



HIV/AIDS and agriculture: **impacts and responses**

Case studies from Namibia,
Uganda and Zambia

2003

FAO recognizes that HIV/AIDS is slowly eroding food security, ravaging rural livelihoods and exacerbating poverty. If left unchecked, the epidemic risks undermining all efforts aimed at achieving the Millennium Development Goals of halting the HIV/AIDS epidemic and halving the number of poor and hungry in the world by 2015.

The Integrated Support to Sustainable Development and Food Security Programme (IP) was initiated in 1998 with funding from the Governments of Norway and Finland. In its current phase, which is funded by Norway, it has recently focused on an interdisciplinary investigation of the impacts of the HIV/AIDS pandemic on agricultural production and food security, with the goal of identifying possible response strategies for the agricultural sector.

Substantial fieldwork has been carried out with partners in Namibia, Uganda and Zambia. Case studies from these countries illustrate how the epidemic affects different aspects of rural livelihoods, and point to the implications for the policy environment. The Namibian case study demonstrates the importance of protecting property rights following the death of a spouse in the context of increasing numbers of female- and youth-headed households. In Zambia, the uneven distribution of wealth between male- and female-headed households with AIDS orphans is examined from a gender equality perspective. In Uganda, the impacts of the epidemic on households that are pursuing different livelihoods are considered in the policy context of the Plan for the Modernization of Agriculture.

As a response to the aforementioned research, a few pilot activities have been initiated. In Uganda, HIV/AIDS-responsive practices are being mainstreamed into the agricultural extension services. Pilot activities in Zambia are focusing on improving household food security and nutrition, and in Namibia, on the prevention of property grabbing or asset stripping.

FAO's Gender and Population Division (SDW) serves as the Organization's focal point for both gender and HIV/AIDS, and is responsible for coordinating the interdivisional IP programme. We are committed to following up on this innovative IP research and response strategies in collaboration with partners inside and outside FAO.

FAO hopes that this report will strengthen the knowledge base of the interlinkages among gender, HIV/AIDS and food security in rural areas and that other development partners will find the lessons informative and useful in their multi-sectoral fight against HIV/AIDS.

24 November 2003



Sissel Ekaas
Director Gender and Population Division
Chair IP Programme Implementation Task Force

Acknowledgements

Appreciation is extended, first and foremost, to the people of the rural communities in Namibia, Uganda and Zambia who actively participated in the IP surveys and without whom none of this would have been possible. We also thank the local governments, research institutions and universities who allowed their staff to assist in the collection of data that contributed towards the development of this summary report.

The IP would like to acknowledge the special efforts of the partner institutions and the national coordinators, for their patience, advice and logistical support. These are: Africa Institutional Management Services (AIMS) and Imms Namaseb in Namibia; National Agricultural Advisory Services (NAADS) and David Maweje in Uganda; and Farming System Association of Zambia (FASAZ) and Coillard Hamusimbi in Zambia. The IP also thanks the national research team leaders: Dayo Ogunmokun and Adelheid Awases in Namibia, Christopher Laker and Agnes Ssekiboobo in Uganda, and Chrispin Kapunda, Petan Hamazakaza and Coillard Hamusimbi in Zambia, for supervising the surveys, data analysis and the compilation of national reports, as well as the statisticians Atsuko Nonoyama and Daniel Daka for assisting in managing and analysing the data. We also thank the FAO Representatives and Programme Officers in Kampala, Windhoek and Lusaka for providing in-country guidance, and we express our appreciation for the technical input provided by IP's Programme Implementation Task Force (PITF) at FAO Headquarters¹.

The authors of this report, Natasha Mesko, Esther Wieggers and Vibeke Hermanrud, are hereby acknowledged for their efforts, as are the following staff members who reviewed and commented on the report: Sissel Ekaas, Marcela Villarreal, Clare Bishop, John Hourihan and John Curry.

Finally, special appreciation is due to the Government of Norway for generously providing the funds to implement the IP (GCP/INT/694/NOR).

¹ A list of PITF members is available at: www.fao.org/sd/ip/about/pitf_members.htm.

Contents

	Executive summary	1
	Introduction	2
	Methodology	3
	The national context	4
<hr/>		
	Case studies	
	Uganda: The modernization of agriculture: are HIV/AIDS affected households being left behind?	6
	Namibia: Protecting the assets of vulnerable households	10
	Zambia: HIV/AIDS, gender and orphans	14
<hr/>		
	Conclusions and recommendations	
	A complex picture: Conclusions of case studies	19
	IP: interdisciplinary and agricultural sector responses	20
	Beyond the IP at the meso and macro levels	22
	Future steps	24
	References	25
	Annex I: Summary of IP survey methodology	26

Abbreviations and acronyms

AIMS	Africa Institutional Management Services
FAO	Food and Agriculture Organization of the United Nations
FASAZ	Farming System Association of Zambia
IP	Integrated Support to Sustainable Development and Food Security Programme
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries in Uganda
MACO	Ministry of Agriculture and Cooperatives in Zambia
MAP	World Bank funded Multi-sectoral AIDS Programme
MAWRD	Ministry of Agriculture, water and Rural Development in Namibia
NAADS	National Agricultural Advisory Services
NAC	National AIDS Council
PEAP	Poverty Eradication Action Plan in Uganda
PMA	Plan for the Modernization of Agriculture
PRSP	Poverty Reduction Strategy Programme
SDW	Gender and Population Division in FAO

1 ha = 2.7 acres

1 acre = 0.404686 ha

Executive summary

In 2002, through research involving 1 889 rural households in northern Namibia, southern Zambia and around Lake Victoria in Uganda, FAO's Integrated Support to Sustainable Development and Food Security Programme (IP) explored the relationships among HIV/AIDS, gender, agricultural production, food security and rural livelihoods. These three IP partner countries differ in demographic and socio-economic characteristics, and they are at different stages in the HIV/AIDS epidemic, with only Uganda demonstrating a clear decline in HIV sentinel surveillance. These differences are reflected in the levels of impact and the appropriate response strategies to the pandemic.

Three case studies demonstrate that the HIV/AIDS pandemic has serious implications for rural agricultural production and household food security, gender concerns and the policy environment. The studies emphasize that, under conditions of increasing AIDS-induced poverty, the decreased access to productive resources for rural men and women – and increasingly children – becomes particularly important.

- ▶ The case from **Uganda** illustrates that AIDS-affected households in mixed agriculture, fisheries and pastoralist communities are becoming increasingly resource-poor and are producing less. Consequently, these households find it difficult to shift towards the goals of the Plan for the Modernization of Agriculture (PMA). Specific strategies need to be developed to enable this group of AIDS-affected poor farmers, fisherfolk and pastoralists to move beyond subsistence. Activities need to be implemented that will underwrite the risk of poor farmers investing in increased productivity or that will enable them to diversify their activities away from the agricultural sector in order to increase their purchasing power to buy food.
- ▶ In **Namibia** the survey findings show how the HIV/AIDS epidemic slowly depletes the asset base of widow-headed households owing to increasing distress sales and the dispossession of property following the death of a spouse. Even though Namibia has legislation that protects property following the death of a spouse, there is a general lack of awareness of this legislation in the communities, and the government has few resources and little capacity to enforce it.
- ▶ In **Zambia**, the AIDS-related death of people in productive age groups has led to an increase in households fostering orphans, which places an additional burden on these households. It is clear from the IP survey data that female-headed households are caring for increasing numbers of orphans with fewer resources. Poor female- and increasingly grandmother-headed households that care for orphans have very weak safety nets and few coping capacities to re-establish self-sustaining livelihoods. The responses adopted, such as the sale of productive assets and the removal of children from school, increase household poverty in the long term and thus exacerbate the “feminization” of poverty in Zambia. Current measures to alleviate poverty do not adequately address the differential impact of poverty on men and women and make insufficient provisions for the new households emerging as a result of the HIV/AIDS epidemic.

The challenge is clear. How can countries support increasing numbers of vulnerable households? What can be done to reverse the trend towards increasing destitution?

IP stakeholders identified a wide range of possible agricultural interventions as a response to the HIV/AIDS epidemic, and a few of these were selected as pilot activities to be implemented under the IP. In Uganda, efforts are focused on supporting the mainstreaming of HIV/AIDS-responsive actions into the agricultural extension services. In Namibia and, to a lesser extent in Zambia, resources still need to be directed towards bringing the epidemic under control. As a consequence, the IP pilots in these countries focus on improving household food security and nutrition and on the prevention of property grabbing.

In the policy environment, one of the difficulties in addressing HIV/AIDS is that the impacts of the epidemic affect all sectors at all levels, while most policies are formulated to achieve specific objectives. A comprehensive response that effectively mitigates the impacts of the HIV/AIDS epidemic on rural livelihoods would need to be implemented through an interdisciplinary approach at the macro, meso and micro levels. At the end of this report some general suggestions are made regarding what can be done to respond to the epidemic, including mainstreaming HIV/AIDS, developing multi-sectoral responses and social protection.

The relationship among rural poverty, food insecurity, gender and HIV/AIDS is well documented (Barnett and Whiteside, 2002; White and Robinson, 2000). The majority of rural agricultural households in sub-Saharan Africa rely predominantly on human labour to perform agricultural tasks. HIV/AIDS tends to affect the most productive age group and is characterised by repeated periods of illness, which reduce labour available for agricultural and domestic tasks and increase medical expenditure. When the affected member dies, the rural household has to meet funeral expenses and the loss of knowledge, skills and – possibly – land and property (FAO, 2002). All of these mechanisms contribute towards increasing destitution, poverty and food insecurity. The extent and severity of the impact are influenced by gender roles, relative wealth, whether periods of sickness or death coincide with peak agricultural seasons, marriage and inheritance systems, and the level of institutional support for HIV/AIDS-affected households at the community level (CARE, 2001).

The relationships among HIV/AIDS, gender, food security and rural livelihoods have been explored in detail by FAO's Integrated Support to Sustainable Development and Food Security Programme (IP) in Namibia, Zambia and Uganda, with funding from the Government of Norway. The IP is an interdivisional² programme coordinated by the Gender and Population Division (SDW) in FAO. The IP promotes integrated and collaborative approaches to sustainable development and food security, both within FAO and in partner countries. Since the programme's inception in 1998, the IP partners – the Africa Institutional Management Services (AIMS) and the Ministry of Agriculture, water and Rural Development (MAWRD) in Namibia, the National Agricultural Advisory Services (NAADS) and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) in Uganda and the Farming System Association of Zambia (FASAZ) and the Ministry of Agriculture and Cooperatives (MACO) in Zambia – have developed strong platforms for interdisciplinary collaboration and have implemented a range of activities, including action-oriented research, awareness raising, capacity building and policy support.

In 2002, the partner countries agreed to focus on HIV/AIDS and agriculture as a common theme to be explored in 2002–2003. As a first step, baseline surveys were conducted to investigate the relationship between the HIV/AIDS epidemic and rural livelihoods in selected communities of Uganda, Zambia and Namibia. Data from the surveys have been used in the participatory design of local response strategies³.

This report summarizes the results of the baseline surveys and reviews the country data, looking specifically at how policies and response strategies can affect the lives of HIV/AIDS-affected communities. Chapter 2 briefly explains the methodology and provides a glossary. Chapter 3 outlines the national context, stages of the epidemic and the current policy frameworks. The case studies presented in chapter 4 illustrate how different aspects of the epidemic affect rural livelihoods, and explores the implications for the policy environment. The Namibian case study looks at the importance of protecting property rights following the death of a spouse in the context of an increasing number of female- and youth-headed households. In Zambia, the uneven distribution of wealth between male- and female-headed households with AIDS orphans is examined, along with the consequences of gender inequality. In Uganda, the impacts of the epidemic on households that are pursuing different livelihoods are considered in light of the PMA. All case studies look briefly at national policies, particularly poverty reduction strategies, HIV/AIDS and gender policies, and consider whether they adequately reflect the new circumstances that HIV/AIDS brings. Chapter 5 looks at how to operationalize response strategies and gives examples of district-level activities implemented by IP partners.⁴

² An interdepartmental task force provides advice and technical support for the implementation of IP activities and is composed of technical staff from ten services within the Sustainable Development Department, the Agriculture Department and the Economic and Social Department of FAO. See www.fao.org/sd/ip/about/ip_management.htm.

