The Impact of HIV/AIDS on Rural Households and Land Issues in Southern and Eastern Africa

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1. Introduction

Human Immunodeficiency Virus (HIV)/Acquired Immune Deficiency Syndrome (AIDS) is a massive development challenge of global proportions facing human societies. The impact of the HIV/AIDS epidemic on both national development and household economies has compounded a whole range of challenges surrounding poverty and inequality. Louwenson and Whiteside have summarised the devastating implications of HIV/AIDS for poverty reduction in a paper prepared for the United Nations Development Programme (UNDP):

> "The devastation caused by HIV/AIDS is unique because it is depriving families, communities and entire nations of their young and most productive people. The epidemic is deepening poverty, reversing human development achievements, worsening gender inequalities, eroding the ability of governments to maintain essential services, reducing labour productivity and supply, and putting a brake on economic growth. The worsening conditions in turn make people and households even more at risk of, or vulnerable to, the epidemic, and sabotages global and national efforts to improve access to treatment and care. This cycle must be broken to ensure a sustainable solution to the HIV/AIDS crisis" (2001: 4).

Although intensifying responses to the epidemic have focused on prevention and care, these have tended to ignore the broader picture of the implications for development and poverty reduction (Collins and Rau, 2001; Louwenson and Whiteside, 2001). Discussions amongst development practitioners and policy makers have therefore been limited and numbers of policies and goals, including the United Nations Millennium Declaration Goals, have failed to take into account the added challenges resulting from sharp increases in AIDS related mortality rates.

At national and local levels, new social science research, closely linked with the needs of policy makers and advocates, is urgently required on the progress of the epidemic in specific circumstances. The mitigation of the impact of the epidemic on social and economic developments by intensifying national poverty reduction efforts and providing support for those particularly affected requires detailed understanding to be effective. It is therefore increasingly important to know who is affected, why and how; and to devise ways to lessen the vulnerability of particular groups. Although significant efforts have been made to document the social and economic impact of HIV/AIDS in some regions and communities, as clearly illustrated by the depth of information available in this paper, an enormous amount remains to be done.

2. Objectives

This background paper intends to highlight key issues surrounding the impact of HIV/AIDS on land particularly at the rural household level in Southern and Eastern Africa. It also serves as an introduction to three country reports commissioned by the Sub-Regional Office for Southern and Eastern Africa of the Food and Agricultural Organization of the United Nations (FAO) on the impact of the epidemic on land issues. These studies are focused on Kenya, Lesotho and South Africa. The conceptual framework is intended to provide a general understanding of the epidemic particularly in terms of its impact on rural households and their economies, and ultimately on issues surrounding land. The broad, holistic approach is

necessary to conceptualise the intricacies of how HIV/AIDS has affected land in the three countries.

Despite the immense impact of the epidemic on land issues, HIV/AIDS is often under-emphasised or even disregarded in land policies across Southern and Eastern Africa. At a recent conference organised by the Southern African Regional Poverty Network (SARPN)[1], it was evident that HIV/AIDS had not been factored in as a major issue in a range of Southern African countries' land policies. Indeed, the conference report concluded that 'HIV/AIDS and its impact on land reform is a neglected area in all Southern Africa Development Community (SADC) countries…[as] there is often an inadequate conceptualisation of the impact of the epidemic on the land reform process (for example on the implementing agencies and on the beneficiaries) as well as on an integrated strategy that links land reform objectives with the impact of HIV/AIDS' (Drimie and Mbaya, 2001). Although some policies, such as that of South Africa, attempted to raise the issue, very little has been done in practice to integrate or conceptualise the impact in any real way.

This paper is therefore intended to provide a basis for pragmatic recommendations around the issue of land and HIV/AIDS. The paper largely takes the form of a broad overview of the socio-economic impact of HIV/AIDS as identified in the current literature. From this a more focused discussion on land and rural households is developed to provide a background to the three country studies. The paper is organised as follows:

- The impact of HIV/AIDS on Sub-Saharan Africa;
- The underlying causes of HIV/AIDS;
- The economic impact of HIV/AIDS;
- The impact on the household livelihood strategies;
- Conceptual framework and introduction to country studies.

3. The Impact of HIV/AIDS on Sub-Saharan Africa

The impact of HIV/AIDS on the African region is clearly depicted in the table below which indicates the highest prevalence rate of the epidemic in the world according to the UNAIDS *Report on the Global HIV/AIDS Epidemic* (2000). Most of these countries are reflected in the map on the following page, drawing attention to the profound impact on the African continent. Particular attention is drawn to the countries that are the subject of this study.

As clearly articulated by Table One, countries worst affected by HIV/AIDS in the global context are predominantly African. This is a region that can least afford the direct and indirect costs associated with the epidemic as it is characterised by illiteracy, poverty and lack of access to housing, health care and nutrition. Altogether, at the end of 1999, there were 16 countries, all in Sub-Saharan Africa, in which more than one-tenth of the adult population aged 15 – 49 years were infected with HIV (Schonteich, 2001). Of these countries, Lesotho, South Africa and Kenya were the fourth, sixth and ninth worst affected in the world respectively. The ranking of the countries according to prevalence of HIV shows that the

[1] In keeping with the goals of SARPN, the conference was designed to facilitate the sharing of perspectives on land issues in several Southern African countries and to generate debate about how pro-poor policy processes may be incorporated into land reform policy options in the region. During the conference the issues surrounding the impact of HIV/AIDS on land reform received significant interest partly as a response to the perceived dearth of information and policy research on the issue. See the SARPN website at http://www.sarpn.org.za

eight highest rates of infection are in the SADC region, including South Africa and Lesotho, which carries the major burden of HIV/AIDS in both the Sub-Saharan Africa region and also in the world. Six countries in East Africa, starting with Kenya, and then five other countries, only one outside of Africa, follow these:

TABLE ONE: Countries worst affected by HIV/AIDS

HIV/AIDS estimates in countries with HIV prevalence rates > 4% of adult population, end 1999				
Country	**Adult Rate (%)**	**Adults & Children**	**Adults (15–49)**	**Orphans cumulative**
1. Botswana	35.80	290,000	280,000	66,000
2. Swaziland	25.25	130,000	120,000	12,000
3. Zimbabwe	25.06	1,500,000	1,400,000	900,000
4. **Lesotho**	**23.57**	**240,000**	**240,000**	**35,000**
5. Zambia	19.95	870,000	830,000	650,000
6. **South Africa**	**19.94**	**4,200,000**	**4,100,000**	**420,000**
7. Namibia	19.54	160,000	150,000	67,000
8. Malawi	15.96	800,000	760,000	390,000
9. **Kenya**	**13.95**	**2,100,000**	**2,000,000**	**730,000**
10. Cen African Rep	13.84	240,000	230,000	99,000
11. Mozambique	13.22	1,200,000	1,100,000	310,000
12. Dijbouti	11.75	37,000	35,000	7,200
13. Burundi	11.32	360,000	340,000	230,000
14. Rwanda	11.21	400,000	370,000	270,000
15. Cote d'Ivoire	10.76	760,000	730,000	420,000
16. Ethiopia	10.63	3,000,000	2,900,000	1,200,000
17. Uganda	8.30	820,000	770,000	1,700,000
18. Rep. Tanzania	8.09	1,300,000	1,200,000	1,100,000
19. Cameroon	7.73	540,000	520,000	270,000
20. Burkina Faso	6.44	350,000	330,000	320,000
21. Congo	6.43	86,000	82,000	53,000
22. Togo	5.98	130,000	120,000	95,000
23. Haiti	5.17	210,000	200,000	74,000
24. DRC	5.07	1,100,000	1,100,000	680,000
25. Nigeria	5.06	2,700,000	2,600,000	1,400,000
26. Gabon	4.16	23,000	22,000	8,600
27. Bahamas	4.13	6,900	6,800	970
28. Cambodia	4.04	220,000	210,000	13,000

