address all fronts and involves all the social economic agencies. The obvious actors are the Government (Central and Local), the Private Sector, the Civil Society including Non Governmental Organizations (NGOs), Communities and Households.

5.0 REFERENCES

Barnett, T., A. Whiteside and C. Desmond. (2001). "The Social and Economic Impact of HIV/AIDS in Poor Countries: A Review of Studies and Lessons." *Progress in Development Studies* 1 (2): 151-170.

BBC News. (2002). "Mining Firm Reveals Cost of HIV." <http://www.aegis.com/news/bbc/2002/Bb020409.html> (accessed on 19th June 2002).

Boerma, T. and J. Bennet. (1997). "Costs of District AIDS Programs" In: J. Ng'weshemi, T. Boerma, J. Bennet, and D. Schapink (eds) *HIV Prevention and AIDS Care in Africa: A District Level Approach*. Amsterdam: Royal Tropical Institute.

Bonnel, R. (2000). "HIV/AIDS and Economic Growth: A Global Perspective." *The South African Journal of Economics* 68 (5): 820-853.

Cuddington J. T. (1993), "Modeling the Macroeconomic Effects of AIDS with an Application to Tanzania." *World Bank Economic Review* 7: 173-189.

Cuddington, J. T and J.D. Hancock. (1994). "Assessing the Impact of AIDS on the Growth Path of the Malawian Economy." *Journal of Development Economics* 43: 363-368.

Drysdale, S. (2000). *AIDS Briefs for Sectoral Planners and Managers: Health Sector, Health Economics, and HIV/AIDS Research Division (HEARD)*, University of Natal, Durban.

Dixon, S., S. McDonald and J. Roberts. (2001). "HIV/AIDS and Development in Africa." *Journal of International Development* 13: 381-389.

Dixon, S., S. McDonald and J. Roberts. (2002). "The Impact of HIV and AIDS on Africa's Economic Development." *British Medical Journal* 324 (7331): 232-234. Available also at <http://bmj.com/cgi/content/full/324/7331/232>.

ESRF. 2002. "Social and Economic Impacts of HIV/AIDS in Tanzania." Preliminary Results for Mbeya Urban District Presented to SIDA on 22nd November 2002.

Floyd, K., Reid, A., Wilkinson, D. and Gilks, G. (2000). "The Economic Impact of the HIV/AIDS Epidemic on the Health Sector in Rural South Africa. Paper Presented at the 13th International AIDS Conference, Durban.

Gillespie, S., L. Haddad, and R. Jackson. (2001). "HIV/AIDS, Food and Nutrition Security: Impacts and Actions." In: *Nutrition and HIV/AIDS, Nutrition Policy Paper* No. 20. ACC/SCN: Geneva.

Gillespie, S and L. Haddad. (2002). "Food Security as a Response to AIDS." In: *AIDS and Food Security*. International Food Policy Research Institute (IFPRI). Washington D.C.: IFPRI.

InteliHealth. (2002). "Health News." <http://www.intelihealth.com> (accesses on 19th June 2002).

Isaksen, J., N. G. Songstad and A. Spisoy. 2002. "Socio-economic effects of HIV/AIDS in African Countries." Report Submitted to Chr. Michelsen Institute, Bergen, Norway. Also available at www.cmi.no/public/pub2002.

Kambou, G., S. Devarajan, and M. Over. (1992). "The Economic Impact of AIDS in an African Country: Simulations with a Computable General Equilibrium Model of Cameroon." *Journal of African Economies* 1(1):109-130.

Leighton, C. (1996). "The Direct and Indirect Costs of HIV/AIDS." In: *AIDS in Kenya: Socioeconomic Impact and Policy Implications*, Eds. Forsythe, S., B. Rau, N. Alrutz, E. Gold, J. Hayman and L. Lux. Family Health International/AIDSCAP.

Lundberg, M., M. Over, P. Mujinja. (2000). "Sources of Financial Assistance for Households Suffering an Adult Death in Kagera, Tanzania." *The South African Journal of Economics* 68 (5): 947-84

Michiels, S. I. (2001). "Strategic Approaches to HIV Prevention and AIDS Mitigation in Rural Communities and Households in Sub-Saharan Africa." Sustainable Development Department (SD), Food and Agriculture of the United Nations. Rome: FAO. Available at http://www.fao.org/sd/2001/KN0402a_en.htm.