³ The country survey reports can be found at www.fao.org/sd/ip/resources/ip_publications.htm.

⁴ Although the process of implementing policies and assessing human resources, institutional capacity and the role of the private sector is imperative in understanding the gap between policies and people, it is beyond the scope of this report.

Methodology⁵

Baseline surveys in each of the three countries were preceded by a desk study. Secondary data were reviewed to help identify data gaps and to refine the survey design. The survey comprised both a quantitative and a qualitative part. Quantitative data on the dynamics of various livelihood components were collected through structured household interviews using a recall period of five years. In-depth interviews and focus group discussions using a variety of participatory tools were used to collect qualitative information.



During a focus group discussion in Uganda, widows discussed the labour constraints they experience due to the HIV/AIDS epidemic.

The surveys were conducted in the Lake Victoria Crescent agro-ecological zone in Uganda, the Ohangwena region in Namibia, and Southern Province in Zambia. Households from six sites per country were stratified according to gender and household type, and were then randomly selected from the different strata. In Uganda and Namibia, households were stratified first according to affected and non-affected status, and second by gender. A table summarizing the steps in the baseline studies and details of the methods employed in the respective studies appears as Annex I of this report. The operational definition of affected households used by the survey includes households with at least one member between 15 and 49 years old who is chronically ill or who died as a result of HIV/AIDS or related diseases (TB and pneumonia) during the recall period (1997–2002). In Zambia, households were stratified by gender (i.e. male- and female-headed households). Owing to respondents' unwillingness to report cases of chronic illness and HIV/AIDS-related deaths in Zambia, a proxy indicator of the impact of the epidemic was used for disaggregated data analysis: i.e. caring for orphans, with orphans being defined as children up to 18 years old who have lost one or both parents through death. The final sample included 766 households in Zambia, 513 in Namibia and 610 in Uganda.

Glossary

Female-headed households: households headed by a female who is 15 years or older.

Male-headed households: households headed by a male who is 15 years or older.

Foster orphan/child: a child who is living (fostered) in a household other than that of his or her parents.

Orphan: a child up to 18 years of age who has lost one or both parents through death.

Affected female-headed households: households that are headed by a woman (either widow or single mother) and have at least one member between 15 and 49 years of age who is chronically ill and/or died as a result of HIV/AIDS or related diseases (TB and pneumonia) during the recall period (1997–2002).

Affected male-headed households: households that are headed by a man and have at least one member between 15 and 49 years of age who is chronically ill and/or died as a result of HIV/AIDS or related diseases (TB and pneumonia) during the recall period (1997–2002).

Non-affected male-headed households: households that are headed by a man and have no members between 15 and 49 years of age who are chronically ill and/or died as a result of HIV/AIDS or related disease (TB and pneumonia) during the recall period (1997–2002).

Non-affected female-headed households: households that are headed by a woman (either widow or single mother) and have no members between 15 and 49 years of age who are chronically ill and/or died as a result of HIV/AIDS or related disease (TB and pneumonia) during the recall period (1997–2002).

Male-headed households with orphans: households that are headed by a man and take care of their own orphaned children (i.e. mother died) and/or foster orphaned children, e.g. from relatives.

Female-headed households with orphans: households that are headed by a woman and take care of their own orphaned children (i.e. father died) and/or foster orphaned children, e.g. from relatives.

Male-headed households without orphans: households that are headed by a man and in which both the husband and wife are alive and no orphans/children from outside the household are being fostered. No extra burden is placed on these households in comparison with male-headed households with orphans.

Female-headed households without orphans: households headed by a single woman and in which no orphans/children from outside the household are being fostered.

The national context

The three IP partner countries differ in demographic and socio-economic characteristics (Table 1). Namibia has a small population with high per capita gross domestic product (GDP), but also the highest national income inequality in the world (UNDP, 2003). In all three countries, agriculture contributes a significant proportion of GDP and employs at least half of the population, the majority of whom are living in rural areas.

Table1: Selected national characteristics, 2001

	Uganda	Namibia	Zambia
Total population (millions) (2001)*	24.2	1.9	10.6
population < 15 years (%)*	50	43	46
agricultural population (%)*****	78	48	67
Gross national product (US\$) (billions) (2001)*	5.7	3.1	3.7
Gross domestic product per capita (US\$) (2001)*	249	1730 ¹	354
Agriculture contribution to gross domestic product (%) (2001)***	37.3	11.8	22.3
Human development rank (175 countries) (2001)* (human development index)*	147 (0.489)	124 (0.627)	163 (0.386)
Life expectancy at birth (years) (2001)*	44.7	47.4	33.4
HIV/AIDS prevalence rate (15-49 years) (%)**	5	22	19
Estimated number of AIDS orphans (2001)**** (AIDS orphans as % of total orphans 0-14 years)****	884,000 (51.1)	47,000 (48.5)	572,000 (65.4)

* UNDP Human Development Report 2002

**UNAIDS Epidemiological update 2002

***** FAO 2001

*** World Bank World Development Indicators Database 2001

**** UNAIDS, UNICEF, USAID 2002, Children on the Brink

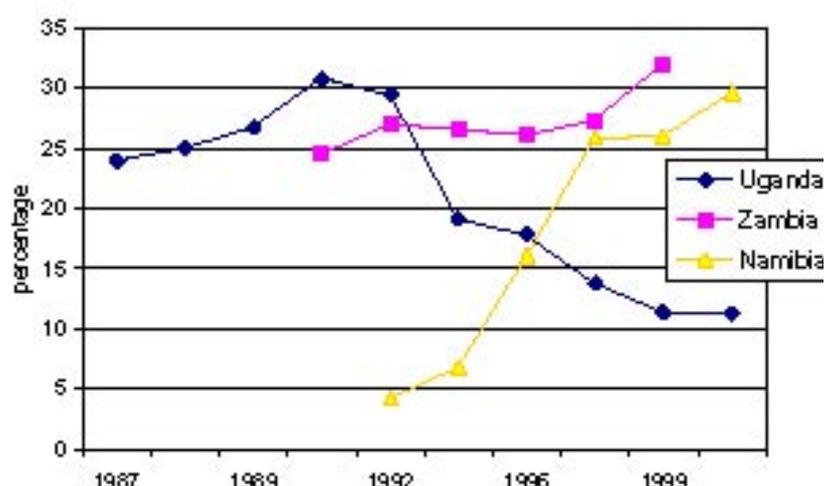
Stages of the epidemic

Uganda, Namibia and Zambia are at different stages of the HIV/AIDS epidemic. The stage of the epidemic determines the level of impact it will have on people's lives and the appropriate response strategies. HIV prevalence rates are commonly calculated using anonymous testing of samples of pregnant women attending antenatal clinics. While these antenatal clinic sentinel surveys are quite reliable for monitoring trends in HIV prevalence, this type of data is not an accurate indicator of changes in HIV prevalence levels (UNAIDS/UNICEF/WHO, 2002). Uganda is the only country that has demonstrated a clear decline in HIV prevalence rates using sentinel surveillance data. No such trend can be seen for surveillance data in Namibia or Zambia (Figure 1).

UNAIDS data indicate that in Zambia young adults have the highest rates of HIV infection, which peaks in the 20–29 years age group for women and the 30–39 years age group for men. However, there is encouraging evidence that infection rates are falling among adolescents of 15–19 years, and the incidence of new infections may be stabilizing. A similar pattern is observed in Namibia, with rates of HIV infection in 2000 peaking in the 25–29 years age group for women, and a very slight indication that infection rates in the 15–19 years age group are levelling off (UNAIDS, 2002).

To date, there is still no cure for HIV/AIDS. Anti-retroviral drugs can prolong life, but are only available for a minority. In sub-Saharan Africa, only an estimated 50 000 people had

Figure 1: HIV sentinel surveillance for pregnant women for Uganda, Namibia, Zambia



Source: UNAIDS, UNICEF, WHO. 2002. Epidemiological fact sheets on HIV/AIDS and sexually transmitted infections. Update.

access to anti-retroviral treatment at the end of 2002, representing approximately 1 percent of the 4.1 million people in need (UNAIDS, 2003). This picture may change in the near future if rollout programmes are able to reach a significant proportion of rural populations, with funding from the World Bank's Multi-Country HIV/AIDS Programme and the Global Fund.

Trends on the HIV prevalence curve are followed a few years later by similar patterns on the AIDS death curve. Figure 1 indicates that all three countries, at one time, reached quite high levels of HIV prevalence (approximately 30 percent), which means that at least this number of AIDS deaths is expected to occur typically within a seven- to ten-year time lag. By 2001, the estimated numbers of AIDS orphans were 884 000 in Uganda, 47 000 in Namibia and 572 000 in Zambia (Table 1). The epidemic has a protracted impact on a country's economy and future development.

National policy environment

The most relevant development planning instruments for addressing HIV/AIDS and its impacts on rural livelihoods in poor countries are national poverty-reduction strategies and plans, HIV/AIDS policies, and policies promoting the advancement of women and gender equality. One of the difficulties in addressing HIV/AIDS in the policy environment is that the impacts of the epidemic affect all sectors at all levels, while most policies are formulated to achieve specific objectives. For example, agricultural sector strategies tend to prioritize national and household food security, while fiscal policies emphasize economic development and poverty reduction. However, there is an encouraging trend towards the multi-sectoral design of poverty-reduction strategies and plans and, in particular, of national HIV/AIDS strategies.

Namibia is committed to addressing poverty, and drafted a National Poverty Reduction Action Plan in 2001. Poverty is regarded as a cross-cutting phenomenon, requiring a multi-disciplinary response, participation and the mainstreaming of gender. Agricultural diversification is recognized as a key strategy in addressing rural poverty. HIV/AIDS is not addressed directly in the poverty reduction action plan. However, the disease is recognized as one of the greatest health challenges to the Namibian population, which experiences considerable social and economic costs resulting from HIV/AIDS-related losses of labour productivity. A multi-sectoral committee was set up to facilitate development of the second National Strategic Plan on HIV/AIDS 1999–2004 (RoN, 1999), which obliges all sectors to budget, initiate and integrate activities that address HIV/AIDS within their sectoral plans. The agricultural and rural development sector, however, has so far not identified agriculture-specific mitigation responses, and its current interventions are limited to information and education on HIV risk reduction.

In Uganda, the National Strategic Framework for HIV/AIDS (2000/2001–2005/2006) incorporates HIV/AIDS-related issues in the broad context of national development and in relation to other national policies. It emphasizes the need to integrate HIV/AIDS activities into all ministries and government sector initiatives. Uganda also embarked on a World Bank-funded Multi-Sectoral AIDS Programme in 2001 (UNAIDS, 2002). There are currently 47 HIV/AIDS policies covering 34 HIV/AIDS-related issues in Uganda (Okuonai, Karamagi and Kyomuhendo, 2003), including the Uganda Vision 2025 and the National Health Policy. Most sectors are implementing activities more or less in line with the key priority areas of the National Strategic Framework for HIV/AIDS, but according to an evaluation of HIV/AIDS policies, this effort could have been better co-ordinated (*ibid*).

