

RENEWAL Working Paper 1

HIV/AIDS, AGRICULTURE AND FOOD SECURITY IN MALAWI

Background to Action

Naomi Ngwira, Sam Bota and Michael Loevinsohn



**Regional Network on HIV/AIDS,
Rural Livelihoods and Food Security**



Ministry of Agriculture and Irrigation

RENEWAL is a regional network of national networks of agricultural institutions, public, private, NGO and farmers' organizations, together with partners in AIDS and public health. The joint purpose of these networks is to show that fresh thinking in agricultural research and development policy and concerted action can help prevent HIV infection and lessen the impact of AIDS. RENEWAL is facilitated by the International Service for National Agricultural Research (ISNAR) and the International Food Policy Research Institute (IFPRI), with the support of Norway, Canada (CIDA and IDRC), USAID and WFP.

Lilongwe and The Hague, 2001

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Introduction

It is now widely accepted that AIDS is not just a health issue. In the recently developed Poverty Reduction Strategy Paper, the Malawi people and government designated HIV/AIDS as a crosscutting issue, and the Malawi National HIV/AIDS Strategic Framework 2000-2004 calls for “an expanded, multi-sectoral national response to the epidemic.” However the capacity to respond to these calls lags behind. In many sectors, policy making still proceeds as if HIV/AIDS never happened. Despite growing efforts, organizations involved in agricultural research and development generally have limited understanding of how AIDS affects agricultural systems, and even more limited knowledge of how agricultural development may contribute to the spread of HIV. Weakest of all is often their appreciation of what they can do, feasibly, to contribute to more effective HIV-prevention and mitigation of AIDS impacts. No single institution can expect to have significant impact if it acts alone, but decision makers in agricultural R&D organizations are unlikely to be familiar with the range of actors among whom they might find collaborators.

This background paper critically assesses current knowledge in these areas. It was intended to provide input to a “Think Tank” (Mangochi, November 7-9, 2001) involving scientists, policy makers and development workers from key organizations. Over the three days of intense discussion, the Think Tank participants refined priorities for Malawi’s participation in a multi-country, action-research project aimed at enabling agricultural R&D organizations to respond effectively to AIDS, in collaboration with organizations in social development and public health. Their recommendations in terms of activities and governance of the project were examined, modified and finally endorsed up by a Stakeholder Workshop (Lilongwe, November 12-13, 2001). Similar processes will be followed in Uganda early in 2002 and in other countries of the region within a year.

The paper is structured as follows. Chapter 1 documents the dimensions of the HIV/AIDS epidemic in Malawi, drawing on national, regional and district trends, and comments on the extent and reliability of current epidemiological information and projections. Chapter 2 summarizes what is known from Malawi and elsewhere concerning the contribution of agriculture to the spread of HIV. It also examines what is known concerning the impact of AIDS on agriculturally based livelihoods, and nutrition and food security. In all this, critical knowledge gaps are highlighted. Chapter 3 describes the objectives, programs and activities of institutions concerned with AIDS and Agriculture-related activities.

2. Approach to compiling the Report

The research team held discussions with a number of organisations (public, international, NGOs, and Community Based Organisations) in order to get a picture of the HIV/AIDS-agriculture related issues that these organisations deal with. The research team also drew a lot from previous studies done in the country and elsewhere in order to come up with a more comprehensive picture of the situation.

Chapter 1. Dimensions of the HIV and AIDS Epidemic in Malawi

“AIDS is not just a health problem”, it is now widely proclaimed. Yet it is still often presented as one. This makes it difficult for people working in other sectors, like agriculture and rural development, to relate to HIV/AIDS in terms of their own experience, their own professional responsibilities and the mandates of their own institutions. Figures 1 and 5 sketch a framework that may help to stimulate discussion of HIV/AIDS’ wider causes and impacts. We will return to this framework at several points in this paper.

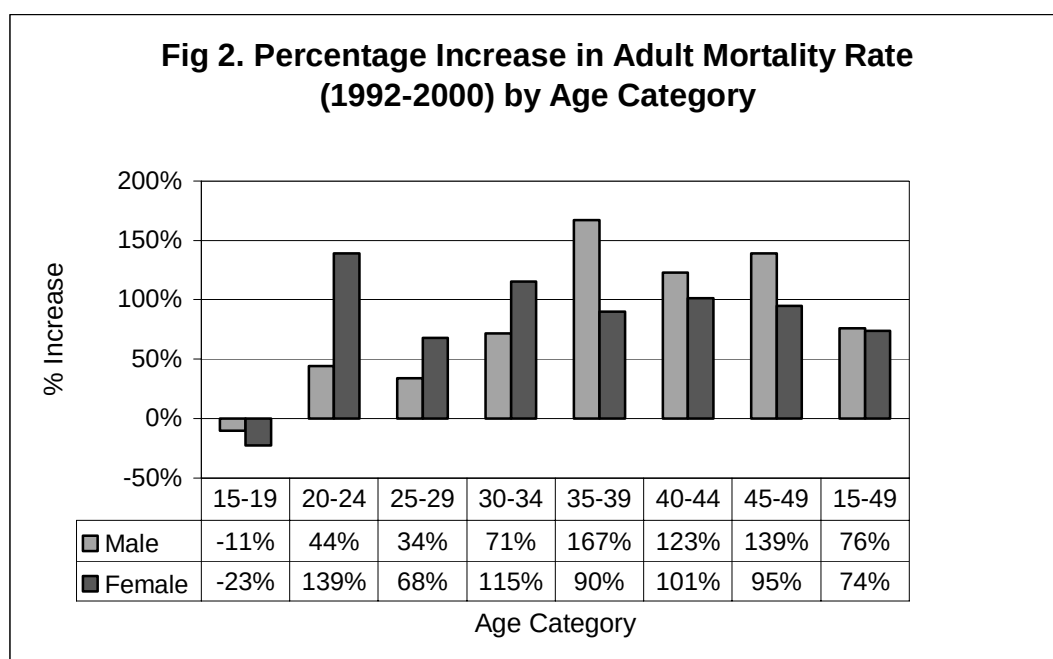
In trying to make sense of the upsurge and spread of HIV/AIDS, attention often focuses on the most immediate causes, in the microbiological and micro-environmental spheres (Fig. 1). Microbiological factors include, among others, the nature of the virus, the presence of other sexually transmitted infections (STIs), the concentration of HIV in the breast milk of infected women and physiological characteristics that make women particularly susceptible to HIV. The micro-environment includes personal and inter-personal factors, notably what individuals know about HIV and AIDS, how they regard those risks, and what they do, both in terms of sexual behaviour and in terms of putting themselves, often by movement on a seasonal or longer term basis, into situations of particular infection risk. The interventions that this focus fosters are medical and public health ones: treatment with drugs to prevent mother-to-child transmission, information-education and communication (IEC) promoting sexual behaviour change, condom use, voluntary counselling and testing (VCT) and breastfeeding. These are the dominant preventive interventions today in Malawi, as elsewhere in Africa.

A recent review of the literature relating to sexual behaviour in Malawi concludes that, despite often high levels of knowledge about HIV and AIDS, there is little evidence as yet of significant change in hazardous behaviour and little evidence for the effectiveness of current efforts to bring this about (Malawi Government, 2001a). Drawing also on UNAIDS continent-wide assessments, the review stresses the importance of taking account of a wider range of factors in these efforts, factors that influence people’s motivation for and ability to alter their behaviour. Poverty and male-dominated sexual relations are key here. The socio-economic, cultural, political and physical determinants that lie behind them operate in what Figure 1 calls the meso- and macro-environments. These include factors like farming systems, natural resources, community governance structures, the broad physical and natural influences on agriculture and macro-policies, all of which are generally the concern of agricultural and rural development organizations. We return in the next chapter to consider in more detail how these organizations may be implicated.

Trends in HIV Prevalence and AIDS-linked Mortality

HIV/AIDS has spread rapidly in Malawi over the past two decades. The prevalence of infection among adults is estimated to have grown from 1.7% in 1987 to 14.3% ten years later (NAC, 2001). This is reflected in a massive increase in death rate, 76% for men and 74% for women between 1992 and 2000 (DHS, 2001). Given the absence of other major disasters or epidemics, the increase can reasonably be attributed to AIDS. While adults have been the most affected, it is important to note that there has also been a large increase in infant and early childhood mortality linked to AIDS.