Source: UNAIDS cited in Louwenson & Whiteside, 2001

Africa

Legend

- Country Boundaries
- Kenya
- Lesotho
- South Africa

KM

0 500 1000 1500

HSRC GIS Centre

Produced by: GIS Centre

The main consequence of the impact of HIV/AIDS in these affected countries is the reversal of the social and economic progress made during the last few decades, coupled with the serious negative impact both on households and organisations focused on development interventions. This is because infection with HIV will certainly result in AIDS-related death, whether soon after infection or several years later. This ensures that the epidemic will have an impact on the demographic structure of countries and communities (Haacker, 2002). AIDS-related mortality is leading to plummeting life expectancy and climbing infant and child mortality rates, with life expectancy at birth falling to less than 1950's levels in highly affected countries. The demographic consequences of HIV/AIDS are clearly depicted in the table below:

TABLE TWO: **Life expectancy & population growth, 2010**

	-------- Life expectancy --------			-----Population growth-----	
Country	Without HIV/AIDS	With AIDS	Years lost	Without AIDS	With AIDS
Namibia	70.1	38.9	31.2	2.8%	1.2%
Botswana	66.3	37.8	28.5	1.9%	0.2%
Swaziland	63.2	37.1	26.1	3.1%	1.7%
Zambia	60.1	37.8	22.3	3.1%	2.0%
Kenya	**69.2**	**43.7**	**25.5**	**1.8%**	**0.6%**
Malawi	56.8	34.8	22.0	2.2%	0.7%
South Africa	**68.2**	**48.0**	**20.2**	**1.4%**	**0.4%**

Source: Fourie and Schonteich, 2001: 31

HIV/AIDS especially affects mortality rates for the working age population and, due to mother-to-child transmission, child mortality (Haacker, 2002: 5). HIV/AIDS illnesses and deaths affect people in their most productive years – those between 15 and 49 years of age (FAO, 1994). Up to 60 percent of all new HIV infections are among 15 to 24 year olds, with female members of the population outnumbering the male members by a ratio of two-to-one in that population group (Balyamujura *et al*, 2000: 9). In Sub-Saharan Africa, 55 percent of the infections occur among women (Collins and Rau, 2000: 1), the only region in the world where female infection rates are higher than among men (Walker, 2002: 7).

Increased deaths, fewer births and reduced fertility will slow or potentially reverse population growth particularly in southern Africa (Collins and Rau, 2001: 1; Louwenson and Whiteside, 2001: 7). As a result of HIV/AIDS, Sub-Saharan Africa will have 71 million fewer people by 2010 and the increase in widows, widowers and orphans will expand dependency.

4. Underlying causes of HIV/AIDS

According to the Southern African Migration Project (SAMP), the reasons why the highest rates of infection in the world occur in Southern Africa and other African regions are unclear. Although the countries of the SADC region have much in common, their histories over the last twenty years have been very different (Williams *et al*, 2002). 'Botswana, with the highest rate of infection, has experienced stable, democratic government and a strong economy since independence in 1966. Mozambique, with the lowest rate of infection, experienced sixteen years of devastating civil war from which it only emerged in 1992. While South Africa and Botswana are the two richest countries in Sub-Saharan Africa (as measured in per capita gross domestic product), Mozambique is the poorest' (Williams *et al*, 2002). A number of different factors have been advanced to explain the rapid spread, high prevalence and uneven

distribution of HIV/AIDS in Sub-Saharan Africa. They include poverty and economic marginalisation, poor nutrition, opportunistic infection, migration, sexual networking and patterns of sexual contact, armed conflict, and gender inequality. Some of these will be discussed in more detail below.

4.1 HIV/AIDS and Poverty

HIV/AIDS, like all communicable diseases, is linked to poverty. The complex relationship between poverty and HIV/AIDS is central to an understanding of the impact of the epidemic on rural livelihoods. The relationship is bi-directional in that poverty is a key factor in transmission and HIV/AIDS can impoverish people in such a way as to intensify the epidemic itself.

4.1.1 Poverty as a key transmission factor

Thus the relationship between poverty and HIV transmission is not simplistic (Collins and Rau, 2001). The debate on the role of poverty in driving the sexual transmission of HIV in Sub-Saharan Africa is widely acknowledged and accepted in the literature around HIV/AIDS (HSRC, 2001a: 41). Although there are some powerful critiques of the poverty-AIDS argument, which claim that many of the worst affected African countries such as Botswana, Zimbabwe and South Africa are among the most economically developed in the region, poverty does seem to be a crucial factor in the spread of HIV/AIDS. It should be emphasised that poor people infected with HIV are considerably more likely to become sick and die faster than the non-poor since they are likely to be malnourished, in poor health, and lacking in health attention and medications.

In effect, all factors, which predispose people to HIV infection, are aggravated by poverty, which "creates an environment of risk". According to Balyamujura *et al*, poverty relates to the spread of HIV in three interrelated ways (2000: 8):

1. Deep-rooted structural poverty, arising from such things as gender imbalance, land ownership inequality, ethnic and geographical isolation, and lack of access to services.

2. Developmental poverty, created by unregulated socio-economic and demographic changes such as rapid population growth, environmental degradation, rural-urban migration, community dislocation, slums and marginal agriculture.

3. Poverty created by war, civil unrest, social disruption and refugees[2]. High levels of rape and the breakdown of traditional sexual mores are associated with military destabilisation, refugee crisis and civil war (Walker, 2002: 7).

All three have severe effects on individuals' and communities' vulnerability to the spread of HIV, their ability to handle risks, and opportunity to participate in prevention and care activities[3]. The experience of HIV/AIDS by poor individuals, households and communities is likely to lead to an intensification of poverty, push some non-poor into poverty and some of

[2] Obbo has also drawn attention to the link between the spread of HIV/AIDS and social instability and conflict, such as was found in Uganda during the 1970s and 1980s (1995, cited in Walker 2002: 7).
[3] The latter is related to the relatively poor public health education and inadequate public health systems found in most Sub-Saharan African countries.

the very poor into destitution. In turn, poverty can accelerate the onset of HIV/AIDS and tends to exacerbate the impact of the epidemic.

4.1.2 The impact of HIV/AIDS on poverty

Thus, as a result of the effect on mortality, morbidity, life expectancy and population growth, HIV/AIDS is having a direct negative impact on poverty, especially as experienced by poor rural households. In the 2001 report on the Special Session of the General Assembly on HIV/AIDS, the United Nations Secretary-General warned that HIV/AIDS was reversing decades of development in the hardest-hit regions of the world:

> "It [HIV/AIDS] changes family composition and the way communities operate, affecting food security and destabilising traditional support systems. By eroding the knowledge base of society and weakening production sectors, it destroys social capital. By inhibiting public and private sector development and cutting across all sectors of society, it weakens national institutions. By eventually impairing economic growth, the epidemic has an impact on investment, trade and national security, *leading to still more widespread and extreme poverty"* (cited in Fourie and Schonteich, 2002: 32).