In 2000, the Government of Zambia began to develop a Poverty Reduction Strategy Programme (PRSP), which identifies agriculture as one of the key sectors for economic growth. The agriculture contribution to the PRSP is the Agriculture Commercialization Programme, which has been designed to promote the development of an efficient, competitive and sustainable agricultural sector. The Ministry of Agriculture and Cooperatives recognizes that the unanticipated loss of progressive farmers and extension staff to HIV/AIDS, the reduction in the availability of farm labour and the increased money spent on attending the sick are seriously undermining efforts to develop a sustainable and viable agricultural sector that ensures food security and generates income. Nevertheless, agriculture-specific mitigation responses have not been included in the Agriculture Commercialization Programme of Zambia. The National AIDS Council (NAC) was established in 2002 to coordinate the actions of all segments of government and civil society against HIV/AIDS. Following a consultative process, a multi-sectoral National Strategic Framework has been developed and is being coordinated by NAC. The overall goal of the framework is to mitigate and reduce new infections and the socio-economic impact of HIV/AIDS, with the main focus on prevention.

The modernization of agriculture: are HIV/AIDS-affected households being left behind?



Case study: Uganda

“Despite Uganda’s efforts to reduce HIV/AIDS prevalence in the last ten years, and the introduction of anti-retroviral drugs on the market, the disease is greatly affecting the agricultural sector [...] there is a close link between HIV, poverty, poor nutrition and household food and livelihood insecurity, which is directly undermining government’s efforts in realizing the economic empowerment of rural people.”

Dr Kisamba-Mugerwa, Agriculture Minister, Uganda
IP/FAO workshop March 2003

Introduction

It is becoming increasingly evident that the impacts of the HIV/AIDS epidemic are undermining development initiatives. The data from the IP survey conducted in Uganda provide information on the impacts of the epidemic on the lives of rural people and demonstrate that widening inequalities are preventing resource-poor groups from participating in development initiatives, in particular the Plan for the Modernization of Agriculture (PMA).

Modernization of agriculture

The Government of Uganda has embarked on a broad strategy of poverty reduction, outlined in the Poverty Eradication Action Plan (PEAP), which aims to reduce absolute poverty to 10 percent by 2017 (GoU, 2000). The PMA is a sector programme under the PEAP, which represents a strategic and operational framework for improving the livelihoods of poor subsistence farmers⁶ through market-led strategies (PMA, 2002). More specifically, it aims to:

- ▶ increase income and improve the quality of life of poor subsistence farmers through increased productivity and an increased share of marketed production;
- ▶ improve household food security through the market rather than by emphasizing self-sufficiency.

Under the PMA, the National Agricultural Advisory Services (NAADS) is mandated to coordinate the provision of decentralized advisory services, both public and private, to subsistence farmers. Local government remains responsible for implementation and delivery of agricultural services, alongside the private sector.

The PMA is not the only strategy to target the small farmer in the agricultural sector. An HIV/AIDS policy for the agricultural sector is being developed by the Ministry of Agriculture, Animal Industries and Fisheries and its agencies (the National Agricultural Research Organization, the Uganda Coffee Development Authority, the Cotton Development Organization and NAADS). Guidelines for mainstreaming HIV/AIDS into all ministry programmes will be developed, as well as training guides on HIV/AIDS for field extension workers (Okuonai, Karamagi and Kyomuhendo, 2003). These initiatives could provide an opportunity for better representation of the needs of small farmers, fisherfolk and pastoralists who are affected by HIV/AIDS.

Different livelihoods, different impacts?

The vulnerability of a production system depends on a combination of factors, but both a wide asset base and opportunities to diversify activities assist in protecting a household against external shocks, such as HIV/AIDS. Results from the IP survey demonstrated that livelihood groups’ different responses to the additional medical and funeral costs associated with HIV/AIDS were determined by their asset base and respective livelihood strategies.

Characteristics of the survey sample

610 households were sampled from six sites in the Lake Victoria Crescent agro-ecological zone. Of the total sample, 31 percent of households were considered “affected” by HIV/AIDS. Of all the “affected” households, 64 percent were headed by men and 36 percent by women (Table 2).

Table 2: Sampled households (n = 610)

	Non-affected	Affected
Mixed agriculture		
- Male-headed	276	81
- Female-headed	66	48
Fisheries		
- Male-headed	26	23
- Female-headed	6	14
Pastoralist		
- Male-headed	36	16
- Female-headed	12	6

The sampled sites represented three different rural livelihood systems – mixed agriculture, fisheries and pastoralist. The major crops grown in the mixed agriculture sites included coffee, banana, maize, beans, cassava, sweet potatoes, tea and groundnuts.



⁶ Primary target beneficiaries for the PMA are small subsistence farmers (70 percent), followed by semi-commercial (25 percent) and commercial farmers (5 percent).

Table 3: Sources of affected households' expenditure for burial and medical costs in 2002 (percentages)

	Mixed	Fisheries	Pastoralist
Household income	64	93	50
Loans	3	0	0
Assistance from extended family	65	77	39
Sale of assets	12	10	83
grains	11	-	-
land	9	-	-
small livestock	6	-	13
cattle	-	-	88

Affected households in **mixed-agriculture communities** reported that burial costs were met through a combination of assistance from the extended family and income obtained from selling grain and fuelwood, brewing beer or finding employment (Table 3). Occasionally, small livestock and cattle would be sold. Households sell land only as a last resort. There was evidence that affected households were three times as likely to sell land as non-affected ones were. Competing cash needs,

limited income and decreased asset wealth prevented households from investing in agricultural production, and among all households affected by HIV/AIDS the following could be observed:

- a proportional decrease in the amount of money spent on farm equipment and agricultural inputs;
- reduced uptake of recommended agronomic practices, such as row and line spacing, appropriate depths, compost and manure making;
- the storage and use of seed for sowing rather than the purchase of costly high-yielding varieties;
- infrequent hire of tractors for preparing land.



Women selling homemade honey at NAADS' stand at the Iganga Agricultural Trade Show in July 2003

In **pastoralist communities**, 88 percent of HIV/AIDS-affected households sold cattle to cover medical or funeral expenses following the death of a household member. One in five affected households, compared with one in 25 non-affected ones, reported reduced sales of milk compared with five years ago, probably because these households had fewer cattle. With a declining resource base, nearly half of the affected households (47 percent) had at least one member leaving the community in search of paid work or for (early) marriage, compared with 29 percent of non-affected households.

The **fisheries communities**, with more than 50 percent of households considered "affected" by the epidemic, were harder hit by HIV/AIDS than the other livelihood systems surveyed. Fisherfolk are considered at "high-risk" of contracting HIV as they are young,⁷ have mobile lifestyles and irregular settlement patterns and are paid in cash. Proportionally

more affected than non-affected fisheries households reported that they had reduced their annual catch between 1997 and 2002. Qualitative information indicated that sick fisherfolk were shifting to less labour-intensive techniques, such as shallow-water fishing instead of sailing to deep waters, where there is more fish. Sick fisherfolk were reducing the time spent night fishing, and were spending less time on maintaining fishing boats, nets and other equipment. Fishing is a highly skilled profession, especially in deep waters, and as more fisherfolk became sick, fisheries communities were losing their knowledge related to the forecast of seasons, the movement of fish shoals and safety in the water. Respondents reported that more accidents had been observed on the lake in the past few years.

Onshore fish processing activities were also changing. Women were choosing to sun dry fish instead of smoking them. Although sun drying demands less labour, sun-dried fish has a lower market value than salted or smoked fish. In the study area, an increasing number of women had inherited boats and fishing equipment. They hired male casual labourers to operate the boats, and younger children for activities such as scaring birds and loading trucks.

⁷ IP data show that household heads' average age in the fisheries communities was lower than in the other livelihood systems.

The majority of households in fisheries communities earn a living from activities associated with fishing, such as buying and selling fish, catching fish and processing fish. There are few other employment opportunities at landing sites. Crop production is very limited as most households do not own land. With fewer livelihood diversification options, more affected households (14 percent) relied on working as casual labourers for fisherfolk as a source of income, compared with non-affected ones (6 percent). Casual labourers' income fluctuates during the year according to the fishing season and the number of other labourers available. Access to, and availability of, food depend on a household's ability to purchase it, so times of income insecurity are also times of food insecurity.

Reduction in area owned and cultivated

In mixed agriculture communities, male-headed households had approximately 1.5 times more land than female-headed ones. Affected female-headed households had the smallest landholding and cultivated the smallest area per capita (Figure 2).

With their increasing numbers of dependants and growing domestic and agricultural workloads, households affected by HIV/AIDS cultivated less land. This was particularly evident in affected female-headed households, which cultivated a total of only 1.3 acres, compared with affected male-headed households cultivating a total of 2.5 acres.

A majority of affected households reported that they had decreased the average area cultivated in the past five years owing to labour constraints. On average, affected male-headed households had reduced the cultivated area by 11 percent (0.3 acre), while affected female-headed households had reduced it by 26 percent (0.5 acre). Over the past five years, affected female-headed households reported an average reduction in landholding of 11 percent (0.3 acre), which was owing to distress sale and the loss of land to relatives following the death of a spouse.

Changing cropping patterns

A general trend emerging from the IP survey was that mixed agriculture households affected by HIV/AIDS were reducing the land under cultivation and leaving more land fallow, resulting in reduced output. Yields were further affected by the inability to purchase agricultural inputs and by the proportionally less time available for preparing and tending fields.

Data from the survey demonstrated that affected households had reduced the area under cultivation for all crops, whereas non-affected households were able to increase the cultivation of maize and groundnut (Figure 3). The government has actively encouraged farmers to grow maize, as there is a market for this crop. It is clear that households affected by HIV/AIDS were less able to plant maize and respond to this initiative than non-affected ones were.

Conclusion

Households affected by HIV/AIDS, in particular those headed by women, are finding it increasingly difficult to meet their food security needs. In mixed agriculture communities, many small farmers rely on humans as their principal source of farm-power, and labour shortages are a fundamental constraint towards

Figure 2: Average landholding and area cultivated per household member, by different household types in 2002

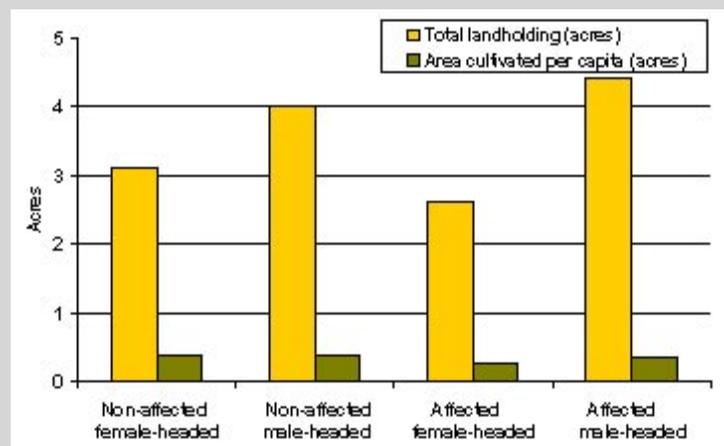
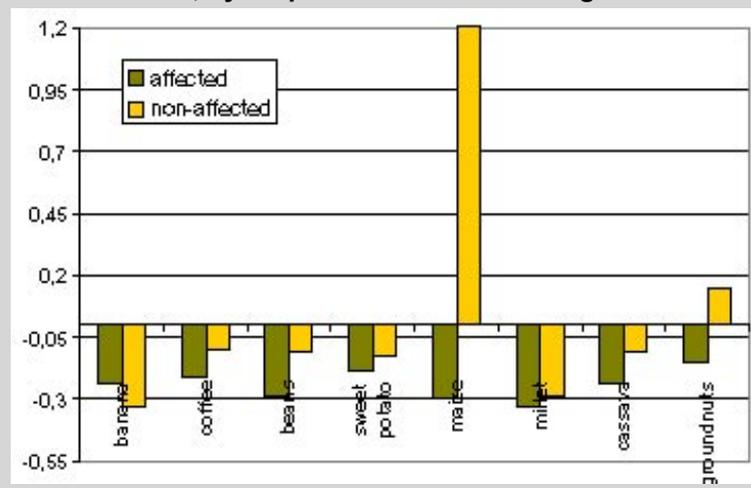


Figure 3: Percentage change in areas cultivated between 1997 and 2002, by crops and household categories



increasing agricultural production. AIDS-affected households have fewer resources and find it difficult to buy additional inputs, such as fertilizer and pesticide, which further reduces agricultural productivity. For the majority of these farmers, low inputs result in low outputs.