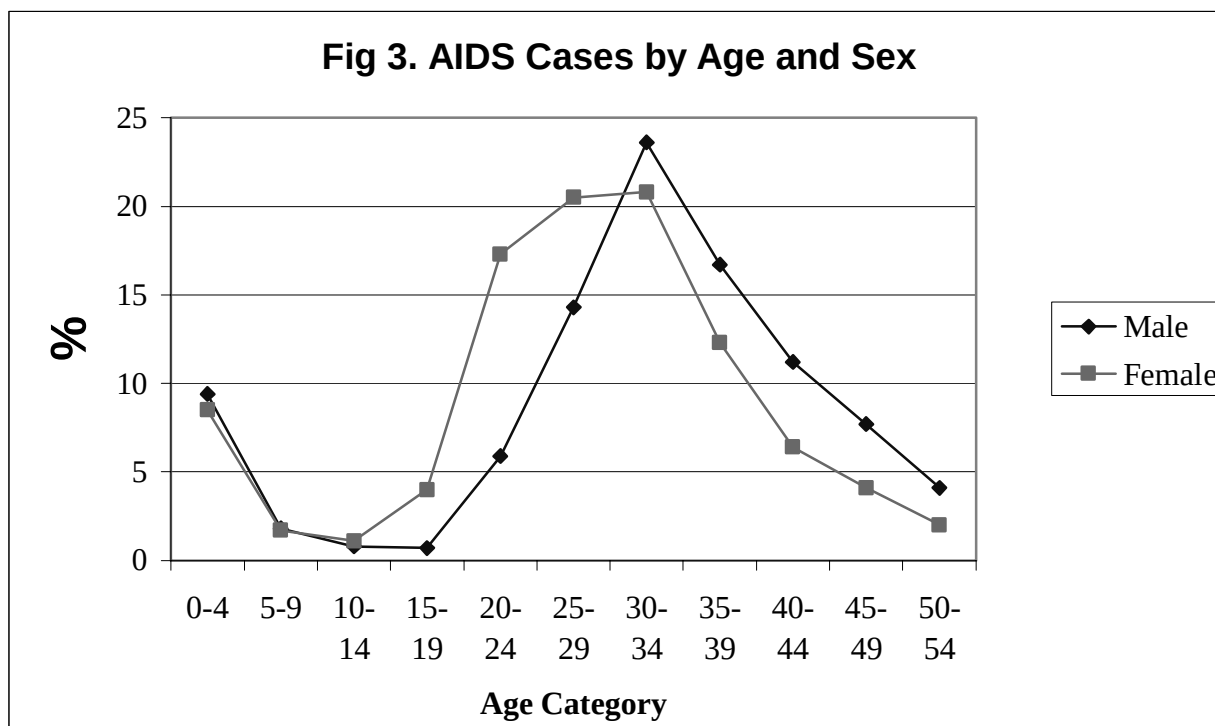
As elsewhere in Africa, Malawian women account for the majority of people living with HIV/AIDS, some 55% (UNAIDS, 2000). A number of factors, including the larger number of women than men in the population and physiological differences in susceptibility, likely contribute to this disproportion. However, cultural and socio-economic factors are likely the most important influences on the marked differences in age-specific patterns of infection. Infection among women begins earlier: in the 15-24 year group, women are 4-6 times as likely to be infected as men of the same age (MPRSP 2001). This reflects early sexual initiation and cultural practices that favour early marriage, as well as the prevalence of sex that is forced or induced by gifts or payment (Malawi Government, 2001a). These differences in infection can be seen again in changes in the pattern of mortality (Fig. 2).



Source: Computed from DHS (2001)

Between 1992 and 2000, death rates fell for people 15-19 years, as is to be expected since there is generally a 5-10 year lag between infection with HIV and death linked to AIDS. However, there was a very sharp increase in death rates among 20-24 year olds, 3 times greater among women than men. It is only in later years, from 35 to 49 years, that the increase among men has exceeded that among women. One implication of this is that the AIDS epidemic has tended to leave older widows, with larger families to care for, than widowers. This adds to the differential impact of AIDS on women, to which we will return later in this chapter.

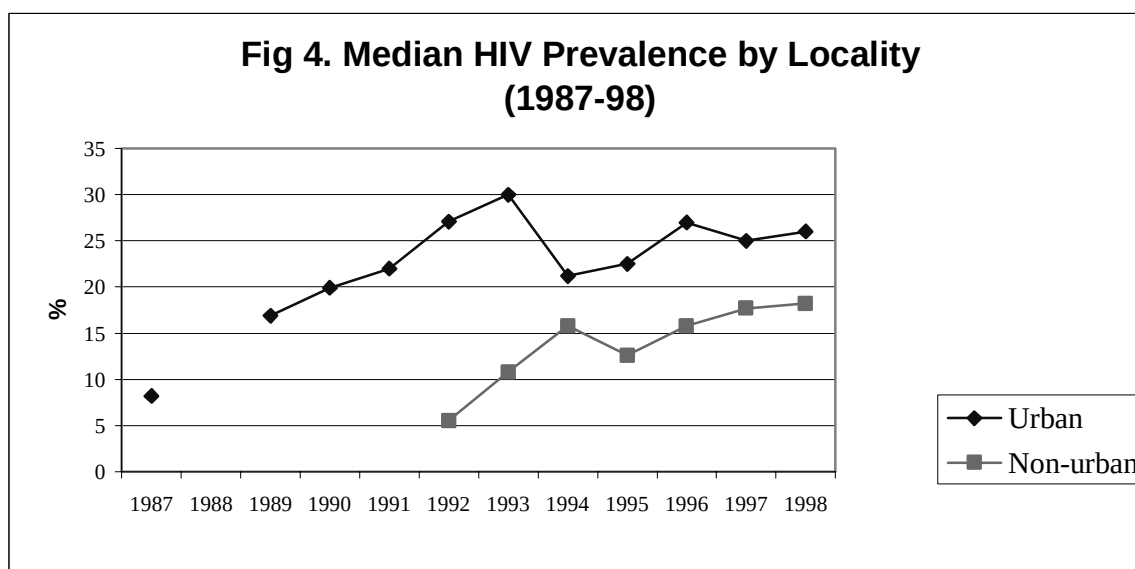
Reporting of AIDS-related deaths is generally thought to be inaccurate and incomplete, particularly given the low level of HIV testing in the general population and the fact that death can result from a variety of opportunistic infections. Nevertheless, the pattern of reported deaths by age and sex in Malawi (Fig. 3) does follow that for HIV prevalence, with a lag of some 5 years, and corresponds with the increase in overall adult mortality seen in Fig. 2.



Source: UNAIDS (2000)

Urban-rural and regional differences In the early stages of the epidemic in Malawi, HIV was far more prevalent in urban than non-urban areas. These differences remain but are steadily narrowing. The median prevalence among non-urban sentinel sites (antenatal clinics) was approximately 20% of that among urban sites in 1992 when nation-wide monitoring began, but 70% in 1998 (Fig. 4). The time series are affected by logistical problems. For example, year-to-year fluctuations in the number of sites reporting account for the sudden downturn in urban rates between 1993 and 1994⁴. However, a number of systemic causes have likely contributed to the narrowing urban-non-urban gap. One of these is the mobility of rural people and their contact with urban environments. Sites that are close to the main cities often have higher rates than those that are more isolated. Mobility is also likely a factor in the risk environment at non-urban sites where prevalence is particularly high, for example, ones near major road and rail routes, in proximity to rural industries that attract large numbers of seasonal workers - notably plantations of tea, coffee and tobacco - and in areas of small-scale fishing, which involves frequent absences by fishers and the influx of traders.

⁴ In the 1992-98 period, the number of urban sites reporting varied from 1-3, and the non-urban sites from 10-16.



Source: UNAIDS (2000)

Regional differences are also apparent. Among non-urban sites, HIV is generally most prevalent in the South, while rates in the North and Centre are similar (Table 1). Again, there are outliers in each region that are well above or below the average. It is difficult to interpret these inter-site differences with any confidence without knowing the characteristics of the catchment areas of the centres and of the women who attend them. Gaps in the time series at particular sites make the task harder. However, there has yet to be any serious effort to explain the variation in susceptibility to HIV of women and men in different parts of Malawi. There is reason to suspect that the characteristics of the agricultural systems on which rural people depend are among the determinants, but there is as yet little firm evidence on which to ground these suspicions and with which to guide action.

Table 1. HIV Prevalence in Non-urban Sentinel Sites, by Region

	1992-94	1996-98
N. Region	12.9	11.7
C. Region	10.4	13.3
S. Region	16.6	19.0

It might be noted that overall death rates have increased more in the South than in the North and Centre during the period of rapid rise in HIV infection (Table 2). Higher death rates may also reflect the greater prevalence and severity of poverty in the Southern region (NEC, 2000). There is likely to be a connection between poverty and HIV/AIDS, although it may not be a simple matter to show this. The links are in both directions: HIV breeds on poverty and inequalities, and AIDS is also a major impoverishing force. However, analyses at this level are unlikely to be helpful in terms of informing action.