The most devastating consequences of HIV infection arise not simply because many people will die but because the deaths will occur mainly among adults between the ages of 25 and 45 years, the very people who work to support families and should be most productive economically (SAMP, 2002: 9). Therefore HIV/AIDS is changing the contours and dynamics of poverty through its demographic and socio-economic impacts, which may[4]:

- Create *inter-generational poverty* by impoverishing surviving orphans (often forcing them out of school, thus limiting their livelihood options), by fragmenting or dissolving households and by decimating the fragile asset base of the poor;
- Alter the age structure and *composition of the poor*, by decimating the young adult population while impoverishing an increasing number of children and elderly people;
- Result in *irreversible survival mechanisms* for the poorest as what is to some extent unique about HIV/AIDS is that the shock it inflicts is one from which many households are unable to recover. In particular, the erosion of the household asset base tends to be permanent;
- Intensify discrimination and *marginalisation* of poor people living with HIV/AIDS as well as their families. This is especially the case with women who are often perceived to be responsible for transmitting the HIV virus;
- Increase the prevalence of *poor female-headed households* (young widows with small children as well as elderly grandmothers looking after grandchildren) and thus the feminisation of poverty and agriculture;
- Exacerbate *unequal asset distribution* (land, livestock, labour) leading to landlessness and destocking. Once land and livestock are sold, the recovery potential of these households is severely diminished. Destitution is the culmination of this process of asset depletion; and
- Intensify poverty-driven *labour migration* as a coping strategy, thereby increasing the risk of HIV infection among the survivors.

[4] These have been adapted from IFAD, 2001.

As indicated by the last point, many of these strategies involve people migrating from their homes to other places, usually urban or rural centres, where they hope to find employment. For some women, the pressures of poverty may lead them to engage in sexual transactions in order to support themselves (Collins and Rau, 2001: 8). Therefore migration and commercial sex work are two activities closely associated with risk for HIV infection, two issues that require closer elaboration as they often form central options in the multiple livelihood strategies developed by rural households.

4.2. Regional Migration

Research in Africa has long demonstrated that the prevalence and patterns of spread of infectious disease are closely associated with patterns of human mobility (SAMP, 2002: 15). Thus the continuous movement of people is an underlying factor in the spread of HIV/AIDS. Numerous studies have established a clear link between elevated HIV seroprevalence and short duration of residence in a locality, settlement or travel along major transportation routes, immigrant status, and international travel to the region (Brockerhoff and Biddlecom, 1999). Large-scale economic migration has been a feature particularly of the southern African region (HSRC, 2001a: 4). Historically, men migrated from Lesotho, Botswana, Swaziland, Mozambique, Malawi, Zimbabwe and Zambia to South African gold, platinum and diamond mines to seek work. The close proximity of these countries, in particular that of South Africa's "enclosure" of Lesotho is indicated on the map of Africa presented earlier in this paper. The ease of movement of people has brought with it infections from other parts of the region to "destination" countries such as South Africa and conversely back to other countries. It is important to reiterate that these regional countries are some of the worst affected in the world.

Massive migration of young, unmarried adults from presumably "conservative" rural environments to more sexually permissive African cities in recent years has been regarded as partly responsible for the much higher infection levels observed in urban than in rural areas (Brockerhoff and Biddlecom, 1999). For example, in South Africa, many male migrants have been forced to separate from their families for long periods and live in overcrowded singe sex hostels. These hostels became sources of clients for sex workers seeking respite from poverty. This resulted in high-risk behaviour which increased the rates of sexually transmitted infections, including HIV, which spread rapidly back to the homes of the migrant workers.

Topouzis and du Guerney have noted that in a number of countries, the HIV/AIDS epidemic has resulted in a return to rural areas of community members who have been living and working in towns and cities (1999). Much documented evidence indicates that rural communities carry the cost of their migrants contracting HIV/AIDS both through the loss of income remitted by a worker who has fallen ill, and through the cost of supporting the family member if they return home once they are ill.

Economic integration in the region, particularly in SADC, has been facilitated by the transport of goods between countries. The vulnerability of truck drivers who frequent sex workers while transporting goods between countries has been well documented (SAMP, 2002: 29; Burayo, 1991). Truck drivers become major conduits of sexually transmitted infections and HIV (Marcus, 2001: 110).

4.3. Poverty-driven Commercial Sex Work

In the absence of alternative opportunities to earn a livelihood for themselves and their households, millions of people sell sex (Collins and Rau, 2001: 13). In discussing the poverty-driven selling of sex, some authors emphasise the importance of recognising that whilst millions engage in commercial sex work on a regular basis, even more people not commonly thought of as "commercial sex workers" find themselves needing to exchange sex for money or goods on an occasional basis (Collins and Rau, 2001: 14, Cohen, 1998: 6). Many mothers have been forced to turn to sexual transactions in order to obtain desperately needed money and in communities characterised by social inequalities, some older men with money procure sex from young females in exchange for gifts or spending money.

Sex work or sexual transactions that are poverty driven are likely to foster behaviours that are risk-taking, which encourages unprotected sex to be more prevalent. People whose livelihood strategies expose them to a high risk of infection are, precisely because they are impoverished, less likely to take seriously, or able to take seriously, the threat of an infection that is fatal in years from the present (Collins and Rau, 2001: 15). They are after all facing the reality of day-to-day survival for themselves and their households in the present.

The conceptualisation of the factors contributing to the spread of the epidemic and linking it to issues such as poverty, migrant labour, income inequalities, and gender relations are crucial to an understanding of HIV/AIDS and its impact on society and the household in particular. From this discussion it is clear that poverty increases vulnerability to HIV infection and poverty is compounded by HIV/AIDS. The latter is a result of the shocks, which result from HIV/AIDS-related deaths and infection that intensify the usual problems associated with severe poverty. This discussion has also indicated some of the options, such as commercial sex work, that affected households may be forced to adopt in the face of the epidemic and increasing levels of poverty. This indicates the need for a more focused discussion around the household and the multiple livelihood strategies that are constituted for survival in an increasingly difficult economic context.

5. The Economic Impact of HIV/AIDS

Du Guerney has argued that recent attempts to consider HIV/AIDS as a macro-economic question have been disappointing, as impacts only appear when specific sectors are considered (2001a: 3). The World Bank has argued that it is particularly difficult to assess the macro-economic impact of HIV/AIDS since many other factors affect economic performance (du Guerney, 2001a). Economies tend to react more dramatically to economic restructuring than to long, slow corrosions as those wrought by AIDS. However, it is clear that the epidemic has profound implications for economies in affected regions as primary wage earners and caretakers fall sick, require care, and eventually die, usually consisting of individuals of prime working age (Lewis, 2001: 59).

5.1 The impact on the Macro-Economy

The impact of HIV/AIDS on the macro economic environment takes two dimensions, namely the direct and indirect costs (Balyamujura *et al*, 2000: 14). The former refers to the cost of treatment associated with HIV related illness, which has serious implications for health care budgets around the region. Those segments of the population that are poverty-stricken stand

to lose the most as pressures on the health budgets increases resulting in higher medical costs. Indirect costs are more difficult to measure as the refer to loss of value of production, the loss of current wages, the loss of the present value of future earnings, training cost of new staff, high staff turn-over, cost of absenteeism, higher recruitment costs, the drainage of savings, amongst others.

In the South African context, at least two macroeconomic modelling exercises have been conducted seeking to illustrate the potential impact of HIV/AIDS on the South African economy (Aliber, 2001). In the one, ING Barings identified seven "key impact channels" that link the demographic effects of AIDS to the South African economy (2000):

1. A lower labour force;
2. Lower labour productivity through absenteeism and illness;
3. Cost pressures for companies through benefit payments and replacement costs;
4. Lower labour income, as employees bear some of the AIDS-related costs;
5. Lower population translating into lower expenditure;
6. Increased private sector demand for health services;
7. Higher government expenditure on health services.