This case study illustrates that households affected by HIV/AIDS in pastoralist and fisheries communities are selling assets to cover increasing expenditure. With fewer cattle and less fishing equipment, these households were also finding it difficult to increase or even to maintain their production.

The PMA and NAADS both recognize that the HIV/AIDS epidemic can undermine agricultural and economic productivity (PMA, 2002; NAADS, 2001). The PMA identifies a number of vulnerable groups to be targeted, such as widows and female-headed households, which include HIV/AIDS-affected households.⁸ However, specific strategies to mitigate the impacts of HIV/AIDS on poor, rural farmers are absent. This case study provides evidence that AIDS-affected households in mixed agriculture, fisheries and pastoralist communities are becoming increasingly resource-poor and are producing less; consequently, these households will find it difficult to shift towards the modernization goals of the PMA. Specific strategies need to be developed to enable this group to move beyond subsistence production. Activities need to be implemented that underwrite the risk to poor farmers who invest in increased productivity or that enable them to diversify their activities away from the agricultural sector in order to increase their purchasing power to buy food.



⁸ PMA defines the most vulnerable groups as: i) women; ii) widows and female-headed households; iii) male youth; iv) households with large families; and v) people who are dependent on a relatively vulnerable source of income, such as fisherfolk, nomads and small-scale farmers who rely on growing only one low-value crop for sale.

Protecting the assets of vulnerable households

Introduction

In many countries, households sell livestock and grain to cover HIV/AIDS-related medical expenses and funerals, leaving fewer resources to support the livelihoods of its members. Moreover, following the death of a male spouse, a widow may lose access to property, which results in further impoverishment.

This case study looks briefly at global property and inheritance rights and reflects on Namibian policies relevant to the protection of assets. The survey findings illustrate how the HIV/AIDS epidemic slowly depletes households' asset base owing to increasing distress sales. They also highlight how the dispossession of assets following the death of a spouse increases the vulnerability of widow-headed households.

Property and inheritance rights

In many parts of the world, widows and daughters receive a smaller share of their deceased spouse's or parent's property than do widowers and sons. In May 2003, the Human Rights Commission adopted a resolution on women's equal ownership of, access to and control over land and on their equal rights to own property and adequate housing (CHR, 2003). The African Charter on Human and People's Rights also requires that all rights be implemented in a non-discriminatory way (OAU, 1981: Article 14). Equality in inheritance rights is not stated explicitly in any international treaties, but the 42nd Commission on the Advancement of Women adopted resolution 42/1, which urges countries to design and revise laws to ensure that women are accorded full and equal rights to own land and other property, including the right to inheritance (CSW, 1998). Often, inheritance rights for widows do not reflect the principles of equal ownership of property acquired during marriage, and such provisions contravene the convention (HRW, 2003).

In Namibia, the Married Persons Equality Act of 1996 states that, on the death of a spouse, both men and women are entitled to assets accumulated through marriage. The act provides for equality between spouses in financial transactions, marital property and the guardianship of children. In 1997, the Committee on the Elimination of Discrimination Against Women (CEDAW) reviewed this act and noted that women in Namibia continue to face persistent discrimination arising from customary laws. A general lack of knowledge of human and legal rights was an obstacle to implementation (CEDAW, 1997).

Property depletion

In Northern Namibia, cattle are a sign of status and represent stores of wealth. The ceremonial value of cattle is also important as they are slaughtered at weddings and funerals (FAO, 2000). Although smaller livestock such as goats, pigs and chickens have less commercial and social value, they are easier to buy, sell and slaughter, and represent smaller investments. Hence they are also an important asset.

There was little difference in the incidence of livestock ownership between affected and non-affected households, but the gender differences are more apparent. In the IP survey area, more male-headed households owned cattle (52 percent non-affected, 60 percent affected) than female-headed ones (25 percent non-affected, 32 percent affected), but female-headed households owned more chickens (Table 5).

Case study: Namibia

Characteristics of the survey sample

513 households were sampled from three rural districts in the Ohangwena Region in Northern Namibia (Table 4). Of the total sample, 38 percent of households were considered affected. 69 percent of affected households were headed by women and 31 percent by men.

Table 4: Sampled households (n = 513)

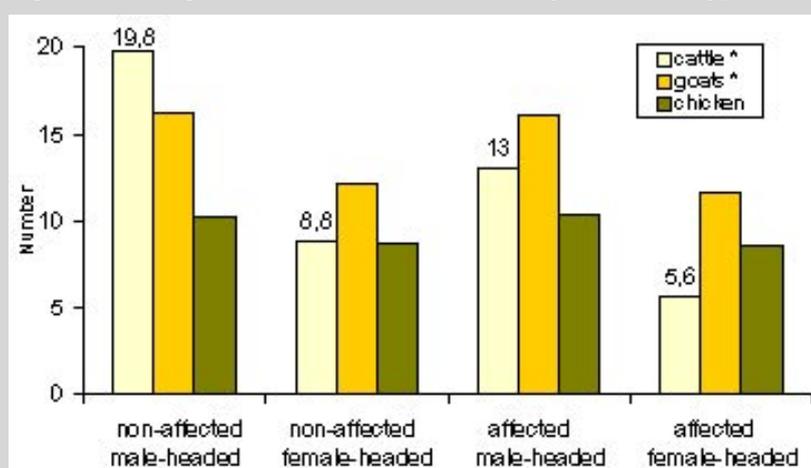
	Male-headed	Female-headed
Non-affected	178	141
Affected	60	134

Ohangwena is one of the poorest regions in Namibia (ORMT, 2002), and its HIV/AIDS prevalence rate is above the Namibian average (NACOP/MOHSS, 2002). In Ohangwena, the proportion of female-headed households is also higher than the national average.⁹ The majority of the population are subsistence farmers with mixed agriculture systems. Agricultural production in Namibia is characterized by low output owing to poor soil, erratic rainfall and drought.



⁹ The gender ratio (number of males per 100 females) in Ohangwena is 83.5; nationally it is 95.0 (RoN, 2002).

Figure 4: Average number of livestock owned by household type in 2002



* Relationship between household type and number of cattle and goats is significant at $p < .05$

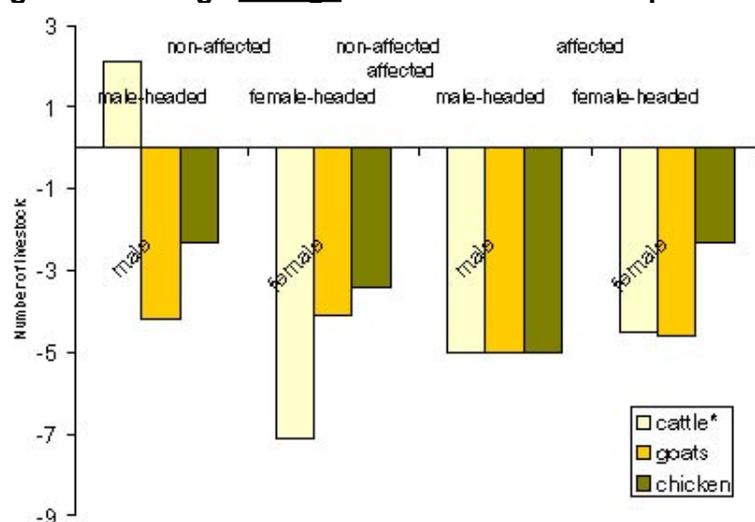
Of those households that owned livestock, male-headed households owned significantly more livestock than female-headed ones, and therefore had greater “stores of wealth”. Affected female-headed households owned less livestock than all other household categories (Figure 4).

Table 5: Livestock ownership by household type in 2002 (percentages)

	Cattle	Goats	Chicken	Pigs
Non-affected				
Male-headed	52	66	79	30
Female-headed	25	62	90	36
Affected				
Male-headed	60	80	77	28
Female-headed	32	62	85	31

More than 50 percent of those owning livestock reported a reduction in the numbers held between 1997 and 2002 (Figure 5). It is interesting to note that non-affected female-headed households lost proportionally more cattle than all other household types. However, these households currently owned more cattle than affected female-headed households. Only non-affected male-headed households increased the number of livestock owned in the past five years (+2 cattle).

Figure 5: Average change in livestock ownership from 1997 to 2002 by household type



* Relationship between household type and number of cattle is significant at $p < .05$

The loss of livestock over the past five years can be explained by a combination of factors. First, drought is a chronic phenomenon in northern Namibia, and all households reported the death, sale or consumption of livestock. The 2001 drought was particularly acute. The IP survey found that non-affected male-headed households were the only household type able to absorb the additional impacts of the drought. In contrast, households affected by the HIV/AIDS epidemic were experiencing increasingly difficult conditions during this five-year period, with the loss of productive household labour and increasing costs resulting in the distress sale of livestock, particularly cattle, to cover expenses.

Property repossession

An additional reason for large losses of cattle from female-headed households could be the repossession of family assets following the death of a spouse. Although quantitative data on this were difficult to obtain, the IP survey included a number of in-depth interviews with widows, widowers and traditional leaders. During discussions it emerged that in Ohangwena Region there is a conceptual difference between the property that was given by both families to formalize marriage (“inherited property”) and property that the couple accumulated during their married life (“common property”). The latter is often sold during times of hardship, for example to pay for hospital fees and funeral expenses. “Inherited property” acquired before marriage is only sold as a last resort. Inheritance disputes are often about who “owns” property that came via a spouse. In practice, all movable items such as cattle, kitchen and farm equipment are taken by relatives, regardless of whether they are considered inherited or common property. The IP team did not come across any cases of land being taken.¹⁰

Concrete evidence of “property grabbing” was difficult to obtain, as systems of customary law are complex and context-specific, and this is a highly sensitive subject to discuss. It became clear that there is not a common interpretation of how marital property should be inherited, and decisions tend to be made by village headmen on a case-by-case basis. Few people knew of a legal assistance centre operating in a neighbouring district or of services provided specifically to address these types of issues. There was a fatalistic attitude towards property dispossession, and a number of respondents attributed the increase in the incidence of asset stripping to increasing poverty.



This residence belongs to a 48 years old widow. Shortly after her husband had passed away, she experienced that his family “grabbed” everything from livestock to equipment in her kitchen. She had to take up a loan to pay for the funeral costs, since she had no assets left and no available savings. Fortunately she is still working as a teacher and can provide for the six younger members of the household.

Households headed by widows or youth

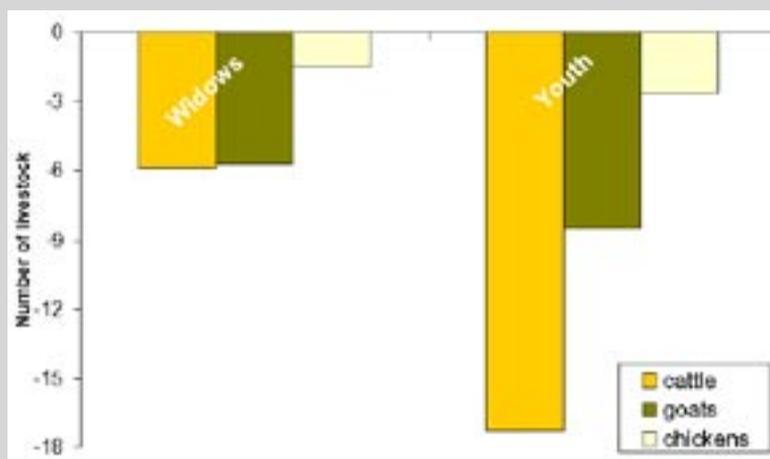
Of the sample surveyed, 32 households had lost husbands in the past five years to HIV/AIDS-related illness, and 18 households were headed by youth who had lost both parents. Following the death of a male spouse, 44 percent of widows lost cattle, 28 percent small livestock and 41 percent lost farm equipment to their husband’s family. The heaviest asset loss was borne by youth-headed households (Figure 6).