Table 2. Crude Death Rate (/1000) by Region (1987-98)

	1987	1998	% Increase
N. Region	14.7	17.8	21%
C. Region	15.3	18.6	22%
S. Region	13	24.3	87%
Malawi	14.1	21.1	50%

The network of 19 antenatal sentinel sites that is now operating in Malawi is crucial for monitoring the evolution of the HIV epidemic and for tracing broad trends in regional HIV distribution and in the incidence of infection among young women. However, it will likely prove insufficiently detailed for purposes such as analysing the influence of particular agricultural systems or rural industries because of the relatively small number of sites. Only eight are located in what are considered rural settings, even though several of these clinics are in district centers and are frequented most by those living nearby. Similar concerns apply to the current monitoring of AIDS-related deaths, whose shortcomings have already been noted. Methods with finer resolution will likely be needed when trying to tease out the contributions of agriculture and rural development to the spread of HIV infection or the impact on them of AIDS-linked illness and death.

The Scales of AIDS' Impacts

What has been said about the determinants of HIV's spread applies in large measure to AIDS' impacts: most discussion focuses on the immediate levels (Fig. 5). HIV affects a person's nutritional status and weakens immunity, both of which open the door to opportunistic infections. The death of adults creates widows, widowers and orphans. AIDS is now responsible for the large majority, more than 275,000, of Malawi's orphans.

Care for the sick and dying is primarily a household and family responsibility and the burden falls heaviest on women. Traditionally men do not care for the sick, so that a woman afflicted with AIDS will rely on female relatives. Because of this, if a married or adult woman falls ill then another household is likely to be affected because an adult woman may be withdrawn to provide nursing care when things get very tough. These local safety nets are likely to be put under great strain as AIDS takes hold in a community. The consequence is increasingly that girls and grandmothers are obliged to take on the responsibilities of sick or dead parents. (OXFAM 2001:2; Mtika 2001). Additionally, girls may be obliged to drop out of school to help with the household tasks (Ngwira et al., 2000).

AIDS often strikes more than one parent or household member. There is frequently a clustering of illness and death that pushes the household into a downward spiral of impoverishment. The effects are influenced by systems of marriage. In matrilineal systems, which predominate in Malawi, the death of a husband leaves the wife with the children and some security of land tenure. However, if the wife dies, the man is sent away and the children have no direct parental care (OXFAM 2001: 2; Bota, et al 2001:15). The death of a man also has serious consequences for those households that are urban-based and in patrilineal marriage systems because of biased and insecure property and inheritance rights (Ngwira, 2001: 4, OXFAM 2001: 3).

Most interventions target these immediate effects. The response has been clearest by community-based and non-governmental organizations, which have taken the lead in home-based and orphan care. We return to these responses in Chapter 3.

We take up some of consequences at the meso- and macro-environmental scales in rural settings in the next chapter. It should be mentioned that there have been some efforts to assess the overall effects of AIDS on African economies. Barnett and Whiteside (2000) briefly review these and conclude that, while more sophisticated models may be developed for some countries, past and current ones have tended to include only a narrow range of readily quantifiable effects. Many of the more serious consequences are also the most uncertain. Some, such as the impact on local and

formal institutions, are likely to be non-linear - increasing in severity as prevalence rises - and cumulative. We highlight a few of these in the following chapter.

Chapter 2. *Links between Agriculture and HIV/AIDS*

Rural livelihoods, food security and the spread of HIV

That AIDS affects agricultural development and rural livelihoods is, for most professionals working in the sector, a painful reality, but not really that difficult to comprehend. Though in many ways unprecedented, AIDS is yet another of the many disasters with which the rural people of Africa are learning to cope. However the converse, that agricultural development and rural livelihoods, or their lack, may be contributing to the spread of HIV, generally proves a much harder nut to get one's teeth around.

Microbiology: malnutrition and susceptibility

The contributions of livelihoods and food security can be said to end with an individual's exposure to the virus (Fig. 1). The probability of infection is influenced at the physiological level by nutritional status: micronutrient deficiencies, for example, increase the likelihood of mother-to-child transmission (Piwoz and Preble, 2000) and may lower the resistance of epithelial tissue to penetration by HIV. To our knowledge, no work has been done on these issues in Malawi.

The microenvironment: agricultural situations of risk

More widely, agricultural activities create poles where people congregate and where sexual contacts are concentrated. These may be situations of particular risk of infection if the contacts are asymmetrical i.e. a small number of women have unprotected sex with a larger number of men, or vice versa. Epidemiological models show that such asymmetrical relationships hasten the spread of infection in a population (Garnett and Anderson, 1996). Where people move into and out of, or between situations of risk, they can contribute to widening the epidemic and raising infection rates in areas previously little touched. There would be no generalized HIV/AIDS epidemic if people did not move.

In Malawi, these poles of attraction include rural weekly markets and trading centres. In a recent survey, villagers and agricultural sector employees mentioned these places as important sites of social and sexual contact between rural and urban people, and among rural people themselves (Bota et al., 2001). Market operating times were said in some cases to favour sexual relations more than commercial ones. Respondents suggested that if markets opened and closed earlier, some of these risks could be reduced. In Mwanza, Tanzania, some local governments have already enacted such changes (D. Kasongi, ACORD, pers. comm., 2000). Marketing and financial arrangements, notably for tobacco and sugar cane, which draw farmers away from their families for extended periods, were also seen to be sources of sexual promiscuity and risk of HIV infection and transmission in rural communities.

Plantations and estates are other important poles of attraction. In Malawi, tea, coffee and tobacco are often grown by large enterprises that have high and seasonal demands for labour. In many cases, workers move on their own, sometimes coming from considerable distances. Few estates,

particularly tobacco, provide married quarters. Reports suggest a situation similar to that seen in many other countries and industries: a concentration of single men, separated from their families, monthly or longer pay intervals, and a dependent population of occasional and/or commercial sex workers from nearby villages or further afield (Bota and Malindi, pers. observation). Project Hope has been working for several years with estates, particularly in the Southern Region. Their efforts centre on improving health care provision and raising awareness and understanding about HIV/AIDS among labour and management (D. Namate and M. Simbota, pers. comm.). Ownership structures, the policy environment and the economics of these industries have been important influences on the outcome of these efforts.

The meso-environment: farming systems and livelihoods

More widely again, rural poverty, food insecurity and lack of livelihood opportunities contribute to susceptibility to HIV infection of rural people, especially young adults, in several ways:

- Poor women with few other subsistence options may resort to selling sex for gifts or money on an occasional or more continuous basis (Malawi Government 2001a). “Commercial sex work” may be an inadequate concept to cover the range of situations in which sex is bartered or sold.
- Rural women who are poor and economically dependent have limited influence on the conditions under which sex occurs, including the use of condoms. Poverty accentuates the effects of a male-dominated culture (Malawi Government, 2001a). Without the autonomy to act on it, knowledge regarding HIV/AIDS is insufficient to avoid infection.
- Young adults, both men and women, often find few opportunities to make a living where they live and are forced to move in search of work. Small farm size and natural resource depletion are often behind decisions to move. We have been unable so far to find studies from Malawi on rural movement of different durations and their distribution by source area or farming system. Work from Uganda indicates that movement, in the sense of relocation, is a risk factor for HIV infection (Decosas et al., 1995). Much of the literature in this area places emphasis on movement by single adults.
- A lack of livelihood prospects where young adults live contributes to attitudes in which the threat of death 5-10 years in the future has little weight. In such situations, people are much less likely to act on what they may know about HIV/AIDS.

There have been as yet few conscious efforts to reduce the food insecurity and lack of options that often impel people to move into or prevent them from escaping situations of risk, and fewer yet that have assessed their effectiveness. Some available evidence from southern Malawi, however, is suggestive (Box 1).

Box 1

In Zomba, the NGO YONECO has been working with youth, orphan and women's groups since 1997. The NGO has helped some 60 commercial sex workers to organize themselves, trained peer counsellors and developed livelihood opportunities with them. These include producing briquettes from waste paper and sawdust or rice husks, using manual presses. The briquettes are competing with locally collected firewood, which is becoming increasingly scarce and whose collection is said to contribute to hillside erosion. A number of the women have given up sex work and the prevalence of sexually transmitted infections – an important risk factor for HIV – has dropped by 60%. However, demand for the briquettes is still thin: a concerted marketing campaign has yet to be mounted.

MacBain Mkandawire, Project Director, *personal communication*

The action is still at an early stage and at a small scale. One would like to know much more about what actually happened, for example how important the different elements – livelihood, counselling and self-organization - have been and how they have reinforced each other. To make a significant contribution to reducing the spread of HIV, the livelihood component would have to show itself to be both economically sustainable, capable of providing substantial support to the women independently of the project, and enable them to reduce their exposure to HIV in an equally sustainable fashion.