The economic consequences of HIV suggests that that the sector that will be hardest hit will be mining, followed closely by transportation and storage, and that about 27 percent of current mine workers and 22 percent of all transport and storage workers will die of AIDS by 2005 (ING, 2000). Economic growth will be hit badly as the diversion of funds away from savings to pay for the costs of the illness decreases the country's investment potential (SAMP, 2002: 9). Arndt and Lewis' simulation study examines similar "channels" and arrives at similar conclusions. All of these "impacts" may result in changes in the broader economies in Southern and Eastern Africa as a direct result of the high prevalence rates in these countries.

Thus it is clear that HIV/AIDS will have a major adverse impact on Gross Domestic Product (GDP) of various countries. It is estimated that by 2010, the South African economy will be 22 percent smaller than it would have been without HIV/AIDS, amounting to a total of about US$17 billion (De Waal, 2001). This will have an important knock-on implication for the region as a whole as South Africa is the largest and most dynamic economy in the continent. It should be emphasised that the impact on human and social development will be much more profound than reflected in limited indicators such as GDP or per capita GDP. These impacts would be felt throughout the economy, from the macro-level to the household, particularly as wage opportunities become scarcer.

The impact of HIV/AIDS at the household level also negatively impacts on the macro-economic context. The repercussions of HIV/AIDS is felt most acutely at the household level, with the burden weighing most heavily on the poorest households, those with the fewest resources with which to cushion the economic impact (Barnett *et al*, 2001: 158). One study estimated that households experience a decline in income of between 48 percent and 78 percent when a household member dies from HIV/AIDS, excluding the costs of funerals (cited in Walker, 2002: 7). This burden readily translates into an overall cost on national development and the macro economies of individual countries, a situation aggravated by the fact that the portion of the population most affected by HIV/AIDS is the most economically active.

Ownership or access to rural land is a key part of many African families' well-being and livelihood. It is, however, only a small part in some contexts: small-scale agriculture in South – and southern – Africa has been shown over the past decade to have become impossible without inputs from labour migrant remittances (James, 2001: 93). However, with the decline of the mining and manufacturing industries in a number of southern and east African countries, particularly South Africa and Zimbabwe, significant changes in the rate and extent of labour migration have occurred and hence in the degree of success of such strategies. This indicates that rural livelihoods are complex and aimed at managing risk, reducing vulnerability and enhancing security and are therefore based upon environmental stability. It is therefore important to have a sense of both the role of land and the broader labour market and macro-economic environment, which often underpin the incomes within the rural economy and the diverse livelihood strategies. These all come under increasing pressure with the broad impact of HIV/AIDS.

5.2 The Impact on the Rural Economy

It is widely acknowledged within general development literature that the urban and rural economies are usually intrinsically interlinked and that incomes within the rural environment depend upon wages earned within the urban economic environment. Thus it is clear that the impact of HIV/AIDS on the formal, largely urban-based economies of Southern and Eastern Africa will increasingly have an impact in reducing the options and the cash flows between the two sectors.

Within Southern and Eastern African countries, HIV/AIDS has been acutely experienced in rural areas. A recent Fact Sheet prepared by the FAO (2000) clearly describes the threat to rural Africa:

- More than two-thirds of the population of the 25 most-affected African countries live in rural areas.
- Information and health services are less available in rural areas than in cities. Rural people are therefore less likely to know how to protect themselves from HIV and, if they fall ill, less likely to get care.
- Costs of HIV/AIDS are largely borne by rural communities as HIV-infected urban dwellers of rural origin often return to their communities when they fall ill.
- HIV/AIDS disproportionately affects the economic sectors such as agriculture, transportation and mining that have large numbers of mobile or migratory workers.

As discussed above, the extensive labour migration between and within countries, associated with annual or more frequent visits home, has facilitated the spread of HIV/AIDS to the most remote rural areas (Topouzis, 1999). The prevalence of HIV/AIDS in rural areas is not adequately documented due to poor health infrastructure, restricted access to health facilities and inadequate surveillance (HSRC, 2001a; Topouzis, 1999). This emphasises the fact that rural communities have fewer resources to prevent infection and to nurse ill people (Loewenson and Whiteside, 2001: 12). Access to treatment and other services, as well as education, are often limited in such contexts.

According to Sehgal, the effects of HIV/AIDS within a rural economy may include (1999):

- Redistribution of scarce resources with an increasing demand for expenditure on health and social services;

- A collapse of the educational system due to high morbidity and mortality rates amongst educator and learners;
- Younger and less experienced workers replacing older AIDS related casualties, causing reduction in productivity;
- Employers becoming more likely to face increased labour costs because of low productivity, absenteeism, sick leave and other benefits (attending funerals), early retirement and additional training costs.

Agricultural production is often central to the rural economy. This form of production is usefully differentiated into the commercial farming sector, where the organisation and running of a farm often approximates a business, and the subsistence sector, which is characterised by a close relationship between the general activities of a household (including child care and rearing, support relations between adult members, home maintenance and food processing) and the production of crops and care of animals (Barnett, 1999). These sectors will be further elaborated below.

5.3 The Impact on Agricultural Production

Agriculture is one of the most important sectors in many developing countries, providing a living or survival mechanism for up to 80 percent of a country's population. However, while agriculture is extremely important to many African countries, not least of all for household survival, there are marked differences among countries in terms of current economic conditions and agricultural and economic potential (Walker, 2002: 5). Agriculture faces major challenges including unfavourable international terms of trade, mounting population pressure on land, and environmental degradation. The additional impact of HIV/AIDS is also severe in many countries. The major impact on agriculture includes serious depletion of human resources, diversions of capital from agriculture, loss of farm and non-farm income and other psycho-social impacts that affect productivity (Mutangadura, Jackson and Mukurazita, 1999).

The adverse effects of HIV/AIDS on the agricultural sector can, however, be largely invisible as what distinguishes the impact from that on other sectors is that it can be subtle enough so as to be undetectable (Topouzis, 2000). In the words of Rugalema, "even if [rural] families are selling cows to pay hospital bills, [one] will hardly see tens of thousands of cows being auctioned at the market…Unlike famine situations, buying and selling of assets in the case of AIDS is very subtle, done within villages or even among relatives, and the volume is small" (cited in Topouzis, 2000). Furthermore, the impact of HIV/AIDS on agriculture, both commercial and subsistence, are often difficult to distinguish from factors such as drought, civil war, and other shocks and crises (Topouzis, 2000). For these reasons, the developmental effect of HIV/AIDS on agriculture continues to be absent from the policy and programme agendas of many African countries. Many studies on HIV/AIDS that have focused on specific sectors of the economy such as agriculture have been limited to showing the wide variety of impacts and their intensity on issues such as cropping patterns, yields, nutrition, or on specific populations. They have not adequately touched on questions such as the effects of changes in prices of commodities, such as tea or cocoa, land tenure and the rights of women and children (du Guerney, 2001a: 4).

5.3.1 Impact on the Commercial Sector

Commercial agriculture is particularly susceptible to the epidemic and is facing a severe social and economic crisis in some locations due to its impact. Morbidity and mortality due to

HIV/AIDS significantly raise the industry's direct costs (medical and funeral expenses) as well as indirectly through the loss of valuable skills and experience (FAO, 1999). The epidemic thus adversely affects companies' efficiency and productivity. Thus HIV/AIDS is leading to falling labour quality and supply, more frequent and longer periods of absenteeism, losses in skills and experience, resulting in shifts towards a younger, less experienced workforce and subsequent production losses (Louwenson and Whiteside, 2001: 9). These impacts intensify existing skills shortages and increase costs of training and benefits.