Case study: 51-year-old widow living with ten children

Lavinia’s husband died in May 2002. After her husband died, his sister came with her children and took most of the property, including goats, cattle, oxen, a donkey and a plough. At the time, Lavinia did not complain; she felt helpless. Her house was not taken, but the headman is asking

her to pay the equivalent of US\$80 to keep the house. Fortunately, Lavinia’s sister-in-law did not take her hand hoe, so she is still able to work on the farm. Lavinia’s biggest problem is finding the money to pay for annual school fees, which amount to approximately US\$50 per child. Lavinia has little support from her extended family as her brothers died in exile. She has one male cousin who has few resources to help her, but he is also experiencing problems in paying school fees for his own children.

Figure 6: Average change in livestock ownership from 1997 to 2002 for widow- and youth-headed households



¹⁰ Studies on women’s land rights in Southern and Eastern Africa indicate that in some countries land is re-possessed following the death of a male spouse (FAO/

Conclusion

This case study illustrated the heightened inability of HIV/AIDS-affected households to cope with the shocks to which all rural households are subjected. Nearly all households in the study currently own less small livestock than they did five years ago. Their small livestock died or were sold or consumed. Large livestock such as cattle represent large stores of wealth, and are only sold or slaughtered as a last resort in times of need. However, the survey data show that households affected by HIV/AIDS sold more cattle in the past five years than not-affected households did, presumably to cover expenses associated with HIV/AIDS. It is interesting to note that female-headed households that were not affected by the HIV/AIDS epidemic also lost cattle; a proportion of this “loss” could be attributed to the repossession of property following a husband’s death by other causes. Widows whose husband had died from AIDS-related causes had livestock taken by relatives, needed to sell and slaughter livestock to cover increasing expenses and were left with few resources.

Legislation against “property grabbing” exists in Namibia, but there is a general lack of awareness of the Married Persons Equality Act. Furthermore, the government has few resources and little capacity to implement the act. Consequently, local customs and inheritance practices are widespread, leaving female-headed households with very little on which to build a livelihood.

HIV/AIDS, gender and orphans



Case study: Zambia

“HIV/AIDS is devastating Zambian society. Tens of thousands of people have already died and many, many more are infected [...] one of the tragic consequences is a very rapid rise in the numbers of orphans, as well as households headed by children and elderly grandparents”.

James Morris, UN Secretary General’s Special Envoy for the Humanitarian Crisis in Southern Africa
Special Envoy’s mission to Zambia (WFP, 13/09/2002)

Introduction

In Zambia, more than 70 percent of the population fall below the poverty line; 90 percent of these people are women (MoH, 2002). According to the 1998 Living Conditions Survey, more female-headed than male-headed households face extreme poverty. Women and youth in Zambia represent 70 percent of the agricultural labour force, but have access to few productive assets and are marginalized in decision-making processes at the household and community levels. These gender and age differentials become more acute when productive resources are scarce, thus making female-headed and – increasingly – youth-headed households the most vulnerable of the poor (FAO/SDW, 2003).

In Zambia, the national HIV prevalence among women of 15–24 years ranges from 17 to 25 percent, whereas the range for men in the same age cohort is 6 to 10 percent (UoC, 2003). The HIV/AIDS pandemic had orphaned 600 000 children by 2000, and this number is projected to reach 974 000 by 2014 (TNDP, 2002). Most orphans are being fostered by the extended family, but approximately 6 percent

end up living on the streets and less than 1 percent in orphanages. Within the extended family, grandparents with few sources of income are left to care for young orphans. Using IP survey data, this case study examined households caring for AIDS orphans, particularly female- and grandmother-headed households, and the imbalance in ownership of, and access to, productive resources. It looks briefly at whether the Zambian National Gender Policy reflects and adequately addresses the needs of these emerging household types.

Feminization of rural poverty in Zambia

- ▶ 83 percent of the people in rural areas are poor, compared with 56 percent in urban areas.
- ▶ 77 percent of all people in female-headed households are poor, compared with 72 percent in male-headed households.
- ▶ Female-headed households are more likely to be extremely poor than male-headed ones are.
- ▶ 61 percent of female-headed households face food shortages, compared with 52 percent of male-headed ones.
- ▶ Female-headed households report longer episodes of food shortage.
- ▶ 54 percent of children in female-headed households are stunted, compared with 49 percent in male-headed ones.

Central Statistics Office. Living Conditions Survey (1998)

The national gender policy framework

Zambia has a good institutional and legal framework for gender equality. The Gender and Development Division is located in the Cabinet Office, and is responsible for coordinating implementation of the National Gender Policy through an institutional structure of gender focal points within sector ministries, as well as Development Coordinating Committees that facilitate the implementation of the policy at the district and provincial levels (GoZ, 2002).

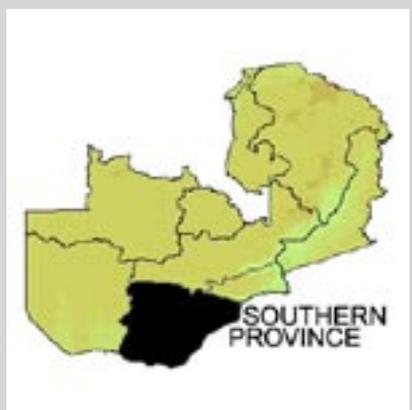
Characteristics of the survey sample

766 households were sampled from Choma, Monze and Sinazongwe districts in Southern Province, Zambia. Data analysis was disaggregated by gender and according to whether or not a household was “caring for AIDS orphans”, i.e. children up to 18 years old who have lost one or both parents through death (Table 6). Out of the total randomly selected sample, 31 percent were caring for orphans.

Table 6: Sampled households (n = 766)

	Male-headed	Female-headed
With orphans	142	95
Without orphans	388	141

The Southern Province is one of the most important in terms of agricultural production. Along with Copperbelt and Lusaka provinces, it is one of the hardest hit by HIV/AIDS. The most recent population-based estimate puts HIV/AIDS prevalence for Southern province at 17.6 percent (ZDHS, 2002).



The National Gender Policy (2000) streamlines gender into development activities and specifically:

- enhances access to and control over opportunities in economic structures, policies and means of production;
- develops specific strategies regarding men's and women's access to and control over land;
- promotes and facilitates women's and men's access to information and economic resources;
- eliminates gender imbalances in access to and opportunities for financial resources;
- enhances women's and men's participation in employment and income-generating activities;
- enhances men's and women's participation in decision-making processes.

Despite the framework, Zambia's Poverty Reduction Strategy states that there is an absence of in-depth gender analysis in the policy, and adequate human, physical and financial resources have yet to be committed. Measures to alleviate poverty have not fully addressed the differential impacts of poverty on men and women, nor have they tried to target gender-specific constraints. Gender-disaggregated data tend not to be used in the assessments of programmes, and the 2002 national budget did not disaggregate resource allocations or incentives by gender (GoZ, 2002).

HIV/AIDS and emerging households

The AIDS pandemic has left many orphans, most of whom are absorbed into the extended family. In the IP survey, about one-third (31 percent) of all households were caring for orphans; 45 percent of these households were fostering the orphaned children of relatives (Table 7).

Table 7: Orphan caring patterns for male- and female-headed households (n = 237)

	Percentage
Male-headed	
Wife deceased, caring for own orphaned children	54
Wife deceased, caring for own orphaned children AND fostering orphans from relatives (i.e. "double orphan burden")	11
Wife still living, fostering orphans from relatives OR grandparents fostering orphans from relatives (e.g. orphaned grandchildren)	35
Female-headed	
Husband deceased, caring for own orphaned children	59
Husband deceased, caring for own orphaned children AND fostering orphans from relatives (i.e. "double orphan burden")	14
Grandmother fostering orphans (e.g. orphaned grandchildren)	27

In Zambian society in general, it is most usual for orphans to be cared for by grandmothers. In the absence of grandparents, orphans are fostered by an elder relative of the extended family, usually a better-off male-headed household (FAO/DCI, 2003). In the IP sample, 26 of the 105 households fostering orphans from relatives were headed by grandmothers. This trend is confirmed by the significantly higher average age of the household head in female-headed households with orphans (49 years) than in male-headed households with orphans (41 years). Female-headed households not only tend to take care of more children, but they also take in younger orphans than male-headed households (Table 8). Consequently, female-headed households with orphans have fewer economically active household members (reflected by a higher dependency ratio), and thus experience greater labour shortages compared with male-headed households caring for orphans.

Table 8: Selected characteristics of male- and female-headed households caring for orphans

	Households with orphans	
	Male-headed	Female-headed
Average age of household head (years)*	41	49
Average number of extra children to support (fostered orphans)	1.4	1.7
Average age of fostered orphans (years)*	9.5	7.9
Proportion of economically active (15–64 years) household members (%)	50	43
Dependency ratio**	106	136

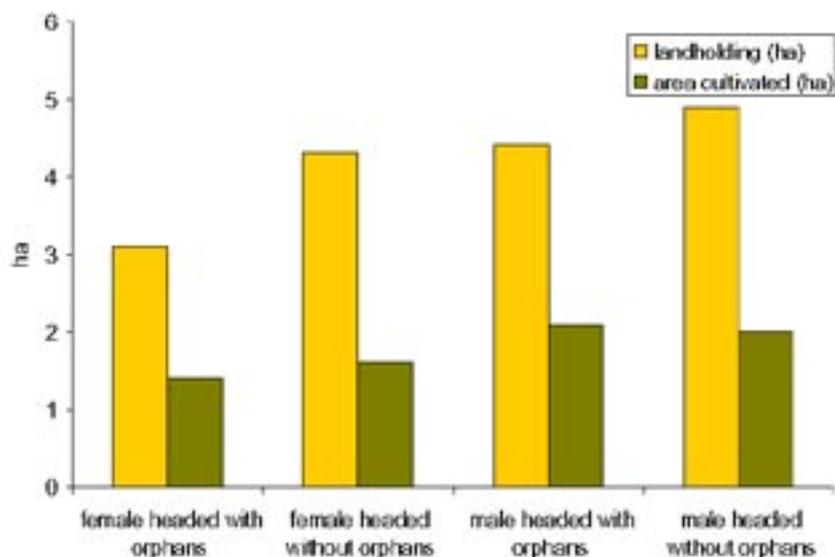
* Significant at $p < .05$

** Dependents (15 < and > 65+)/producers (15–64)*100

Gender inequality: caring for orphans

Households headed by widows and grandmothers are caring for greater numbers of AIDS orphans and are characterized by the ownership of few productive assets. Throughout the sample, female-headed households, particularly those caring for orphans, had less access to land for agricultural production than male-headed households did. Moreover, female-headed households with orphans cultivated smaller proportions of land than their male counterparts, primarily owing to a shortage of household labour (Figure 7).

Figure 7: Average landholding and cultivated area by household type in 2002



In rural communities in general, and in the Southern Province in particular, livestock represent reserves of asset wealth. This physical wealth can be sold or exchanged in times of need. Female-headed households have fewer livestock and small ruminants than their male-headed counterparts (Figure 8). Consequently, they have fewer financial resources with which to buy agricultural inputs, pay school fees, purchase household consumables and so on. During the five-year period preceding the survey, 41 percent of female-headed households with orphans lost all their cattle and 47 percent lost all their pigs. The loss of cattle and pigs was attributed to distress sales and property dispossession following the death of a spouse.