The macro-environment: policies and programs

Finally, at the macro-environmental level, national policies of different kinds may add to or diminish the food insecurity and livelihood famine that in turn are contributing to susceptibility to HIV. Poorly managed market liberalization policies may increase insecurity among small producers when they remove what had been guaranteed markets and prices (Mataya, 2000). One cannot but wonder what impact the current high maize prices - in which both natural calamities and policy decisions have been implicated - will have on HIV incidence. On the other hand, programs like food-for-work, particularly where this is used to create genuinely useful rural infrastructure, or effective support to small-scale rural enterprises may help to diminish the spread of infection. There has to date been no systematic enumeration of relevant policies and programs and assessment of their likely effect on the spread of HIV, whether positive, negative or neutral. It bears emphasizing that decisions taken in international forums and by other governments can also contribute to the risk environment in Malawi.

AIDS, food security and rural livelihoods

Microbiology: nutrition and disease

AIDS' impacts begin at the physiological level (Fig. 5). People living with HIV/AIDS have increased nutritional requirements: up to 50% greater for protein and 15% for energy (Piwoz and Preble 2000). AIDS strains already meagre diets and pushes many into a vicious circle: failure to maintain nutritional status weakens immunity and increases susceptibility to opportunistic infections, which in turn undermine nutritional status. People suffering from AIDS-linked illness have reduced capacity to participate in productive activities.

The microenvironment: household labour supply

The quantity of labour is further affected as members of the afflicted households spend time looking after the sick and burying the dead and less time in agricultural pursuits. Other members of society are also affected, for the 'time spent at funerals, visiting the sick ...is in a way a subscription to society and thus enables the family to claim benefits in time of hardship...it is checked in the society's register' (Bota et al 2001:7). Similar trends have been observed in Uganda, Tanzania and Zambia (UNDP/FAO 1995). Traditionally, funerals ceremonies lasted 4-7days, with more 'celebrations' after one month or 40 days or a year. However, the customs are changing to shorter ceremonies and less expensive ones.

A recent study in three districts in Central Malawi (Shah et al., 2001) found impacts of chronic illness (mostly AIDS-linked in the current context) that are similar to those described elsewhere in eastern and southern Africa. The loss of adult labour leads to a suite of changes in affected households' use of land and other resources. Agricultural activities are often delayed, with negative effects on production, and land is often left fallow. Surviving household members may be under increased pressure to seek *ganyu* (agricultural labour, paid in cash or kind) or may pursue non-agricultural income generating activities that yield a quick return. In either case, labour available for on-farm work is further reduced, and less available at critical moments in the season. Affected households are also frequently forced to reduce their reliance on labour or input-intensive crop or livestock enterprises, and to focus on activities that are of reduced scale and with fewer risks, but that also have lower output or provide less income. In the Central Region, this has often meant reduced cultivation of the major cash crop, tobacco. In Uganda, the above-mentioned study found that AIDS has had a large effect on cattle-based systems.

Insecurity in rural areas, particularly as a result of theft of crops and livestock, is currently a major problem in Malawi (Malawi Government 2001), and results in reduced production and unwillingness to invest further in vulnerable agricultural enterprises. The AIDS epidemic contributes to this problem, because adults who are absent from home for long periods to nurse sick relatives in hospital cannot properly care for and guard their own fields and animals (Ngwira 2001:7).

The microenvironment: household resources

Loss of labour is not the only immediate effect of chronic illness and death. A host of expenses are incurred during the illness, at a time when income is also reduced, and the various customs surrounding funerals create further demands on a household's savings and assets. Less of these resources can then be devoted to agriculture. The decline of the public health care system in Malawi has also led people to seek health services in parallel systems and especially from traditional healers (*chipondamthengo*), whose fees can be exorbitant. At the time of death, there are expectations to spend lavishly to appease the spirits so that death is cleansed from the village. In some parts of Malawi, like Karonga, Mzimba and Rumphi, a cow is slaughtered. Sometimes small animals are needed to provide a sacrifice, *chandopa* (Bota et al 2001). The above-mentioned study in the Central Region found that a substantial number of households that had suffered a recent chronic illness and that had disposable assets were forced to sell them. Selling in distress means that the returns are meagre. Increased indebtedness was also common (Shah et al., 2001: 51-2).

The sequence of responses to illness and death – reduced production, shift to less demanding and remunerative enterprises, sale of assets, indebtedness – often misleadingly called “coping” – results for many afflicted households in deepening impoverishment. Wealthy households and larger ones

may escape some of the effects (Shah et al., 2001), however the protection is likely partial and may be only temporary. As already mentioned, important assets like land or livestock or household effects may be lost by the surviving spouse due to inheritance customs. In patrilocal systems of marriage, women cannot continue to use their spouse's property if they want to remarry or move away from the marital home. Property grabbing is also rampant (Ngwira 2001). Critical agricultural resources may thus be lost by the affected household, further deepening impoverishment.

Reduced production, consumption and income as a result of prolonged illness put household members other than the person living with HIV/AIDS at risk of malnourishment. Women in particular may be left with few means to secure their own and their family's living than to sell sex. This is one of the ways in which vulnerability to AIDS' effects and susceptibility to HIV infection are linked.

The microenvironment: attitudes and knowledge

AIDS also impacts the productive sectors by altering values. Many people who have been affected or afflicted by HIV/AIDS develop a short-term outlook. In terms of economic activities they often prefer to invest in petty trading, rather than agricultural enterprises whose returns take longer to accrue. From the perspective of a poor householder, even growing annual crops can be risky.

The children left behind when their parents die may not have acquired enough skills to perform some key agriculture and economic activities. This increases livelihood insecurity. Concurrently, children are drawn increasingly into adult responsibilities by parents or guardians and may be taken out of school, with long-term negative impact on their ability to acquire literacy-based skills. Girls are particularly vulnerable.

Whole communities are affected when teachers too drop out of school due to HIV/AIDS. Teachers are frequently absent and their morale is reduced due to the time they must spend nursing their sick relatives and burying the dead (Kadzamira et al 2001:69). Absenteeism was reported to be higher among female than male teachers since they are the customary duty bearers in times of illness. This leads to poor education quality and also low enrolment rates as the families themselves fail to send children to school, especially girls. The quality of the agriculture labour force in the shorter and longer term may thus be negatively affected. This will compromise agricultural productivity since farmers who are literate have higher productivity than those who are not.

The meso-environment: social networks

HIV/AIDS further threatens food security in rural Malawi by eroding social security networks, an important social capital. The burdens of caring for the sick and for orphans are customarily spread within communities, benefiting households that are both better and less well off (Shah et al., 2001), but as prevalence rises, these burdens may overwhelm the ability or willingness of other households to further divide their economic entitlements (Mtika, 2001). Already, one sees families that cannot take in more dependents because they have enough problems of their own. This is leading to an increase in the incidence of child-led households. Girls become increasingly vulnerable to abuse since some caretakers see them as a source of labour or as chattels to be exchanged in marriage (Ngwira et al 2000).

Very little is known about how AIDS is affecting access to and management of common property resources, such as forests, aquatic resources and grazing land. We return to this issue below.

The macro-environment: institutional resources

AIDS affects the ability of agricultural and allied institutions to provide services by depleting their human resources. First, there is attrition of staff in agricultural administration, extension and research, due to death. Second, the quality of human resources declines due to morbidity and disorientation of those left behind. It is reported that in 1998, nearly 66% of staff that died in the Ministry of Agriculture died from AIDS related illness (based on UNAIDS estimates of AIDS related mortality in urban areas, Bota et al 1999:9).

A second area where institutions are affected is the use of resources to take care of the sick, pay life insurance claims, death gratuities and the cost of burying the dead. The problem is compounded by cultural practices that require that the dead be buried in their grandparents' village. The expectation that employers will transport the dead is very high, to the extent that those who have failed to do so have had dead bodies dumped in their offices or homes.

Possible responses and the knowledge needed to make them work

There is clearly a need to respond with despatch to the large challenges posed by HIV/AIDS. There is already evidence that organizations working in research, development and extension (RD&E) in agriculture can contribute to the prevention of HIV's spread and the mitigation of AIDS' impacts. Yet it is also clear that there is a very poor base of evidence to guide action: evaluated experience is rare, studies are scattered and of small scale. Organizations getting involved in this area need to strike a balance between acting now, on the basis of what is known, and closing some of the critical gaps in understanding in order to be able to act more effectively and efficiently. It is also important to remember that HIV/AIDS is not the only force that threatens rural livelihoods and food security. What is done must take into account that there are people who are poor due to other causes. Furthermore, responses must take account of the fact that local factors are important in determining the pace at which the epidemic is developing, the magnitude of its effects and hence feasible responses. Affected households and communities have been far from passive and organizations should support their responses.