At the recent FAO Conference on HIV/AIDS and agriculture, an example was given of the costs to this particular sector. It was argued that in Sub-Saharan Africa's 25 worst affected countries, seven million agricultural workers have died from the epidemic since 1985 and sixteen million more may die by 2020 (Brough, 2001; FAO, 2000). Table three clearly depicts the grim picture of the agricultural labour force decreases in the ten most heavily affected countries in Africa (Fourie and Schonteich, 2001: 31). Balyamujura *et al*, have argued that intensive agriculture will be severely impacted through the loss of this specialised labour (2000: viii). Areas of production such as harvesting and processing that require a high level of skill will be most severely affected.

TABLE THREE: Impact of HIV/AIDS on agricultural labour in selected African countries (projected losses in percentages)

Country	**2000**	**2020**
Namibia	3.0	26.0
Botswana	6.6	23.2
Zimbabwe	9.6	22.7
Mozambique	2.3	20.0
South Africa	**3.9**	**19.9**
Kenya	**3.9**	**16.8**
Malawi	5.8	13.8
Uganda	12.8	13.7
Tanzania	5.8	12.7
Central African Republic	6.3	12.6
Ivory Coast	5.6	11.4
Cameroon	2.9	10.7

Source: FAO, 2001, cited in Fourie and Schonteich, 2001: 32

It should also be emphasised that the impact on commercial agriculture is only one side of the story. In much of southern Africa, agriculture is not the dominant economic sector, even while access to land and its resources is important for the diverse multiple livelihood strategies of many rural denizens.

5.3.2 Impact on the Small-Scale and Subsistence Sectors

Many studies conducted on the impact of HIV/AIDS in Africa have focused on the farm-household level (du Guerney, 2001a: 9; HSRC, 2001a: 13; Mutangadura, Jackson and Mukurazita, 1999) where agricultural production at the subsistence or small-scale level is often embedded within multiple-livelihood strategies and systems. Over the past two decades there have been profound transformations in these livelihood systems in Africa, set in motion by Structural Adjustment Programmes, the removal of agricultural subsidies and the dismantling of parastatal marketing boards (Bryceson and Bank, 2000). As a result of these and other issues, many African households have shifted to non-agricultural income sources and diversified their livelihood strategies.

However, despite the evident diversification out of agriculture, rural production remains an important component of many rural livelihoods throughout Sub-Saharan Africa. 'African rural dwellers …deeply value the pursuit of farming…food self-provisioning is gaining in importance against a backdrop of food inflation and proliferating cash needs' (Bryceson, 2000, cited in Cousins, 2001). Participation in "small-plot agriculture" is highly gendered, with women taking major responsibility for it as one aspect of a multiple livelihood strategy. Access to land-based natural resources remains a vital component of rural livelihoods particularly as a safety net. In this context, land tenure becomes increasingly important for the diverse livelihood strategies pursued by different households.

Diversification out of agriculture may be compounded by the affect of HIV/AIDS in a number of ways. These include its impact on labour, the disruption of the dynamics of traditional social security mechanisms and the forced disposal of productive assets to pay for such things as medical care and funerals. In turn, local farming skills are drained and biodiversity in crop variety diminished. Indigenous knowledge systems and technology adapted by farmers to suit the particular conditions of specific areas often die with the farmers (Brough, 2001). A large number of Sub-Saharan African countries have already experienced a shift in the allocation of labour especially by subsistence households (Balyamujura *et al*, 2000: 24).

A study in Zimbabwe conducted by the Zimbabwe Farmers Union showed that the death of a breadwinner due to AIDS will lead to a reduction in maize production in the small-scale farming sector and communal areas of 61 percent (Bolinger and Stover, 1999 quoted in Balyamujura *et al*, 2000: 24). The loss of agricultural labour is likely to cause farmers to move to production of less labour intensive crops in a bid to ensure their survival. This often means a shift from cash to food crops or high value to low value crops. Haslwimmer has further developed this argument emphasising that the impact of HIV/AIDS on crop production relates to a reduction in land use, a decline in crop yields and a decline in the range of crops grown, mainly with reference to subsistence agriculture (1996). Reduction in land use occurs as a result of fewer family members being available to work in cultivated areas and due to poverty resulting in malnutrition leading to the inability of family members to perform agricultural work (Balyamujura *et al*, 2000: 24). This, in turn, leads to less cash income for inputs such as seeds and fertiliser. In Ethiopia, for example, labour losses reduced time spent on agriculture from 33.6 hours per week for non AIDS–affected households to between 11.6 to 16.4 hours for those affected by AIDS (Louwenson and Whiteside, 2001: 10).

At a recent workshop on HIV/AIDS and land, the FAO director in South Africa stated that the food shortages facing several Southern African countries, including Lesotho and Zimbabwe, were 'a stark demonstration of the collective failure to recognise and act upon the deep-rooted linkages between food security and HIV/AIDS'[5]. This reiterates the argument that the continuous interruption of labour may also impact on the type of crops grown, and hence substitution between crops may take place. This is especially true for labour intensive crops, which would likely result in the substitution for less labour intensive production and a possible decrease in the area being cultivated. Food security therefore becomes an important issue in the context of HIV/AIDS. Food security implies that every individual in a society has a sustainable food supply of adequate quality and quantity to ensure nutritional needs are satisfied and a healthy active life be maintained. At a household level, food security refers to

[5] SARPN Press Release, June 2002, 'HIV/AIDS and Land in southern Africa: further challenges for food security, land reform and agricultural development'.

the ability of households to meet target levels of dietary needs of their members from their own production or through purchases (FAO, 1990).

According to Louwenson and Whiteside, the impact of HIV/AIDS on agriculture directly affects food security, as it reduces:

- Food availability (through falling production, loss of family labour, land and other resources, loss of livestock assets and implements).
- Food access (through declining income for food purchases).
- The stability and quality of food supplies (through shifts to less labour intensive production) (2001: 10).

HIV/AIDS can therefore be a cause of food insecurity and a consequence thereof. For example, during times of food insecurity, such as during drought, individuals or families can be forced to engage in survival strategies that increase their vulnerability to contracting HIV (WFP, 2001).

Natural resource management has also been directly impacted on by HIV/AIDS, which has important implications for non-agriculturally based multiple livelihood systems. Conservation and resource management are also dependent on human factors such as labour, skills, expertise and finances that have been affected by the epidemic. Therefore the reduction in the number and capacity of 'willing, qualified, capable and productive people' who have managed natural resources has negatively impacted on sustainable utilisation of these resources (Dwasi, 2002). In addition, the epidemic can impact natural resource conservation and management by accelerating the rate of extraction of natural resources to meet increased and new HIV/AIDS demands.

These issues relating to labour, production, natural resource management and food security are elaborated in more detail in the following section describing household production.

6. The Impact on Household Livelihood Strategies

As emphasised above, various research initiatives have shown that HIV/AIDS first affects the welfare of households through illness and death of family members, which in turn leads to the diversion of resources from savings and investments into care (Cohen, 1993; HSRC, 2001a; Rugalema, 1999a). The HSRC has argued that it is expected that the premature death of large numbers of the adult population, typically at ages when they have already started families and become economically productive, can have a radical effect on virtually every aspect of social and economic life (2001a: 13). This is clearly indicated by an increase in the number of dependents relying on smaller numbers of productive household members and increasing numbers of children left behind to be raised by grandparents or as child-headed households.