Female-headed households also owned less farm equipment, such as ploughs and carts, which further reduced efficiency (Figure 9). The main reason reported for reduced ownership of farm equipment was sale to cover medical bills, school fees and food purchases (63 percent).



Figure 8: Average livestock ownership by household type in 2002

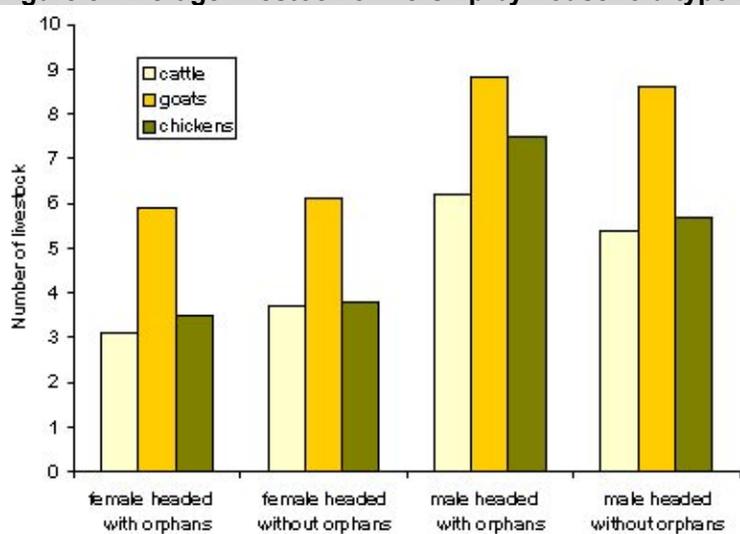
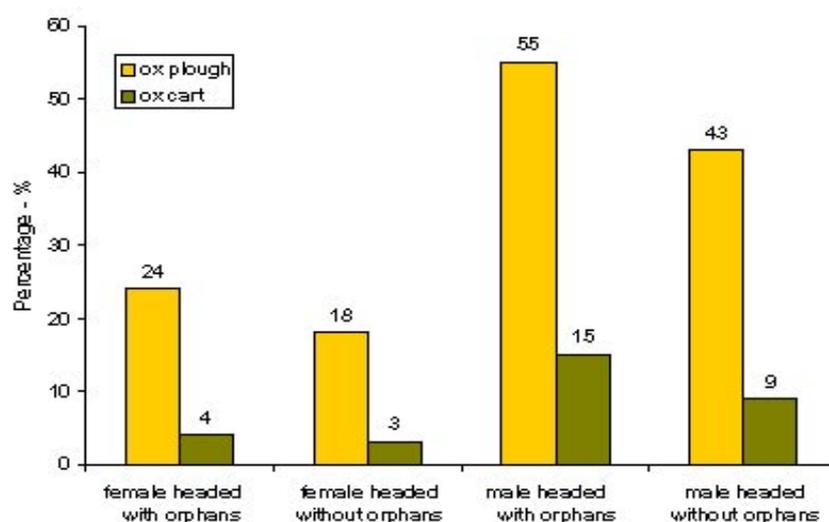
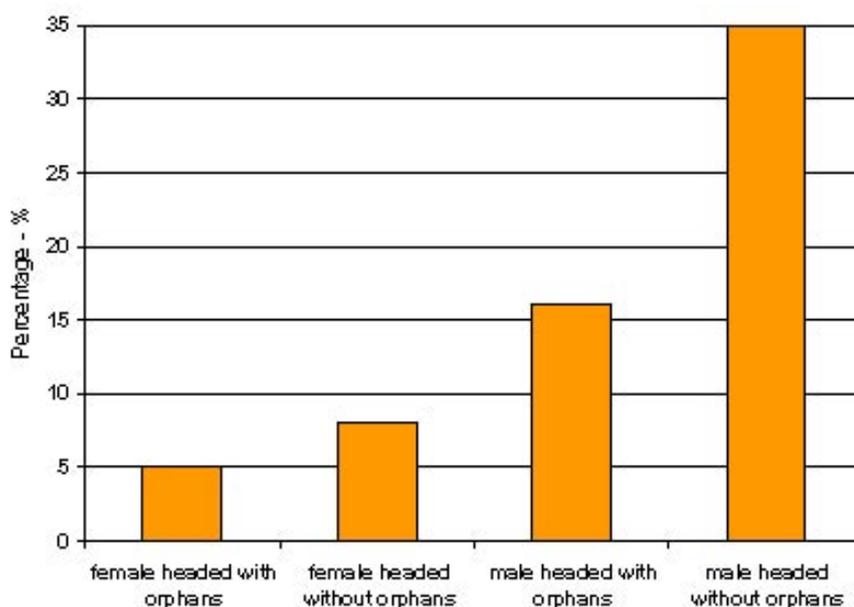


Figure 9: Proportion of different household types owning farm equipment in 2002 (percentage)



In addition to differential ownership of and access to productive assets, female-headed households, particularly grandmother-headed ones looking after orphans, have few income sources to support their household members. Despite the National Gender Policy promoting women’s participation in employment and income-generating activities, female-headed households participate little in the economic sector (Figure 10). Consequently, children in these households leave school, as the opportunity costs of sending children to school increase and households do not have enough financial resources to cover school expenses. Female-headed households with orphans are more than twice as likely to withdraw children of 7 to 13 years from school than the other household types are.

Figure 10: Proportion of household members working in large farms, industries and mines, by household type in 2002 (percentage)



Conclusion

The AIDS-related death of people in productive age groups has led to an increase in households fostering orphans, which places an additional burden on these households. It is clear from the IP survey data that female-headed households are caring for increasing numbers of orphans with fewer resources. Poor female-, and increasingly grandmother-headed, households that care for orphans have very few coping capacities to re-establish self-sustaining livelihoods. The responses adopted, such as the sale of productive assets and the removal of children from school, increase household poverty in the long term, and thus exacerbate the “feminization” of poverty in Zambia.

Current measures to alleviate poverty do not adequately address the differential impact of poverty on men and women, as stated in the Poverty Reduction Strategy of Zambia. They also make insufficient provisions for the AIDS-poor households that are emerging as a result of the epidemic. Given the high projections for numbers of AIDS orphans in the near future, there is a critical need for increased commitment to gender equality and for the linking of current gender and HIV/AIDS policies in Zambia.



Selling vegetables and dried fish at the market

Conclusions and recommendations

This final chapter draws together the main conclusions from the case studies, discusses follow-up initiatives under the IP, and makes general recommendations on how to respond to the epidemic, such as mainstreaming HIV/AIDS, developing multi-sectoral responses and introducing social protection.

The case studies illustrate the gap between the epidemic's impacts on rural people's lives and the policy responses that take place at the national level, which include agriculture, gender, HIV/AIDS and the legal protection of property. Clearly, more needs to be done to close this gap and foster an enabling policy environment. The challenge is clear. How can countries support increasing numbers of vulnerable households? What can be done to reverse the trend towards increasing destitution? What can be done to maintain the agricultural and rural sectors intact? In order to achieve a holistic and consolidated approach to solving these issues, a comprehensive and collaborative response that effectively mitigates the impacts of the HIV/AIDS epidemic on rural livelihoods needs to be implemented at the macro, meso and micro levels (Figure 11).

Figure 11: Interdisciplinary responses to the epidemic



A complex picture: conclusions of case studies

Agriculture provides a livelihood for a vast majority of the rural population through small-scale agricultural activities that are short-term, seasonal and poorly rewarding. HIV/AIDS-related illness and death bring additional costs associated with decreased household labour and increasing health care expenditure. These lessen the already meagre return to households, lead to a slow depletion of asset-based wealth and fundamentally affect long-term food security.

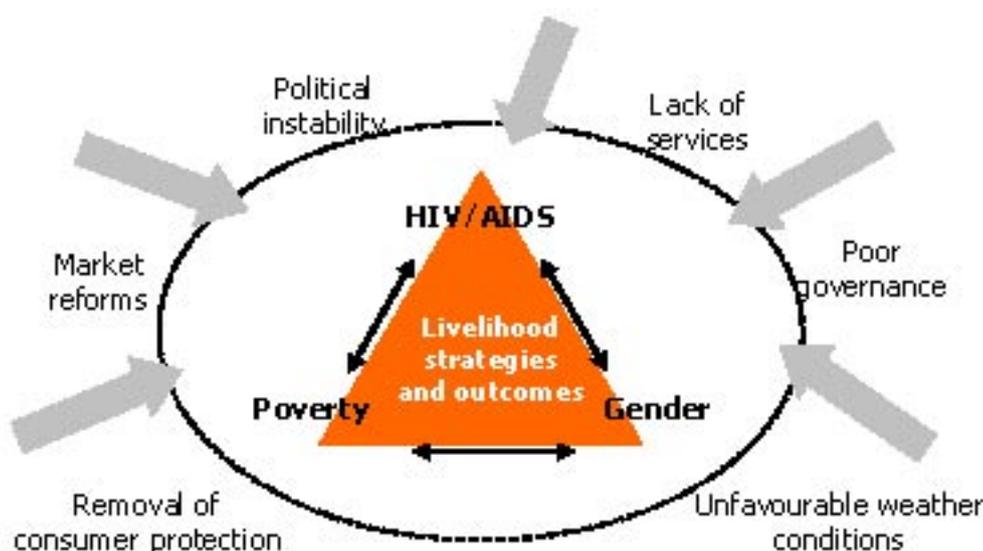
The three case studies demonstrate that the impacts of the HIV/AIDS epidemic go beyond rural agricultural production. Under conditions of increasing AIDS-induced poverty, access to resources becomes increasingly important; inequalities in access to inherited property, for example, further marginalize AIDS-affected households. This marginalization means that many households are not “picked-up” by national processes of reform, such as the Plan for the Modernization of Agriculture.

A complex picture is beginning to emerge and demands a comprehensive assessment of the nature of the

HIV/AIDS epidemic. The stage and pattern of the epidemic within a country need to be examined. An epidemic that has stabilized, such as in Uganda, will have different impacts and demand different responses from one that is spreading rapidly (e.g. Namibia or Zambia). Other factors influencing poverty also need to be taken into account, as the impacts of the HIV/AIDS epidemic emerge over a long period of time and interact with other processes that can increase vulnerability.

FAO recognizes that HIV/AIDS is interwoven with many other determinants of food insecurity and poverty (Figure 12) (FAO, 2003). The current food-related crisis in Southern Africa, for example, is the culmination of a number of factors including policy mistakes, mismanagement and poor governance, inappropriate market reforms, a lack of extension and other support services for farmers, the removal of consumer protection, and political instability, in addition to unfavourable weather conditions and HIV/AIDS (Morris, 2002). Gender roles and relations influence the course and impact of the HIV/AIDS epidemic. Gender-related factors shape the extent to which men, women, boys and girls are vulnerable to HIV infection, the ways in which AIDS affects them, and the kinds of responses that are feasible in different communities and societies (UNGASS, 2001).

Figure 12: The context of HIV/AIDS' impact on livelihood strategies and outcomes



A household's wealth and livelihood strategies will largely determine how well it reacts to external shocks, such as drought, floods and fluctuations in market prices. HIV/AIDS contributes to the vulnerability of rural households by weakening their asset base. In addition to wealth, social mechanisms, such as gender inequality, affect access to resources and services, all of which affect livelihood outcomes. The complexity of the situation makes it difficult to measure the impact that is attributable to HIV/AIDS. A United Nations Regional Inter-Agency Coordination Support Office (RIACSO) consultation was held recently to address this issue and to exchange ideas on measuring vulnerability in the light of the HIV/AIDS epidemic. A number of organizations are currently working on developing more sensitive indicators to be used at the national and household levels, which will assist in designing a more effective response.

IP: interdisciplinary and agricultural sector responses

National stakeholder workshops reviewed the results of the baseline surveys and identified a range of response strategies. Feedback meetings at the district and community levels, involving local government, civil society organizations, faith-based organizations, traditional leaders and extension workers, gave further direction to priority areas. These participatory processes ensure the representation of local needs and ownership of the products.