Actions likely to yield benefits in the short term

Assessing existing policies and programs It was suggested that current programs and policies might already be having unintended effects, positive or negative, on the susceptibility of rural people to HIV. These include on the first side, those that are effective in enhancing livelihood opportunities and food security and, on the second, those that inadvertently are diminishing them. Enhanced food security and livelihood opportunities would also help to mitigate the effects of AIDS. However, the groups most susceptible to HIV (often young adults, especially women) are likely to be different from those most vulnerable to AIDS (often orphans and widows in affected households). These groups are also likely to be differently endowed: the first often with surplus labour but little land, the latter often with scarce labour but (sometimes) with land that they have difficulty in using fully. What would be of benefit to the one may not be relevant to the other. These concepts are the bare bones of what might be called an "HIV/AIDS lens". It needs to be

complemented with other knowledge that exists in different organizations about HIV/AIDS and its links with agriculture, and enriched through experience.

One could then apply this lens to an organization's policies and programs, identifying those that are likely having a beneficial or detrimental effect in terms of either prevention or mitigation. The possibility of enhancing the former and reducing the latter should be assessed. Fieldwork could then follow up to confirm whether what people are experiencing is in line with the assessment. Well evaluated "program experiments" might try variations aimed at enhancing benefits.

Example: Cassava varieties that are tolerant of mosaic virus are available and are showing themselves very productive in small farm conditions in several eastern and southern African countries. Cassava is not demanding of labour or other inputs and, in principle, these varieties should be benefiting AIDS-affected households. Field assessment might look at the extent to which existing diffusion pathways serve these households and whether they reap the expected increased harvest. One could ask similar questions about ICRAF's labour-saving agroforestry technologies.

Example: Several agriculturally based employment-generating schemes are operating in this and neighbouring countries, some involving the processing of cassava for starch. Assessments could examine how far these succeed in providing sustainable employment for young adults and to what extent hazardous behaviour is thereby reduced.

Example: Different approaches to farmer training and education are being tried in the region, as old extension approaches are being abandoned. Among these are Farmer Field Schools and other less intensive group-based approaches. The extent to which groups such as children heading households are now involved and benefiting could be assessed. Pilot experiments using more appropriate curriculum and format could be conducted.

Identifying and supporting innovation in AIDS-affected farm households AIDS represents a large and widespread challenge to rural people across Malawi and neighbouring countries. Former ways of using the land and other resources cannot be maintained because conditions have changed so radically. The "new farmers" must be inventing and innovating extensively – indeed, the theory of induced innovation predicts the direction of this innovation - yet one hears only scattered accounts. A concerted effort might be made to identify farmer innovations, especially those by women and young farmers, assess them and promote the most promising. Measures to increase the incentives for innovation should also be considered. Such a program could help speed the search for workable technical and social options for this large and growing group of farmers.

Actions likely to yield benefits in the medium term

There are a number of critical areas where knowledge is lacking. Among them:

Local institutions and social organization One type of response to the difficulties that HIV/AIDS brings to those dependent on agriculture has been innovation in social organization. For example, YONECO has encouraged the formation of groups of susceptible and vulnerable people to work cooperatively, thereby reducing the risk created by intermittent labour supply and loss of skills due to death, illness or caring for the sick. Self-organization by teenage orphans has also been seen in northern Tanzania. But there is still need to find new ways of strengthening social security networks, which have been seriously threatened by HIV/AIDS. There may be opportunities for win-

win solutions between AIDS affected groups such as widows and HIV-susceptible young adults. If widows have secure access to land or other resources they cannot fully use and young adults have the time and skills to use it, then both can benefit if the terms of trade are just. This may however require new or modified institutional arrangements at the community level.

Can efforts aimed at enhancing food security and livelihood options of susceptible groups – such as what YONECO has attempted with sex workers (Box 1) - make a cost-effective and timely contribution to preventing the spread of HIV? Can we identify economically and environmentally sustainable options that allow such groups to substantially reduce their exposure to HIV? What are the conditions under which this could be done on a sufficiently broad basis to make a difference for a substantial number of people? Tapping local ideas and opportunities is likely to prove key.

Although it is well-known that HIV/AIDS affects family labour, and households respond in a way that minimizes the risk posed by this, the quantification of labour input and/or requirement in AIDS afflicted families and communities under various farming systems has not been assessed. This information would help to objectively outline the interventions that would effectively respond to the needs of such families.

There is also need to quantify the extent to which skills of various types are being lost, and thereby establish the links between AIDS, farm and non-farm enterprises. In Chiradzulu, Thyolo and Mulanje areas where rural people have little land to cultivate, their livelihood depends, to a large extent, on non-farm economic activities. The effects of AIDS on these non-farm economic activities and rural peoples' livelihood is not well documented. Such information is important since it has direct influence on farm productivity. Also the reverse needs to be investigated: does the availability of non-farm livelihoods contribute to buffering the effects of AIDS?

HIV/AIDS and property/land issues Issues of land tenure and use, and HIV/AIDS deserve a closer analysis. For instance, knowledge about marriage systems and customary land tenure system and how these influence widow's rights to land would be important for policy decisions and formulation of area-specific strategies to mitigate suffering among AIDS affected families.

Communities have also been responding by calling for reforms in the laws and customs that deal with inheritance. NGOs like WILSA (Women and the Law in Southern Africa Trust), Malawi Carer and Women's Voice have called for changes in laws that condone property grabbing. The WIA (Wills and Inheritance Act) does not reflect the changed realities due to AIDS deaths and ascendancy of nuclear families.

Little is known about the access of AIDS-affected households to common property resources that are often crucial to food security and livelihoods. Where participation in maintenance activities is a condition for access, as it sometimes is in community-managed irrigation, these labour-scarce households may not be able to access the resource. The benefits derived from the resource may be diminished for everyone if illness and death become so common that upkeep becomes a major problem.

Targeting actions at the system level

It has been suggested (Barnett and Blaikie, 1992) that people who depend on certain agricultural systems may be more vulnerable to the devastation caused by AIDS than others because of the characteristics of those systems. They suggested that pre-existing labour scarcity, the absence of low labour demanding crops and high levels of pre-existing malnutrition are indicators of such system-level vulnerability. The concept has never been rigorously tested. If predicting vulnerability is feasible, then it may offer a basis for targeting actions and improving the efficiency with which scarce resources are used.

It may also be possible to identify agricultural systems that leave people who depend on them more susceptible to HIV. Chronic un- and under-employment by the young and frequent out-migration by young adults are among the important indicators. Again, it must be assessed whether predicting system-level susceptibility is feasible. Greater efficiency in targeting actions would be the pay-off.

Other considerations

There is need for thinking systematically about long-term strategies, which take cognizance of the possible changes in the nature of the AIDS epidemic. Responses must be well assessed, taking into account the costs of carrying them out.

In all these efforts it is important to recognize that the response to HIV/AIDS is part of the response to poverty. AIDS is a tremendous impoverishing force and success in preventing HIV infection is thus also poverty prevention. But this does not mean that an action beneficial to a household impoverished by AIDS will necessarily be similarly beneficial to one whose poverty is due to another set of causes because their resource endowments and personal characteristics may be quite different. Recognizing these differences will be one of the great challenges in the response of the agricultural sector to HIV/AIDS.

To effectively mitigate the impact of HIV/AIDS on Agriculture, there is need to raise more money, as most programs are currently under-funded and cannot be expected to have significant impact. Raising money to combat AIDS is only half the problem, however. Spending it wisely, both in terms of putting it to the right programs and ensuring it is spent on what was intended is the other half. The answer to what programs should be designed to mitigate the impact of HIV/AIDS risks getting caught up in the debate over curative versus preventive services. This debate is invariably health-oriented (Economist June 30-July 6 2001:92). Curative approaches and medicines cannot be the sole solution because the majority of people cannot benefit from current drug regimens which are difficult to implement and costly. There is need to broaden the range of interventions in prevention and mitigation that can be shown effective through action research.

Programs need to deal more with getting resources to affected households so that they can protect or enhance their livelihoods. A major constraint to this is the structure of public spending which tends to have high overheads so that most resources are not spent at the front line or household level.

Chapter 3. Organizational and Institutional Responses

Responses to the HIV/AIDS epidemic can be grouped into four levels (Figs. 1 and 5): those that operate at the microbiological scale - medical and nutritional responses; at the individual and household scale; at the community and farming system scale, and finally at the level of organizations and macro-policy. Individuals, households and communities, as well as organizations, can be the agents of response. Here we only consider what formal organizations are doing, and to an extent might do, to prevent the spread and mitigate the impacts of HIV/AIDS and some of the institutional arrangements that are emerging among them.