According to LoveLife (2000), once a household member develops AIDS, increased medical and other costs, such as transport to and from health services, occur simultaneously with reduced capacity to work, creating a double economic burden. Cohen (1997) and Ayieko (1998) have undertaken case studies showing that households with an AIDS sufferer frequently seek to keep up with medical costs by selling livestock and other assets including land. Members who would otherwise be able to earn or perform household and family maintenance may then be spending their time caring for the person with AIDS. An example

was cited in a recent study where a son with a sick mother in Zambia reported that he spent more time looking for money to make ends meet by working in the field and doing casual jobs, and in addition having to contribute an average of three hours a day towards caring for his mother and staying up part of the night attending to her needs (Balyamujura *et al*, 2000: 21).

This emphasises an impact of HIV/AIDS illness and death, which often results in the re-allocation of livelihood tasks amongst household members. Rugalema (1999a) reports that intensive use of child labour increases as a major strategy typically used by the afflicted household during care provision. Children may be taken out of school to fill labour and income gaps created when productive adults become ill or are caring for terminally ill households members or are deceased. Drawing from another study in Tanzania, Rugalema confirms that the illness affects time allocation, puts pressure on children to work, divert household cash and the disposal of household productive assets (1999b). HIV/AIDS is therefore an impoverishing process that leads to other problems such as malnutrition, inaccessibility to health care, increased child mortality and hence intergenerational poverty.

It is important to recognise that the impact of HIV/AIDS on rural households is not equal: the poorer ones, especially those with small land holdings are much less able to cope with the effects of HIV/AIDS than wealthier households who can hire casual labour and are better able to absorb shocks. Du Guerney has raised the question as to who benefits from the sales of assets by farm-households attempting to cope with the long drawn-out effects of HIV/AIDS (2001a: 9). In his view, the number of occurrences evident could lead to significant changes in the socio-economic structures of villages, redistribution of wealth and of land. HIV/AIDS infection ultimately stretches the resources of an extended family beyond its limits as both material and non-material resources are rapidly consumed in caring for the infected.

Baier (1997) and Cohen (1998) have drawn attention to the manner in which HIV/AIDS can cause affected households to become socially excluded, thus diminishing their ability to cope with further crises. Similarly, extended family networks sometimes collapse, not least due to pressure of having to support orphaned children (Halkett quoted in Aliber, 2001). Moreover, it has been argued that in KwaZulu-Natal, South Africa, HIV/AIDS has forced a change in household composition, severely weakening and often breaking the young adult nexus between generations (Marcus, 2000: 19). This, in turn, exacerbates an already existing social crisis of care, which worsens as the epidemic progresses. It is a social context that is unlikely to withstand the weight of need that HIV/AIDS related deaths generate and many, especially children and the aged, face economic and social destitution (Marcus, 2000: 19).

It is increasingly clear that as a result of HIV/AIDS causing significant increases in morbidity and mortality in prime-age adults, increasing negative social, economic and developmental impacts will occur. As clearly indicated, the economic impact at the household level will be decreased income, increased health-care costs, decreased productivity capacity and changing expenditure patterns. Major survival strategies developed in response to the epidemic may include the altering household composition the withdrawal of savings and the sale of assets, the receipt of assistance from other households. Following death the impact breaks out of the household and into the community in the form of increasing number of dependents such as orphans.

6.1 Coping Strategies – or simply surviving?

In the face of the extreme impact of HIV/AIDS, Balyamujura *et al* refer to three categories identified by UNAIDS in which strategies to cope with the epidemic can be divided (2000). These strategies have been elaborated in table four below. UNAIDS suggest that individuals and households undergo processes of experimentation and adaptation when adult illness and death impacts whilst an attempt is made to cope with immediate and long-term demographic changes (1999). Several factors will determine a household's ability to cope including access to resources, household size and composition, access to resources of the extended family, and the ability of the community to provide support (UNAIDS, 1999). The interaction of these factors will determine the severity of the impact of HIV/AIDS on the household.

TABLE FOUR: Household Coping Strategies

Strategies aimed at improving food security	**Strategies aimed at raising & supplementing income to maintain household expenditure patterns**	**Strategies aimed at alleviating the loss of labour**
• Substitute cheaper commodities (eg. porridge instead of bread) • Reduce consumption of the item • Send children away to live with relatives • Replace food item with indigenous/wild vegetables • Beg	• Income diversification • Migrate in search of new jobs • Loans • Sale of assets • Use of savings or investment	• Intra-household labour re-allocation and withdrawing of children from school • Put in extra hours • Hire labour and draught power • Decrease cultivated area • Relatives come to help • Diversify source of income

Source: UNAIDS (1999)

Rugalema (1999a) has, however, challenged the usefulness of the concept of "coping strategies" put forward by UNAIDS and others (see Topouzis, 1999). The central point of this argument is that the concept is of limited value in explaining the household experience in the context of HIV/AIDS and may divert policy-makers from the enormity of the crisis. Rugalema agrees that AIDS-induced morbidity and mortality has an immense impact on rural households[6] but questions whether the observed effects should be defined as "coping strategies" (1999a: 4). He argues that any meaningful analysis of coping behaviour must include the real and full costs of coping.

Rugalema posits several reasons why the concept is of limited use and explores alternative ways of conceptualising the impact of HIV/AIDS in more detail. Firstly Rugalema defines the concept as being essentially concerned with the analysis of success rather than failure of the

[6] Rugalema describes, amongst others, the negative effect of HIV/AIDS-induced illness and death on the ability to produce food, schooling of children, cropping patterns, livestock production, the allocation of labour, access to productive assets and the consumption of goods and services essential for household maintenance and reproduction.

household as it implies that the household is managing or persevering. This ignores evidence that households often dissolve completely with survivors joining other households. This runs contrary to a concept of strategy intended to avert the breakdown of the household unit.

Secondly, he argues that households do not act in accordance with a previously formulated plan or strategy but react to the immediacy of need, disposing of their assets when no alternatives present themselves. Decisions are not based on the importance or usefulness of the asset to the household as saving lives is deemed more important than preserving assets. Rugalema argues that more evidence is emerging that even land, the "most important agrarian asset", may not be spared in the quest to 'cope' with illness (1999a: 11). Indeed, a recent study on the impact of HIV/AIDS on female microfinance clients in Kenya and Uganda, found that there was a clear sequence of "asset liquidation" among AIDS caregivers in order to cope with the economic impact – first liquidating savings, then business income, then household assets, then productive assets and, finally, disposing of land (Donahue *et al*, 2000). This last resort of disposing of land has profound consequences for people losing their economic base. Walker asserts that such people are likely to be those with fewest options and those who are most vulnerable (2002: 8).

Thirdly, Rugalema indicates that coping strategies tend to be defined as short-term responses to entitlement failure giving the impression that it involves few additional costs thereby obscuring the true cost of coping. In Tanzania, Rugalema found that short and long-term costs included curtailing the number and quality of meals that a household could afford which resulted in poor nutrition with obvious implications for health. Another household option was the withdrawal of children, mostly girls, from school in order to utilise their labour and save money, which, amongst other things, had ramifications for future literacy levels and the child's participation in the modern economy. The positive gloss accorded to coping invariably ignored long-term costs that fundamentally jeopardise recovery of a household let alone sustainability.

In summary, Rugalema argues that reference to coping strategies may make sense in circumstances of drought or famine but not for the impact of HIV/AIDS, which not only changes communities and demographic patterns but also agro-ecological landscapes with long-term implications for recovery. The fact that AIDS kills the strong people and leaves behind the weak undermines the capacity of households and communities, especially in the long-term. It is therefore important to further differentiate the household according into their various possible members with an emphasis on the power relations between people forced to respond to the compounding impact of HIV/AIDS on their livelihood strategies.