IP stakeholders identified a wide range of possible interventions to respond to the HIV/AIDS epidemic. These include the promotion of labour-saving technologies, improving nutrition, encouraging labour pooling arrangements, reinforcing community-based mechanisms to preserve local knowledge, and diversifying livelihoods. A few of these were selected as pilot activities to be implemented under the IP – different activities were selected for each of the three countries. In Uganda follow-up activities focus

on supporting the mainstreaming of HIV/AIDS into the agricultural extension services. In Namibia and, to a lesser extent, Zambia, resources are still directed towards bringing the epidemic under control. As a consequence, the IP activities in these countries focus on improving household food security and nutrition and preventing property grabbing. These are discussed in more detail below.

Extension workers' role in addressing HIV/AIDS

As HIV/AIDS becomes more prevalent in communities, the traditional household structure changes. The predominance of male-headed households gives way to one in which many households are headed by single parents, elderly grandparents, older children and the physically weak. Thus, the clientele for agricultural extension changes from predominantly male farmers to female, young and elderly farmers. At the same time, extension organizations and their staffs are being affected by increased AIDS-related attrition (Qamar, 2001). The challenge for agricultural extension strategies is to target new clients with decreasing human resources. One strategy could focus on developing the awareness of existing extension workers and building their capacity, so that they are better equipped to deal with the complexities that HIV/AIDS brings. This would require a revision of the existing extension training curriculum to reflect better HIV/AIDS' impacts and possible responses related to agricultural production and food security.

In Uganda, the IP is developing an HIV/AIDS resource guide for agricultural extension and community workers and conducting capacity building workshops at the district level. The guide can be used during training and as reference material while working with communities. It provides:

- a clear picture of the dynamics of HIV/AIDS in different agricultural production systems;
- practical skills for assessing and analysing the nature of HIV/AIDS' impact on vulnerable groups;
- practical guidelines for working with communities to develop appropriate response strategies for HIV/AIDS-affected households, for example, related to nutrition, labour-saving technologies, community mobilization;
- useful resources and ideas that can be adapted.

HIV/AIDS and agricultural messages

Messages about HIV/AIDS focus on control and prevention of the disease. To date, little information has been developed on the links between HIV/AIDS and agriculture. An IP study, conducted in Uganda in 2001 found that the most effective vehicles for disseminating messages are the radio and the community worker, partly owing to the accessibility of these media and the preference for hearing messages by "word of mouth" (IP, MAAIF, 2001). Extension workers also considered delivering messages as part of their professional role.

In Zambia and Uganda, the IP is designing and delivering pilot communication campaigns. Appropriate multimedia messages will be designed to suggest practical ways in which communities can address some of the impacts of HIV/AIDS on agricultural production. Messages are designed by local communities and facilitated by a multi-sectoral team. Specific groups are targeted and messages are communicated through a variety of media, from radio to community theatre, and by extension workers using visual materials.

Improving household food security and nutrition

Household food security is an essential component of any HIV/AIDS strategy. A well-balanced diet should be an integral part of the care of people living with HIV/AIDS. Actions to promote better nutrition through on-farm processing and the utilization of indigenous crops should be encouraged. Home gardening should also be promoted as it can assist in providing a wider variety of foodstuffs. In addition, school gardening can play a role in ensuring that agricultural skills and knowledge are passed on to youth. Schools can also teach the importance of healthy eating.

In Zambia and Namibia, local ministries of health and agriculture are collaborating on activities to build extension and home-based care workers' capacity to support the food security needs of households affected by HIV/AIDS. The manual *Living well with HIV/AIDS* (FAO, WHO, 2002) and local recipe books are being adapted to the local context and are providing the basis for inter-active training and guidelines. Appropriate messages are also being developed and disseminated by a wide range of media.

Protecting the property of the most vulnerable

It has become increasingly important to design or revise existing laws and to enforce laws that ensure women are accorded full and equal rights to own land and other property, including the right to inheritance. In some countries, legislation has been passed providing women with equal inheritance rights to land when their

husbands die. While this is an important legal precedent, the enforcement of the law over local customary practices is equally critical. In this regard, the capacity of local officials needs to be supported so that they are able to negotiate this delicate process.

In Namibia, the IP is collaborating with the Ministry of Women's Affairs and Child Welfare and the Legal Assistance Centre to implement a pilot project that addresses asset stripping in Ohangwena Province. The centre has several years of experience in the legal litigation regarding property, and the ministry is committed to enforcing the Married Persons Equality Act. This project is sensitizing and training local leaders and ministry staff, and para-legal training in the use of appropriate materials on the rights of women, orphans and vulnerable children is being provided for community-based support workers. Training material on property stripping has been adapted and translated into local languages. A national advocacy campaign on mitigating property stripping will be launched prior to a national conference in 2004.

Beyond the IP at the meso and macro levels

General lessons learned from the IP are related to two processes that have received much attention recently: mainstreaming HIV/AIDS and developing multi-sectoral responses. The rest of this section will look briefly at these two responses and at another mechanism – social protection – which is designed specifically



Grandmother with her grandchildren in Zambia

to support vulnerable groups.

Multi-sectoral collaboration

Multi-sectoral collaboration has become a prerequisite for the effective addressing of HIV/AIDS. Many of the global initiatives to address HIV/AIDS require countries to have multi-sectoral national AIDS committees. Implementing multi-sectoral activities is a challenging process, and some of the key elements for success are outlined in the box below. Country HIV/AIDS programmes used to be based in the Ministry of Health, whereas the new multi-sectoral committees often have a different institutional home. This creates the risk of duplicating activities if good coordination is not maintained. Moreover, multi-sectoral initiatives may exist at the national level, but not at the level of implementation.

Multi-sectoral collaboration

Multi-sectoral collaboration is actively promoted as a strategy for addressing HIV/AIDS comprehensively. For multi-sectoral initiatives to work in practice, the IP identified the following elements as essential (IP, Mueller and Wieggers, 2002):

- ▶ a clear vision and clarification of the primary roles and responsibilities of different sectors;
- ▶ clear benefits from participation;
- ▶ sufficient resources and adequate time;
- ▶ support from high-level management;
- ▶ agreement on the institutional home for multi-sectoral initiatives.

Mainstreaming HIV/AIDS

Mainstreaming is designed to create an enabling policy and resource environment. Mainstreaming should ensure that HIV/AIDS priorities become an integral part of the development agenda and that the response to HIV/AIDS becomes institutionalized. HIV/AIDS should feature prominently in the resource allocations of the Ministry of Finance and/or Planning and should be linked to activities and targets (UNDP, 2002). In the mainstreaming process, policies are reviewed to assess how sensitive they are to the impacts of the epidemic, to review existing strategies and to design additional activities if necessary. If policies and programmes already address the needs of vulnerable groups, then mainstreaming merely reorients them.

Mainstreaming steps

These steps can be followed for the mainstreaming of gender, HIV/AIDS or the concerns of vulnerable groups.

Step 1: Ensure that the impacts of the HIV/AIDS epidemic on rural livelihoods and poverty are thoroughly understood.

Step 2: Identify the internal impacts of the HIV/AIDS epidemic on the organization (e.g. ministry and/or departments).

Step 3: Identify how HIV/AIDS will affect the key goals of the organization.

Step 4: Identify how the organization can play a key role in reducing the spread of the epidemic. This step could include building capacity to review existing policies and programmes in order to identify what elements need to be revised.

Step 5: Identify how the organization can assist in mitigating the impact of the epidemic on rural communities. This step could include building capacity so that additional sector-specific activities that directly support those most affected by the HIV/AIDS epidemic can be designed and/or scaled-up.

Step 6: Identify monitoring and evaluation tools. For example, this could include activities ensuring that all current and future policies and programmes pass a gender and HIV/AIDS sensitivity test.

Adapted from: Health Economics and HIV/AIDS Research Division. 1999. AIDS toolkits. Durban, South Africa, University of Natal.
HIV/AIDS-STI Knowledge Programme, HEARD. 2003. HIV/AIDS mainstreaming: a definition, some experiences and strategies. United Kingdom, Liverpool School of Tropical Medicine, DFID.

Many countries have “mainstreamed” gender and HIV/AIDS-related concerns into policies, strategies and programmes, but there are still gaps in implementation. This is partly because mainstreaming demands capacity building and active engagement over a period of time. An additional failure of mainstreaming is that the meso level, which implements strategies and policies, is often overlooked. Sector-wide approaches (SWAs) are structures for implementing mainstreamed policies and reforms, but few countries have agricultural SWAs. In Zambia, health, education, road transport and (to a lesser degree) agriculture are currently leading the SWAs (DFID, 2003), and many lessons could be learned from this process. Furthermore, HIV/AIDS itself is affecting the human resource capacity of governments and the ability to implement reforms and to decentralize activities effectively.

Reaching the poorest – social protection

The question remains as to whether policies are designed in order to respond to the needs of the rural poor. They may provide guidelines and objectives, but they are often not operational frameworks. If, as is highlighted above, multi-sectoral and mainstreamed operational frameworks are also not running smoothly, the outcome for poor people will be bleak.

A number of countries have recognized the limitation of sector policies in addressing poverty, and have designed sector-specific activities to target the most vulnerable. Social protection is a broad concept, which can be loosely defined as strategies that are not primarily intended to promote economic growth but to alleviate poverty or reduce vulnerability (DFID, 2000), such as pensions, employment schemes, “safety-net” types of interventions (e.g. input vouchers, food price subsidies, supplementary feeding).

In addition to public forms of social protection, the private sector may be an efficient mechanism for putting the poor on the agenda. Not only is the private sector affected by the HIV/AIDS epidemic, it also often: has greater skills and resources than governments; can mobilize capital; has good access to workers, customers and supply networks; has a vested interest in a healthy workforce; and, perhaps most important, has substantial influence over government policy.

Examples of social protection in the IP-countries

Zambia has a public welfare scheme that provides health clinic vouchers, school bursaries and limited food distribution in a number of districts. Zambia also has a social investment fund (ZAMSIF), which is a decentralized coordination mechanism that can channel resources to the community level. A community investment fund finances small projects that are identified, planned, implemented, managed, operated and maintained by communities, and a district investment fund strengthens local government capacity and accountability.

Namibia has an Orphans’ Emergency Fund, which was established in 1998 under the Ministry of Health and Social Services and the Ministry of Women’s Affairs and Child Welfare. This is implemented with

the assistance of a national non-governmental organization (NGO), Catholic AIDS Action. The fund is meant to serve as a “stop-gap” measure for orphans who are in the process of applying for government assistance, and is designed to meet the expenses of school and examination fees, food or outstanding debts. Namibia’s pension scheme also helps to lessen poverty among the elderly and households that include elderly Namibians.

In **Uganda**, resources from the Poverty Action Fund are channelled to the district and village levels to support members of households affected by the epidemic through income-generating activities, nutritional support, training and improved access to schooling for orphans (UNDP, 2002).

Future steps

The Gender and Population Division (SDW) serves as FAO’s focal point for gender, HIV/AIDS and population ageing. SDW promotes the mainstreaming of these concerns into the activities of the Organization, and acts as an important catalyst in the follow-up to these innovative IP initiatives, in collaboration with partners inside and outside FAO.