Mphale, M. (2002). "Impacts of HIV/AIDS on Land Tenure: The Case of Lesotho.

Mujinja, P. (1999). "The Socio-economic Impact of HIV/AIDS in Tanzania." *Tanzania Quarterly Economic Review* 2 (1).

Mujinja, P. (2002). "HIV/AIDS Workplace Interventions in Tanzania: An Evaluation of Impact of HIV and Sustainability Interventions at Workplaces." A Consultancy Report Submitted to Futures Group International, Washington, D.C. USA.

NACP. (2000). "National AIDS Surveillance Report." Dar es Salaam: NACP.

NORAD. (2002). "Children Neglected HIV/AIDS Orphans Study: Identification And Needs Assessment. Report to NORAD by Eastern and Southern African Universities Research Program (ESAURP).

Okonmah, A. (2002). "Social and Economic Impact of HIV/AIDS in Africa." <http://democracy-africa.org/hiv aids/htm> (accessed on 19th June 2002).

Over, M (1992). *The Macroeconomic Impact of HIV/AIDS in Sub-Saharan Africa*. Technical Working paper no. 3 African Technical Department, Population, Health and Nutrition Division. Washington, D.C. World Bank.

Over, M., M. Ainsworth, P. Mujinja, I. Semali, G. Lwihula, G. Koda, and K. Beegle. (1996). "Coping with AIDS: Summary of the Research Results of the Economic Impact of Adult Mortality from AIDS and Other Causes on Households in Kagera, Tanzania. Manuscript Prepared for a Discussion at a Workshop in Bukoba, Tanzania. Washington D.C: World Bank.

Rugalema, G. (1999). *Adult Mortality as an Entitlement Failure*, Tanzania. Published PhD Thesis. The Hague: Institute of Social Studies (ISS).

SADC. (2002). "National and Sector HIV/AIDS Policies in the Member States of the Southern Africa Development Community." A Report Prepared for the SADC/HSC by the Policy Project.

Tibaijuka, A. K. (1997). AIDS and Economic Welfare in Peasant Agriculture: Case Studies from Kagabiro Village, Kagera Region, Tanzania." *World Development* 25:963-975.

UNAIDS. (2000a). "Guidelines for Studies of the Social and Economic Impact of HIV/AIDS." Geneva: UNAIDS.

UNAIDS. (2000b). "Report on the Global HIV/AIDS Epidemic--June 2000." Geneva: UNAIDS.

UNAIDS. (2000c). “AIDS in Africa: Country by Country (ADF Profile Book).” Geneva: UNAIDS.

UNAIDS. (2001a). AIDS Epidemic Update-December 2001.
www.unaids.org/epidemic_update/report_dec01/index.html (accessed on 13 November, 2002).

UNAIDS. (2001b). “Investing in Our Future: Psychosocial Support for Children Affected by HIV/AIDS - A Case Study in Zimbabwe and the United Republic of Tanzania.” Geneva: UNAIDS.

UNAIDS. (2002). “AIDS Epidemic Update—December 2002.”
www.unaids.org/worldaidsday/2002/press/update/epiupdate2002_en.doc (accessed on 11th December 2002).

URT. (2000). “Poverty Reduction Strategy Paper (PRSP). Dar es Salaam: Government Printers.

URT. (2000). “Public Expenditure Review.” Government of Tanzania and the World Bank: Dar es Salaam and Washington D.C.

URT. (2001). “National HIV/AIDS Policy.” Dar es Salaam: Prime Minister’s Office.

World Bank. (1993). “The Macroeconomic Effects of AIDS.” *Development Brief* Number 17. Washington D. C.: World Bank.

World Bank. 2000. “Lesotho: The Development Impact of HIV/AIDS: Selected Issues and Options.” Report Number 21103-LSO. Macroeconomic Technical Group, Africa Region. Washington D.C.: World Bank.

World Bank. (2001). “Namibia: Selected Development Impact of HIV/AIDS.” Report Number 22046-NAM. Macroeconomic Technical Group, Africa Region. Washington D.C.: World Bank.

World Bank. (2001). “Swaziland: Selected Development Impact of HIV/AIDS.” Report Number 22044-SW. Macroeconomic Technical Group, Africa Region. Washington D.C.: World Bank.