6.2 Women and HIV/AIDS

There are a number of interlocking reasons why women are more vulnerable than men to HIV/AIDS, which include female physiology, women's lack of power to negotiate sexual relationships with male partners, especially in marriage, and the gendered nature of poverty, with poor women particularly vulnerable (Walker, 2002: 7). Inequities in gender run parallel to inequities in income and assets. Thus women are vulnerable not only to HIV/AIDS infection but also to the economic impact of HIV/AIDS. This is often a result of the gendered power relations evident in rural households (Waterhouse and Vifjhuizen, 2001)[7], which can

[7] Waterhouse & Vifjhuizen have edited an excellent account of gender, land and natural resources in different rural contexts in Mozambique, which vigorously addresses the power relations women often face in the rural household context.

leave women prone to the infection of HIV. With increasing economic insecurity women become vulnerable to sexual harassment and exploitation at and beyond the workplace, and to trading in sexual activities to secure income for household needs (Loewenson and Whiteside, 1997).

As a result, women have experienced the greatest losses and burdens associated with economic and political crises and shocks (Collins and Rau, 2001: 19) with particularly severe impact from HIV/AIDS. The epidemic exacerbates social, economic and cultural inequalities (economic need, lack of employment opportunities, poor access to education, health and information), which define women's status in society (IFAD, 2001: 10). Collins and Rau have considered a number of the linkages between gender inequalities and HIV/AIDS (2001: 21):

- *Breakdown of household regimes and attendant forms of security*: Decades of changes in economic activity and gender relations have placed many women in increasingly difficult situations (Rugalema, 1994). HIV/AIDS has accelerated the process and made "normal" sexual relations very risky. Women whose husbands have migrated for work are afraid of the return of the men knowing that they may be HIV-infected. Although poorly documented, the range and depth of women's responsibilities have increased during the era of HIV/AIDS. More active care giving for sick and dying relatives have been added to the existing workload. Children have been withdrawn from school, usually girl-children first, to save both on costs and to add to labour in the household. Thus HIV/AIDS is facilitating a further and fairly rapid differentiation along gender lines.
- *Loss of livelihood*: Whether women receive remittances from men working away from home, are given "allowances", or earn income themselves, HIV/AIDS has made the availability of cash more problematic.
- *Loss of assets*: Although poorly documented, fairly substantial investments in medical care occur among many households affected by HIV/AIDS. These costs may be met by disinvestments in assets. Household food security is often affected in negative ways. Furthermore, in many parts of Africa, women lose all or most household assets after the death of a husband.
- *Survival sex*: Low incomes, disinvestments, constrained cash flow – all place economic pressures on women. Anecdotal evidence and some studies indicate that these pressures push a number of women into situations where sex is coerced in exchange for small cash or in-kind payments (ICRW, 1996: 6-7).

Women frequently carrying a double burden of generating income outside the home and for care giving as well as maintaining family land (Loewenson and Whiteside, 1997). In this regard, women are responsible for caring for sick members of the household, for childcare, as well as being heavily involved in generating money and supplying food for their households through agricultural production. Further, the burden of caring for people living with HIV/AIDS and for orphans falls largely on women. Thus, it has been argued that the illness and death of a women has a "particularly dramatic impact on the family" in that it threatens household food security, especially when households depend primarily on women's labour for food production, animal tendering, crop planting and harvesting (IFAD, 2001: 11).

In rural areas, women tend to be even more disadvantaged due to reduced access to productive resources and support services. Indeed, the World Bank has suggested that "low income, income inequality, and low status of women are all fairly highly associated with high levels of HIV infection" (Ainsworth cited in IFAD, 2001: 11). UNAIDS has also reported that some traditional mechanisms to ensure women's access to land in case of widowhood

contributes to the spread of the HIV infection (2000 cited in HSRC, 2001a: 14). Baier has shown that women who are widowed due to HIV/AIDS sometimes lose rights to land, adding to an already precarious situation (1997). In some contexts, if a widow does not marry her husband's brother she loses access to her husband's property (HSRC, 2001a; IFAD, 2001: 10). The issue of AIDS and inheritance is therefore particularly important when discussing the impact of HIV/AIDS on women. Many customary tenure systems provide little independent security of tenure to women on the death of their husband, with land often falling back to the husband's lineage. While this may, traditionally, not have posed problems, it may create serious hardship and dislocation in the many cases of AIDS-related deaths.

6.3 Children and HIV/AIDS

HIV/AIDS impacts on children in two major ways: as a disease that kills their parents (and/or other adult guardians) leaving them as orphans[8], and as a disease that infects them as well. In 2000, 90 percent of the 11 million orphans left by the global HIV/AIDS epidemic were children living in Sub-Saharan Africa, even though only a tenth of the world's population lives in the region (Fourie and Schonteich, 2001: 38). By 2010 the Southern African region is expected to have 5.5 million maternal or double orphans, approximately 16 percent of all children under the age of 15 years, of which 87 percent will be orphaned because of the HIV/AIDS epidemic (USAID, 2000).

Orphans are by tradition absorbed into the extended family. However, the impact of HIV/AIDS on the extended family is more acute than in any way experienced before, which has resulted in the system of absorbing orphans breaking down where it existed in the past (Foster *et al*, 1998). The United Nations Children Fund (UNICEF) has concluded that Africa's age-old social safety net for orphans, in the form of deep-rooted kinship systems and extended family networks, is unable to cope with the strain of HIV/AIDS and soaring numbers of orphans in the most affected countries (1999, cited in Schonteich, 2001). HIV/AIDS has accentuated the impact of urbanisation and labour migration, which have been destroying such extended family structures.

According to Fourie and Schonteich studies that have been conducted on the plight of orphans and their caretakers have shown that families that foster children in Kenya usually live below the poverty line, and that orphan households in Tanzania have more children, are larger, and have less favourable dependency ratios (2001). Research commissioned by the Nelson Mandela Children's Fund found that South African AIDS orphans are being ostracised by their communities and exploited financially by relatives who had taken them in, primarily to receive a state grant (Thompson, 2001).

These problems are unlikely to be short-term phenomenon. The HIV/AIDS epidemic has transformed the issue of orphaning from a sporadic, short-term problem caused historically by war, famine or disease, into a long-term chronic problem that will extend at least through the first third of the twenty-first century (Schonteich, 2001: 2). This is because the increase in orphan rates lags behind HIV infection levels by about ten years, the time it takes the average person who contracts the virus to die from full-blown AIDS. HIV/AIDS is also decimating the next generation of caregivers with severe implications for the offspring of today's generation of orphans, who will not have grandparents to care for them (Walker, 2002: 8).

[8] According to UNAIDS, an orphan is a child under 15 years of age who has lost his/her mother or both parents to HIV/AIDS.

6.4 The Elderly and HIV/AIDS

As clearly illustrated above, the HIV/AIDS epidemic has immense ramifications for the structure of households with prolonged emotional and financial responsibilities of child-raising for grandparents. Large numbers of orphans have been left in the care of their grandparents across Southern Africa. Research in South Africa has reported that by 2015, if nothing changes, nearly one in every three children aged 15 to 17 will have no mother (Pretoria News, 4 April 2002). Du Guerny has argued that the role of the elderly in rural development in the context of the HIV/AIDS epidemic has been neglected (2001). He has attempted to examine under what circumstances the elderly can play in rural areas of developing countries. Drawing on the UNGASS Declaration, du Guerney argues that the elderly can play a crucial role, not just in care giving, but in ensuring the food security of millions of affected rural farm-households (2001b).