Among the organizations we visited there was a wide difference in the types or stages of responses. There were those who have moved from recognizing the impact that HIV/AIDS has on the effectiveness of their programs, to making policies and formulating credible responses (OXAFM; ICRAF and the Extension Department Ministry of Agriculture,). There are others who are still trying to understand the implications of the situation and have yet to formulate policies for engagement e.g. ICLARM and the Research Department of the Ministry of Agriculture.

It was clear from our discussions that even those organizations that have gone the furthest in thinking through a response are constrained by a lack of ideas and practical examples to draw on. As one OXFAM staff member said, “We’re working within a narrow catchment of ideas” (N. Nyaugwa, pers. comm.). For example ICRAF wants to incorporate HIV/AIDS in its technology generation and dissemination activities but faces conceptual and methodological problems with how to target these households. This is certainly not a problem that ICRAF alone is facing. It raises again the question of how to conceptualise the response to the epidemic within the broad response to poverty. It is important that institutions link locally, regionally, and internationally to share ideas and approaches, as well as to advocate for appropriate responses.

Our discussions support the notion that there is a growing convergence of interests among organizations coming from public health and the struggle against AIDS on the one side and agriculture and rural development on the other. Organizations like NASO and Blantyre Christian Coalition which have been working with at risk and affected groups for some time have recognized that they must factor in sustainable rural and peri-urban livelihoods if their clients are to be able to avoid risky situations and to keep themselves alive. On the other hand, organizations like OXFAM, Ministry of Agriculture and Project Concern have seen that rural households are being severely buffeted by AIDS and that they must reorient their programs in consequence. Somewhat slower to develop has been the realization that nearby organizations from the “other side” likely have very useful knowledge which can help them avoid costly mistakes.

Another observation is that most responses are still at the experimental or pilot stage. There has as yet been no attempt to replicate them on a larger scale or to involve other actors, including government, in their wider implementation.

On the part of government departments, response to the HIV/AIDS situation is constrained by bureaucratic impasses and inertia. Some of the appropriate responses to HIV/AIDS would require changes in guidelines on how staff and resources are managed, and such change is slow. In some cases where innovative approaches have been tried, they have been misinterpreted as misplaced zeal, and interference in other ministries’ or departments’ responsibilities.

We emphasize that, in the time available, we visited a relatively small number of organizations, not well distributed across the country. However, the sample does provide an idea of the type and range of responses. We have grouped the organizations into four classes:

- a) Those aiming at understanding the dimensions of the epidemic through monitoring and analysing HIV's spread, and in interpreting and publicizing this information;
- b) Those undertaking efforts at national and regional or district levels to prevent the further spread of HIV;
- c) Those concerned with research into the two-way links between HIV/AIDS and agriculture systems, nutrition, rural livelihoods and social organization, both at the local level and also the impact of policies; and
- d) Organizations involved in developing and implementing measures to prevent the further spread of HIV/AIDS and mitigate its effects on nutrition, livelihoods and agriculture systems.

Category One: Those dealing with Epidemiology

1. National AIDS Control Commission, in collaboration with UNAIDS, has designated sentinel sites for mapping out and monitoring HIV prevalence situation in the country. Through these sites, the country situation has been modelled to indicate the current and future extent of the epidemic. Sexual behaviour is also being monitored.
2. The Ministry of Health, Planning Section is concerned with the epidemiology of AIDS-related diseases, such as tuberculosis.
3. The Community Health Sciences Unit of the Ministry of Health does research on the determinants and impacts of major disease. The "TB Equity" Project has a broad systemic perspective on TB epidemiology, including its livelihood impacts.
4. National Statistical Office is involved, together with international collaborators with the Demographic and Health Surveys (DHS), which are an important source of information. Recent surveys have included sections dealing with HIV/AIDS.

Category Two: Those making efforts to prevent the further spread of AIDS (from a health perspective)

1. The government through the Ministry of Health and Population through the National AIDS Control Commission has conducted studies on the prevalence of HIV and also behaviour change issues. The Malawi Poverty Reduction Strategy Paper spearheaded by Ministry of Finance and Economic Planning, has recognized HIV/AIDS as a cross cutting issue (GOM 2001:110), which impacts on all the other sectors of the economy. However plans to mainstream it in the other sectors seem to suffer lack of innovative ideas. The broad outline of a strategy to mitigate the economic and social impacts of HIV/AIDS includes activities to support those directly affected, orphans, widows, widowers and households; change legislation on inheritances; introducing less labour intensive crops, and providing food to

affected households; including a budget line item in all ministries for workplace programs and other HIV related interventions; and strengthening the HIV/AIDS response at the national level, focusing on the strengthening of the National AIDS Control Commission, and District AIDS Committees.

2. Project Hope – see entry under category 4.
3. YONECO – see entry under category 4.
4. NASO – see entry under category 4.

Category Three: Those researching the links between agriculture and AIDS

1. Department of Research Services, Ministry of Agriculture. The general impression was that agricultural research has yet to seriously consider HIV/AIDS in its research programs. This was confirmed by Dr. Thindwa and Mr. Moyo of Lunyangwa Research Station.. However, during the recent ministerial management meeting, all agriculturists were challenged by the Minister to do something about HIV/AIDS. The indication is that ideas will be floated around, although it is not yet clear how the process will be organized.
2. The International Centre for Living Aquatic Resource Management (ICLARM) started work in Malawi in 1986. Then it was a GTZ project. Now it has widened its activities, although still concentrated activities in the Southern Region. Through the department of fisheries, I can reach to other regions.

ICLARM has not responded specifically to the HIV/AIDS epidemic. However, it has a policy of how to respond to HIV/AIDS in the workplace, which specifies that there should be no discrimination against people with HIV/AIDS. ICLARM will educate its staff on HIV/AIDS, provide an enabling environment to access educational material on the disease and provide health insurance so that all staff can access expensive drugs.

Dr Jamu's perception is that HIV/AIDS issues have to be addressed in order for ICLARM to meet its objectives. In fact as a matter of procedure, ICLARM uses participatory approaches to technology development so that issues of impacts of HIV/AIDS, say, on labour, should be picked up as a matter of course. ICLARM's natural contribution would be to enhance the nutritional status of those infected by HIV through making high protein food readily available, thereby reducing its price so that poor households can afford it. However, there is no systemic and systematic response to HIV/AIDS by ICLARM.

3. At the International Centre for Research on Agroforestry (ICRAF), we interviewed Dr A. Bohringer. Since about a year, ICRAF worldwide has had a policy to respond to the HIV/AIDS epidemic. CIDA, which is a principal donor, puts a lot of emphasis on mainstreaming HIV/AIDS. A workplace policy has recently been adopted which, among other things, provides counselling to staff with HIV/AIDS and makes a commitment to non-discrimination. The policy aims to break the silence surrounding HIV/AIDS since denial and silence are seen to be a major contributor to susceptibility to HIV and vulnerability to AIDS.

ICRAF currently liaises with other organizations, which have expertise on HIV/AIDS

e.g. UNAIDS – Harare, World Vision – Malawi, CARE International, and the CIDA Regional AIDS office.

Currently there are plans to conduct studies on the impact of HIV/AIDS on adoption of agro-forestry technologies. A major problem is methodological/conceptual – how to define AIDS affected or infected households. How do you isolate impacts of HIV/AIDS from those of poverty in general?

There is a proposal to conduct an exploratory study on this issue with the Department of Economics at Chancellor College, as a stepping-stone to a bigger study. Currently ICRAF is extending studies done by graduate students in economics at University of Malawi to find out from farmers how illnesses affect willingness to adopt, and effectiveness in managing agroforestry technologies.

ICRAF now recognizes that the labour issue is even more important due to the emergence of orphan-led households, as the mesh of social security nets becomes larger, and many households fall through. The technologies that can be proffered to labour-constrained households are Tephrosia vogeli, and pigeon pea. But very seriously affected households need inputs.

ICRAF is also seeking nutrition-related options that can contribute to the management of opportunistic infections and improve the nutritional status of other members of AIDS-affected households. This is being done through homestead orchards for fruit trees. Other trees being researched have medicinal properties. On the utilization front, attempts are being made to improve the processing/preservation of fruits. ICRAF has a VSO Volunteer working with a women's group at Magomero Community Development College in Chiradzulu, near Makoka, as well as with ACTION AID on HIV/AIDS-related activities.