The population projection with HIV/AIDS scenario by US Bureau of Census highlights changes in sex and age structure from the perspective of elderly at the national level, particularly for Botswana and South Africa, two of the worst affected countries. Du Guerney has argued that the population pyramids for these countries suggest that:

- In 20 years time a significant number of 60-69 year olds will be dead (HIV mortality peaks around 30-34 years for women and 40-44 years for men),
- The surviving younger elderly of 60 years or more will have a role as care and subsistence of older ones.
- Number of children will decline significantly over 20 years,
- Due to change in sex ratio for adults, female age group, middle age and young elderly will have a burden of care and housework and this will force changes in division of labour (2001b).

In Botswana more rapid ageing is seen in rural areas than in urban areas. This is also reflected in South Africa as a result of younger working age people migrating from rural communities and older people often returning (du Guerny, 2001b). In countries such as Kenya, infection rates tend to be higher in densely populated areas, which are the most productive agricultural areas. With this spread of HIV/AIDS, it can be concluded that there will be fewer young adults who will be able to carry out essential tasks. Therefore the elderly will increasingly be required to do such tasks. Du Guerney concludes that the elderly are a largely invisible resource in the context of HIV/AIDS, requiring assistance and empowerment in order to fulfill its indispensable potential in areas of crisis. Thus the rural elderly have a potential to play a pivotal role of holding together farm households, ensuring food security and survival of orphans.

7. A Conceptual Framework: HIV/AIDS and Land

From this background paper and the range of literature reviewed, it is clear that the epidemic has serious implications for households depending on land-based livelihoods and consequently a range of land issues. These issues include different forms of land use, various types of land tenure and land reform projects that are most appropriate, the functioning of land administration systems, the land rights of women and orphans as well of the poor generally, and inheritance practices and norms.

As indicated in this background paper, the impact of HIV/AIDS on people and households is widely documented although clear empirical evidence around the impact of the epidemic on land issues remains scarce. To help conceptualise this impact the literature can best be utilised to identify the phases of HIV/AIDS: asymptomatic; early illness; chronic illness; critical illness; death and, lastly, survivors. Each phase of the disease is associated with a different impact, which has different implications for land issues. It is important to emphasise the final category on this continuum - the category of survivors. HIV/AIDS has a massive impact on those left living, as there are many more affected than infected people.

Mercedes Sayagues has usefully reiterated and summarised these phases through a general narrative outlining the impact of HIV/AIDS on the agricultural production of an African household (Mail and Guardian, 16 August 1999). This narrative recaptures much of the discussion in the previous section in a summary that begins to conceptualise the impact on land:

> "A man is taken ill. While nursing him, the wife can't weed the maize and cotton fields, mulch and pare the banana trees, dry the coffee or harvest the rice. This means less food crops and less income from cash crops. Trips to town for medical treatment, hospital fees and medicines consume savings. Traditional healers are paid in livestock. The man dies. Farm tools, sometimes cattle, are sold to pay burial expenses. Mourning practices (in Zimbabwe) forbid farming for several days. Precious time for farm chores is lost. In the next season, unable to hire casual labour, the family plants a smaller area. Without pesticides, weeds and bugs multiply. Children leave school to weed and harvest. Again yields are lower. With little home-grown food and without cash to buy fish or meat, family nutrition and health suffer. If the mother becomes ill with AIDS, the cycle of asset and labour loss is repeated. Families withdraw into subsistence farming. Overall production of cash crops drops".

This narrative captures the stark reality of the cruel impact that HIV/AIDS has on the household producing on the margins (and above) the subsistence level. Many of these experiences indicate the powerful linkages between HIV/AIDS and land. There are therefore a number of theoretical considerations that should be recognised from this paper that need to be taken into account when evaluating the impact of HIV/AIDS on land issues in the country studies (Rugalema, 2002).

From the literature it is clear that prolonged illness and early death alter social relations. It can therefore be assumed that such relations would include institutions governing access to and inheritance of land. Prolonged morbidity and mortality would also contribute to the disposal of land to cater for the care, treatment and funeral costs. As Rugalema has indicated, this is a "double-edged sword" as on the one side access and utilisation are affected among households and individuals, and on the other hand it would affect land planning and administration at various levels. These changes, particularly as they relate to individuals and households, would have dimensions across both age and gender. Therefore, in summary, HIV-related mortality would alter the land rights or the command positions held by people of different age and gender over land. An analysis of the impact of HIV/AIDS on land is essentially an analysis of changes in social institutions in which rights to land are anchored (Rugalema, 2002). Therefore the analysis needs to take cognisance of a range of social attributes that affect the dynamics of land relations:

- Cultural, legal, political and other social dimensions affecting entitlement;

- How HIV/AIDS affects land entitlement and how land entitlement affects HIV/AIDS;
- Whether lack of entitlement to land increases vulnerability to HIV/AIDS;
- How HIV/AIDS impacts on institutions involved in land administration;
- The inputs needed to secure effective use of land by HIV/AIDS affected households;
- The fact that entitlement is not static and changes across gender and age;
- The complex continuum from landed to landless;
- The fact that although access to land may not be the most effective strategy for HIV/AIDS affected households, in rural areas it is likely to remain central to their survival.

From this discussion it is evident that the concept of land issues is extremely broad. To further help conceptualise the impact of HIV/AIDS, these "issues" have been differentiated into three main areas for this study, namely land use, land rights and land administration. The impact on these areas is usefully conceptualised through the lens of the household particularly as HIV/AIDS is depriving families and communities of their young and most productive people:

- HIV/AIDS-affected households generally have less access to labour, less capital to invest in agriculture, and are less productive due to limited financial and human resources. Thus the issue of land use becomes extremely important as a result of the epidemic's impact on mortality, morbidity and resultant loss of skills, knowledge and the diversion of scarce resources. A range of multiple livelihood strategies, often involving land, has been affected resulting in changes as rural households fight for survival in the context of the epidemic.

- The focus on land rights considers the extent of impact on the terms and conditions in which individuals and households hold, use and transact land. This has particular resonance with women and children rights in the context of rural power relations, which are falling under increasing pressure from HIV/AIDS. Anecdotal evidence from around the region indicates that dispossession, particularly for AIDS-widows, is increasingly becoming a problem in locations with patrilineal inheritance of land[9]. There are, however, a number of other issues to be examined in relation to HIV/AIDS and land tenure especially in localities that are experiencing increasing land pressure, land scarcity, commercialisation of agriculture, increased investment, and intensifying competition and conflicts over land**.**

- The impact on land administration is a related issue and is a result of epidemic affecting people involved in the institutions that are directly or indirectly involved in the administration of land. These include local level or community institutions such as traditional authorities, civil society, various levels of government, and the private sector.

These dimensions have been explored in each of the country studies and particularly emphasised in the synthesis report which attempts to draw the three studies into a comparative and reflective analysis that may inform land policies across the southern and east African regions.

[9] The specificities of matrilineal inheritance of land also needs to be recognised although anecdotal evidence around abuses seems to indicate a much lower occurrence.

8. Introduction to Country Studies

At national and local levels, new social science research, closely linked to the needs of policy makers and advocates, is urgently needed on the progress of the HIV/AIDS epidemic in specific circumstances: it is important to know who is affected, why and how; and to devise ways to lessen the vulnerability of particular groups. It is within this spirit that this study was co-ordinated by the HSRC on behalf of FAO.

HIV/AIDS and land tenure are extremely complex and sensitive issues. One cannot generalise from specific cases as unique local manifestations of the impact of the epidemic on households and communities in terms of access and rights to land. However, case studies are extremely important as they reveal the real issues facing individuals living in the face of HIV/AIDS. A major problem for counteracting the developmental impact of the epidemic is the lack of hard data on real changes (Loewenson and Whiteside, 2001: 5). The three studies of cases in Lesotho, Kenya and South Africa attempt to document some of these changes relating to the impact of HIV/AIDS on land issues.

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