Category Four: Those implementing programs to prevent the spread or mitigate impact of HIV/AIDS on agriculture and livelihoods

1. Ministry of Agriculture and Irrigation. There are attempts and efforts towards developing a sector-wide policy on HIV/AIDS. This need arose from other efforts that the Ministry has so far undertaken to mainstream HIV/AIDS into its plans and operations. Such efforts started way back in 1998 with participatory development process to integrate Food Insecurity, HIV/AIDS and Land pressures issues. This was done in Chiradzulu District with two villages on a pilot basis. In 1999 UNAIDS commissioned a preliminary study on HIV/AIDS in the workplace. This was conducted in selected institutions of the Ministry. The same year, Lilongwe West Rural Development Project was involved in a pilot Rural AIDS programme for field staff and farmers. This year (2001) FAO/UNDP commissioned a study to assess the impact of HIV/AIDS on the agricultural sector. The findings of this study have been extensively quoted and cited in the preceding chapters. All these efforts prompted the Ministry to develop a policy that would guide decisions and implementation of HIV/AIDS prevention and mitigation interventions.

2. Project Hope in collaboration with the Ministry of Education, and working with Shire Bus Lines and Press Agriculture developed an HIV/AIDS Policy Paper. The policy paper is in its final stages of development and key stakeholders have already discussed it.
3. Youth Net and Counselling (YONECO), a Community Based Organisation aims to assist to youth improve their economic and social situation by providing them with necessary skills and knowledge. Viable economic options were thought to be an important ingredient to fight HIV/AIDS. It makes more sense to discuss HIV/AIDS in the context of something that people value rather than in a vacuum, according to its Executive Director, Mr. MacBain Mkandawire. YONECO's area of interest is HIV/AIDS prevention. Initially the organisation targeted youth, and later extended to street children, commercial sex workers, and community groups.

With the help of youth volunteers, the organisation brought in a number of kids from the streets. Apart from providing shelter and food, the organisation involved them in several activities important to them, such as sports. Tracing the backgrounds of these children, it was discovered that many were children of commercial sex workers. It was therefore thought that efforts to rehabilitate these children would be futile as long as their mothers continued to be sex workers. Therefore a parallel programme for commercial sex workers was developed.

With respect to Commercial Sex Workers, the organisation instituted income generating activities for commercial sex workers. One of the activities identified was making of briquettes from sawdust and waste paper. Thus, apart from earning some income for themselves, they were involved in an activity that will in the long run help in reducing environmental damage (deforestation). From Mr. Mkandawire's analysis, when adequate materials (especially paper) are available, four ladies produce as much as 250 briquettes in a day, which would earn them K500, or K125 each. It was learnt that the activity keeps the ladies busy most of the day so that they have less need to go back to the pubs. Apart from making briquettes, it was learnt that the ladies are also involved in peer counselling.

YONECO runs both urban and rural programmes. In the rural community surrounding Zomba Municipal Town, YONECO identified existing youth and community support groups and assists them mostly with agricultural production skills. It provides soft loans apart from HIV/AIDS counselling services. It was learnt that with these skills, the groups are able to produce enough food such as rice for their families with surplus for sale to meet their daily needs.

YONECO indicated a number of achievements:

1. Through the programme, some of the street children have returned to their parents and re-united with their families.
2. Within twelve months of interaction, commercial sex workers who earlier were difficult to deal with because they thought the programme was a waste of their time were now able to plan and put in their own time to do productive work such as making briquettes and doing peer counselling on HIV/AIDS.
3. Sexually Transmitted Infection rates had drastically dropped among commercial sex workers involved in the programme.

4. Food security and livelihood situation among community support group members had improved during the period of the programme.
5. Youth involved in the programme have learnt vital skills to enable them spend time away from sex and drugs.

YONECO plans to scale up and replicate what is doing at the pilot-level through radio (e.g. Story Workshop). YONECO also intends to develop partnerships with organisations and institutions that would help it with technical know-how (e.g. National Youth Council, Chinese Technical Mission, Horticultural Association, Ministry of Agriculture) and financial support. YONECO also intends to explore the idea of organic farming that could be introduced in its programmes.

4. Nkhotakota AIDS Support Organisation (NASO) is a Community Based Organisation formed with the aim of contributing to the effort of preventing transmission of HIV/AIDS. Increasing numbers of AIDS patients being referred for home care from hospitals forced NASO to introduce Home Based Care Programme. Volunteers from the community take it on to look after these patients. NASO is also involved in Counselling and Support, Orphan Care through community-based activities, HIV prevention targeting Commercial Sex Workers, and a programme for Youth.

With respect to Orphan Care, communities are asked to set up gardens for producing communal crops. Various crops are produced such as rice, maize and vegetables. The proceeds are used to take care of the orphans. NASO provides inputs for production and Agriculture staff provide technical expertise. For People Living With AIDS, NASO provides them with implements for production and encourages them to grow nutritious foods. Unfortunately, some are too weak to work. NASO's Executive Director, Mr. Tifa Ngoma, cited the case of three AIDS-afflicted families (both husband and wife in each case) that were unable to work and ended up selling the implements and inputs. Soya beans, ginger, garlic, and rice were cited as the nutritious foods being advocated for People Living With AIDS.

NASO introduced sports and agriculture in their Youth Programme to preoccupy the youth with something more productive and keep them away from drugs, alcohol and sex. Youth are engaged in production of vegetables.

5. OXFAM is an International Non-Governmental Organisation engaged in various programmes in rural development. HIV/AIDS was absent from the OXFAM agenda until last year (2000) when it was realised that HIV/AIDS was having a large impact on the implementation of the programmes. OXFAM's current focus is mainstreaming for prevention and mitigation of HIV/AIDS impacts, according to OXFAM's Programme Director, Mrs Nellie Nyang'wa. One major effort towards HIV/AIDS prevention and mitigation was the institution of a study in Mulanje to find out factors that promote spread of HIV and response mechanisms to the impacts of AIDS. Key findings of the study have been extensively quoted and cited in the preceding chapters of this paper, but some of the major highlights include the following:
 - Death of a mother had a more pronounced effect on the children because the father is told to quit the home (divorced). This results in increased incidence of teenage pregnancies and early marriage among children who have to fend for themselves.

- Young boys or girls heading their own households (usually orphans) were not participating in programme activities. This was also true for elderly people.
- It was found that repayment of seed loans in kind at the rate of 10 times the amount borrowed scared off the chronically sick from participating in the scheme.
- Communal programmes such as village nurseries were also not attractive to AIDS affected individuals and families.

This is to say that programmes were unintentionally cutting off AIDS affected and afflicted people. For this reason, OXFAM undertook the following steps:

1. Programme re-orientation so that they become more inclusive
2. Integration of HIV/AIDS messages in the programme activities
3. Supporting Youth Groups such as youth drama groups to disseminate HIV/AIDS messages
4. Changing loan procedures to make them more attractive.

OXFAM has long term need to establish communal orphan care systems, but this has not been tried. It is also willing to support its development partners such as the CCAP Church, Christian Service Committee to go through a similar process. They are also willing to support any of their partners who would propose to do something in the area of prevention and treatment, but they do not know what would work and what would not. For this reason, OXFAM is prepared to enter into partnership with specialist organisations that would assist with technical expertise. The other future need is to try and link prevention with support services, and to try and break dependency cycle in orphan care systems.

6. Blantyre Christian Centre. According to Mr. George Kukhala, Project Field Officer, the ICOCA project of the Blantyre Christian Centre mostly focuses on counselling and care. Church Volunteers counsel patients suffering from AIDS related diseases. BCC also embarked on Orphan Care Programme in which communities (discussion groups) are engaged in agricultural production. The proceeds are used to take care of the orphans, the aged and the sick. BCC provides seeds and hoes. The money realised from vegetable sales is used to re-invest in field crops.
7. Project Hope is an international Non-Governmental Organisation, which was formed to promote "Health Of all People Everywhere". Its philosophy is to help people to help themselves. The aim is to work on people's identified needs and its programmes are community-based. In Malawi, Project Hope started working with agricultural estates (tea, coffee, rubber, and tobacco) Project Hope encouraged estates to recruit qualified clinical personnel. Project Hope trained all Health Surveillance Assistants recruited by the estates.

Dr. D. Namate the Programme Manager indicated that all the projects currently running had an HIV/AIDS component. One project, the Village Health Bank, offers small-scale loans and HIV/AIDS training is conducted every fortnight as people come in to repay the loans. Project Hope also conducted HIV/AIDS training for estate labourers in Mulanje, Zomba, Dwangwa, and Nkhatabay by using drama and the Training for Transformation approach.

One constraint cited by Mrs Namate was high staff turnover in estates, which makes it difficult to realise real and lasting change.

8. Concern Universal (Dedza) is an international NGO operating in several parts of the country across all the three regions. According to Mr. Jacob Mapemba, Project Manager of Dedza Field Office, HIV/AIDS was never considered in the programmes. It was only recently that HIV/AIDS issues were seriously considered. A number of reasons were cited. One was that AIDS was affecting programme implementation because of the frequent funerals experienced in the project area. One family was said to have failed to care for seed issued by the project because of chronic illness. In the Safety Net Project funded by DFID, the beneficiary category used for issuing food and clothing was changed from 'chronically ill' to 'chronically ill and old' because there were too many chronically ill people for the project to manage.

In an effort to integrate HIV/AIDS, Concern Universal (Dedza) started learning from Save the Children Fund since they did not have experience and expertise in HIV/AIDS in their Programme. The future intention is to include HIV/AIDS assessment in their annual Income and Assets Survey. The problem cited was that information on the impact of AIDS was not available at district level.

Beyond organizations, there are also several national networks and associations that link people or organizations dealing with HIV/AIDS and that support advocacy. Some associations, like those dealing with orphans, have government backing. They include MANET (Malawi Network of People Living with HIV/AIDS) and MANASO (Malawi Network of AIDS Service Organizations). Malawian NGOs and donor organization also have their own informal networks that meet often to share ideas. At the regional level, there is the information and exchange network SFAIDS. The Southern African AIDS Training Program groups NGOs and CBOs in five countries and encourages mutual learning. Increasingly, it is emphasizing research.

Key Findings

- In many cases there is little reliable evidence to guide agricultural-linked actions that seek to prevent HIV's spread or mitigate AIDS' impacts. It is essential that future actions are well monitored and evaluated using a consistent set of indicators, that the findings are used in planning and are made widely available.
- The impact of AIDS on agricultural sector institutions is still not well quantified but has been severe. This must be stabilized if these institutions are to play their necessary role, through their "core business", in rural areas. There is need for detailed information to form the basis for personnel replacement program e.g. training and deployment.
- The tendency is for the government to leave grassroots activities to NGOs. These are the activities that can really make an impact on the quality of lives of families at risk of HIV and affected by AIDS. Government programs and policy in agriculture are still largely blind as concerns HIV/AIDS, and may be having unintended effects, beneficial and detrimental.
- Possibly the most difficult barrier for agricultural RD&E to get over so as to contribute to prevention and mitigation will be in understanding the situations of at risk and affected people, and responding accordingly. Existing technology employed in different ways will probably be

capable of meeting many of their needs. Innovation in institutional relationships, at the community level and among agricultural and health sector organizations, will be key.

- There are important opportunities for collaboration between organizations in the public health/AIDS sector and the agricultural/rural development sector. This can be seen in the convergence around common concerns at the intersection of their interests.

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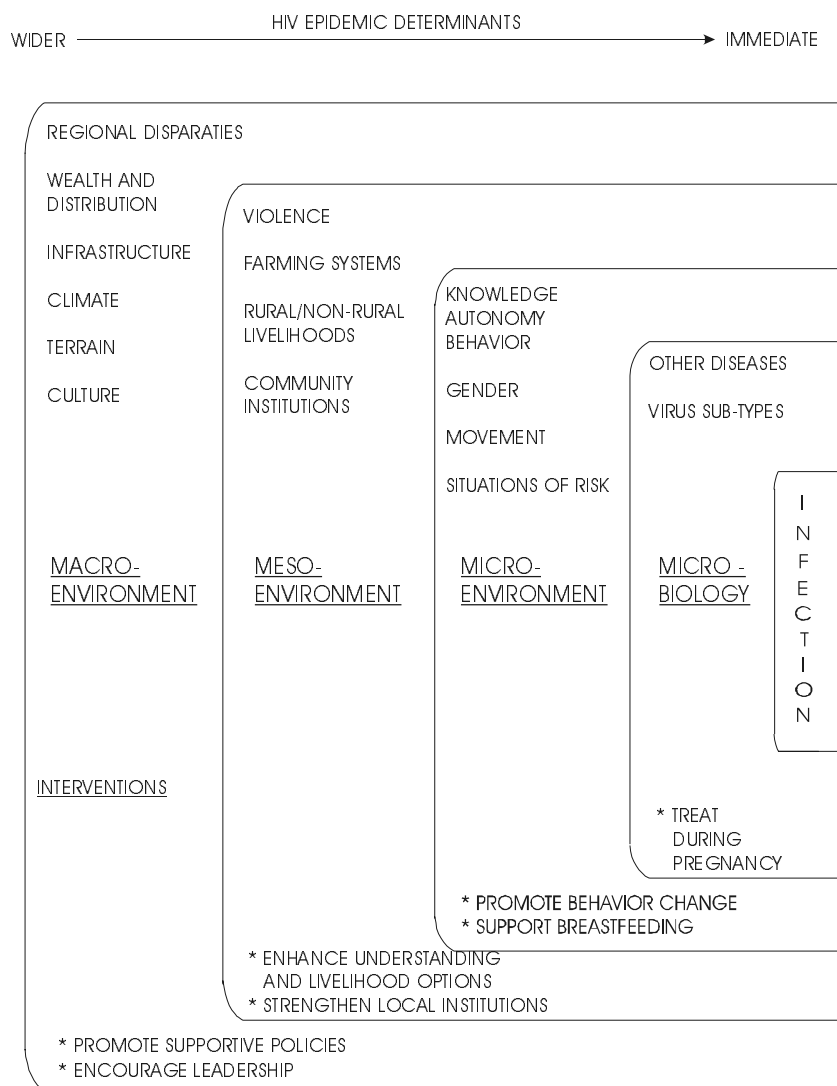


FIG. 1. The determinants of HIV epidemics (adapted from Barnett et al., 2000)

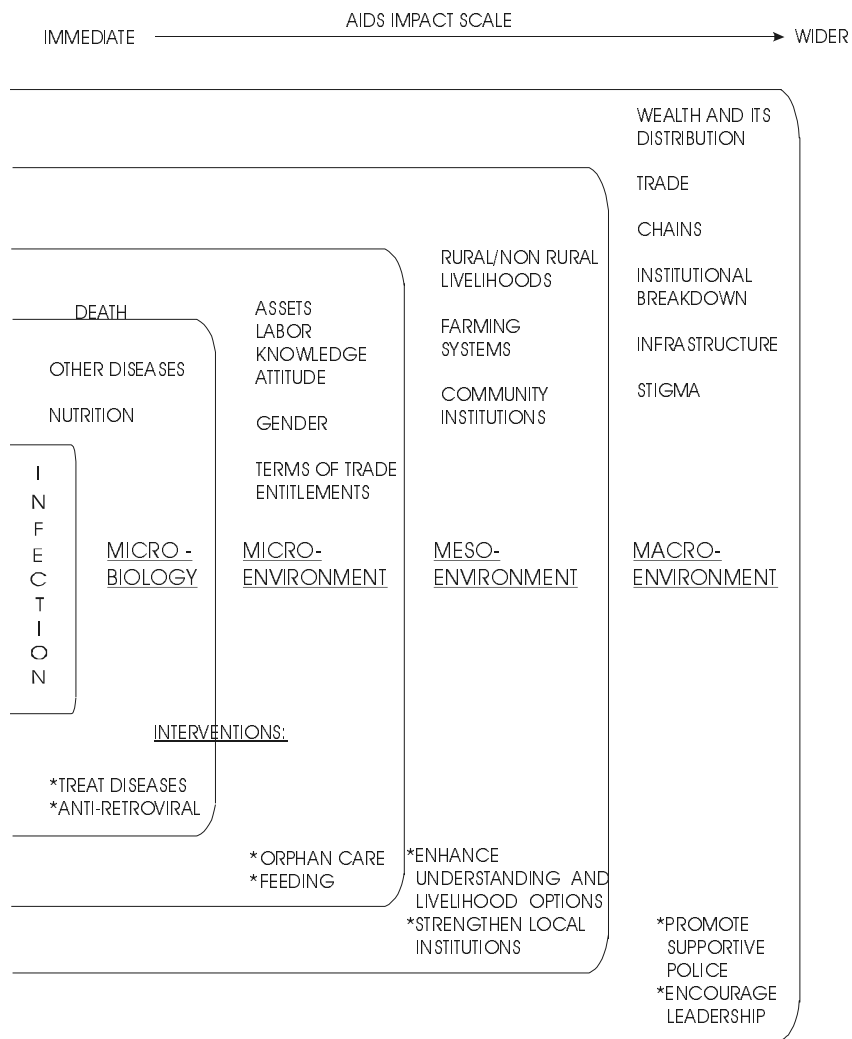


FIG. 5 The scales of AIDS' impacts