Follow-up activities will be related to:

- ▶ Advocating and mainstreaming HIV/AIDS concerns, targeting policy-makers and the public. The IP has produced well-documented cases on how to tackle and alleviate some of the negative impacts of HIV/AIDS on people’s livelihoods, agricultural production and food security. These approaches can be used when FAO is providing its Member Nations with policy advice and technical assistance to develop agricultural sector strategies that counter the consequences of the epidemic and prevent its further spread.
- ▶ Replicating the pilot activities in other countries of Southern and East Africa, and obtaining the financial and human resources to continue developing the response strategies identified. One such example is the Improving Rural Livelihoods of HIV/AIDS-Affected Households in Northern Province, Zambia project, which was funded by the Government of Ireland and implemented through the FAO office in Zambia, with technical backstopping from SDW. The Zambian Government and FAO headquarters have also developed a Technical Cooperation Programme proposal to build institutional capacity in mitigating HIV/AIDS’ impact on the agricultural sector. Similar processes are taking place in Namibia and Uganda.
- ▶ Continuing action-oriented research. The IP, SDW and other programmes in FAO have learned that the research required to address issues of HIV/AIDS’ impacts is complex.¹⁵ As a response, SDW organized a workshop in Uganda in collaboration with the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA). The workshop emphasized gender-disaggregated data (GDD) and social research methods in the context of HIV/AIDS and gender. The IP methodology has been updated and refined for the household livelihood research related to the project in northern Zambia. For example, the refined sampling strategy includes household types that are at different stages of the AIDS epidemic, such as female- and male-headed households taking care of people living with AIDS (PLWA), female- and male-headed households taking care of orphans, and non-affected households as a control group.
- ▶ Disseminating information and experiences to create awareness about the linkages among HIV/AIDS, gender inequality, food security and agriculture. This will help to sensitize and influence policy-makers and development workers in FAO and partner countries on the importance of interdisciplinary collaboration for addressing the complex problems of HIV/AIDS and rural development. It will also help to raise awareness of IP experiences among a wider audience. Information will be communicated through various channels: on the FAO and IP Web site (www.fao.org/sd/ip/), in reports and articles and at relevant national and international events, meeting and conferences.

References

- Barnett, T. & Whiteside, A.** 2002. AIDS in the 21st Century: disease and globalization.
- CARE.** 2001. The impact of HIV/AIDS on agriculture production systems and rural livelihoods in the central region of Malawi.
- CEDAW.** 1997. Concluding observations: Namibia. UN Document A/52/38/Rev. 1, Part II paras 69–131.
- CHR.** 2003. 55th meeting. Resolution 22. Commission on Human Rights (CHR).
- CSW.** 1998. Report of the forty-second session (2–13 March 1998). Resolution 42/1 Human rights and land rights. Commission on the Status of Women (CSW).
- DFID.** 2003. Key Sheet Social Protection. Department for International Development (DFID). www.keysheets.org.
- DFID.** 2003. Mainstreaming HIV/AIDS across DFID Zambia Programme. DFID Resource Centre for Sexual and Reproductive Health.
- FAO, Eng.** 2000. HIV/AIDS in Namibia: the impact on the livestock sector.
- FAO.** 2002. HIV/AIDS, food security and rural livelihoods: fact sheet.
- FAO.** 2003. Food security and HIV/AIDS: an update. Committee on World Food Security. 29th Session.
- FAO, DCI, Wieggers.** 2003. Improving rural livelihoods of HIV/AIDS-affected households in Northern Province in Zambia. Preliminary findings.
- FAO/OXFAM-GB.** 2003. Report of Workshop on Women's Land Rights in Southern and Eastern Africa.
- FAO, SDW.** 2003. Gender, HIV/AIDS and Food Security. Presentation at ECOSOC Ministerial Round Table Meeting on Gender and Rural Development. New York, 30 April 2003.
- FAO/SDWP & Stokes, S.** 2003. Measuring impacts of HIV/AIDS on rural livelihoods and food security.
- FAO, WHO.** 2002. Living well with HIV/AIDS – A manual on the nutritional care and support of people living with HIV/AIDS. Rome, FAO Food and Nutrition Division
- GoU.** 2000. Poverty Eradication Plan. Revised vol. 1. Government of Uganda (GoU) Ministry of Finance Planning and Economic Development
- GoZ.** 2002. Poverty Reduction Strategy Paper. Government of Zambia (GoZ).
- HRW.** 2003. Double standards: women's property rights violated in Kenya, Vol. 15, No. 5. Human Rights Watch (HRW).
- IP, MAAIF.** 2001. The impact of HIV/AIDS on agricultural production and mainstreaming HIV/AIDS messages into agricultural extension in Uganda.
- IP, Mueller, Wieggers.** 2002. Building and managing cross-sectoral collaboration for sustainable development and food security: lessons learned from the IP Programme.
- MoH.** 2002. National HIV/AIDS/STI/TB Policy in Zambia (draft). Zambian Ministry of Health (MoH)
- Morris, T.** 2002. Special Envoy of the Secretary-General for Humanitarian Needs in Southern Africa: Report of the First Mission to Lesotho, Malawi, Mozambique, Swaziland, Zimbabwe and Zambia, 24 September 2002.
- NAADS.** 2001. Annual report 2001/2.
- NACOP/MOHSS.** 2002. Presentation by NACOP. National Coordinator. Ugandan National AIDS Coordination Programme (NACOP) and the Ministry of Health and Social Services (MOHSS).
- OAU.** 1981. African Charter on Human and People's Rights. Organization of African Unity (OAU).
- Okuonai, S., Karamagi, H. & Kyomuhendo, S.** 2003. Evaluation of HIV/AIDS policies in Uganda. Uganda AIDS Commission.
- ORMT.** 2002. Report from Ohangwena Regional Management Team.
- PMA, Government of Uganda.** 2002. Plan for Modernization of Agriculture: eradicating poverty in Uganda. Government strategy and operational framework. Ministry of Agriculture, Animal Industry and Fisheries, Ministry of Finance Planning and Economic Development.
- Qamar, K.** 2001. The HIV/AIDS epidemic: An unusual challenge to agricultural extension services in sub-Saharan Africa. *Journal of Agricultural Education and Extension*, 8 (1).
- RoN.** 1999. The National Strategic Plan on HIV/AIDS. Medium-Term Plan II. 1999–2004. Republic of Namibia (RoN).
- RoN.** 2002. 2001 Census Preliminary Results.
- TNDP.** 2002. Transitional National Development Plan 2002–2005. Zambia
- UNAIDS.** 2002. National response brief to HIV/AIDS. Namibia, Uganda and Zambia.
- UNAIDS.** 2003. Accelerating action against AIDS in Africa.
- UNAIDS, UNICEF, WHO.** 2002. Epidemiological fact sheets on HIV/AIDS and sexually transmitted infections. Update.
- UNDP.** 2002. HIV/AIDS and poverty reduction strategies. Policy note.
- UNGASS.** 2001. UN Special Session on HIV/AIDS. Gender fact sheet.
- UoC.** 2003. HIV/AIDS in Zambia. University of California (UoC).
- White, J. & Robinson, E.** 2000. HIV/AIDS and rural livelihoods in sub-Saharan Africa. Natural Resources Institute.
- World Bank.** 2000. Social Risk Management: a new conceptual framework for social protection and beyond. Paper No. 0006.

Annex I:
**Summary of IP survey
methodology**

ACTIVITY (July 2002-April 2003)	DESCRIPTION
Research team	<p>National research teams were set up. They consisted of experts from various disciplines and backgrounds so that they were well equipped to cover such a complex topic as the impacts of HIV/AIDS on agricultural production, food security and rural livelihoods. Desk studies were undertaken in each country to help identify data gaps and existing mechanisms that households and communities use in response to the epidemic and to refine the research methodology. National and international reports and information on the impacts of HIV/AIDS on agriculture and food security and the interlinkages with gender/youth were reviewed. Comprehensive annotated bibliographies were compiled in each country.</p> <p>Following secondary data review, the research teams, national-level IP stakeholders and officers from FAO headquarters agreed on the focus of the survey and developed a research framework. The research adopted a sustainable livelihoods approach as a useful tool for understanding the impact of HIV/AIDS on household assets and the various responses adopted by different households. Households are regarded as possessing different sets of livelihood assets that are essential to their livelihood strategies. These are human capital, natural capital, financial capital, social capital and physical capital (FAO/SDWP and Stokes, 2002).</p>
Secondary data review	<p><u>Data domains:</u></p> <ol style="list-style-type: none"> 1. demographic profile (household register including age, sex, education level, school dropout, orphan status, occupation, relation to household head and in/out-migration) 2. agricultural production (changes in total landholdings, amount of land cultivated, cropping patterns, land preparation methods and ownership of farm equipment over the last five years) 3. livestock production (changes in animal types, breeds and numbers over the last five years) 4. food security and nutrition (food availability, food self-sufficiency, eating patterns and access to food support) 5. health (illness, death and means to cover illness/death-related expenses) 6. labour (changes in intra-household labour allocation for productive and domestic tasks, use of hired labour and labour availability over the last five years) 7. socio-economic characteristics (changes in income/expenditure patterns and asset ownership) 8. agricultural knowledge 9. existing response strategies to HIV/AIDS effects on household assets 10. rural institutions (collapse of existing and emergence of new institutions, responses of existing institutions to the HIV/AIDS pandemic) 11. gender roles and decision-making <p><u>Data collection strategy:</u></p> <p>Data was collected through both a quantitative survey (the household level) and a qualitative investigation (the household and community levels). A comprehensive quantitative questionnaire covered the first seven data domains and included a retrospective component with a five-year recall period. Data were disaggregated by gender and household type (see sampling procedure). Qualitative methods involved participatory discussions at the community level to capture the general development context and data domains 8 and 10. Focus group discussions and individual household interviews were conducted to capture in-depth information related to labour constraints, gender roles and decision-making, changes in asset ownership, inheritance and existing response strategies. Various socio-economic and gender analysis (SEAGA) and participatory rural appraisal (PRA) tools were adapted, such as historical time lines, Venn diagrams, village resource maps, wealth rankings, gender activity clocks, seasonal calendars, problem analysis charts and an income and expenditure matrices. Focus group discussions were conducted separately for women and men.</p>
Sampling procedure	<p>Sampling was done in two stages:</p> <p>Stage 1: Study sites were purposively selected. In Uganda, three districts (Luwero, Masaka, Iganga) were selected to reflect the different livelihood options (crops, livestock and fishing) in the Lake Victoria Crescent agro-ecological zone and different HIV/AIDS prevalence rates (Masaka, Iganga and Luwero represent high, medium and low prevalence, respectively). In Namibia, three districts (Engela, Eenhana, Okongo) were selected based on different levels of HIV/AIDS prevalence (low, medium, high) and represent a cross-section of the main health districts in Ohangwena region. The reason for selecting Ohangwena region was that it is the poorest region in Namibia with a large share of the population involved in subsistence agriculture and it has one of the highest prevalence rates of HIV/AIDS in Namibia. In Zambia, Choma, Monze and Sinazongwe districts in Southern Province were selected owing to their relatively high HIV/AIDS prevalence levels and</p>

	<p>their importance in terms of agricultural production. In each of the districts within the three countries, two communities were selected – bringing the total sites to six per country.</p> <p>Stage 2: Households were stratified and then randomly selected from the different strata in each study site. In Uganda, households were stratified according to affected and non-affected status and were further stratified by whether the household was male-headed, female-headed or orphan-headed. An operational definition of affected households includes households in which at least one family member has been lost to HIV/AIDS or HIV/AIDS-related chronic illnesses (TB and pneumonia), or households in which at least one family member was suffering from frequent or long illness due to, or related to, HIV/AIDS during the recall period (1997–2002). Non-affected households are households in which no member has died of, or is living with, HIV/AIDS-related diseases. It was agreed that a higher probability of selection (0.7) should be given to the affected households and a lower probability (0.3) to the non-affected ones in order to give more relevance to impact. As in Uganda, in Namibia households were stratified according to affected status and gender with random sampling within the different strata. In Zambia, the Standard Enumeration Areas (SEAs) of the Central Statistics Office (CSO) were used. CSO has divided Zambia's districts into Census Supervisory Areas, each of which is subdivided into SEAs. For each SEA, preliminary information on the number of households and the population is known, and this was used for selecting enumeration clusters. Households within these clusters were stratified by gender, i.e. female- or male-headed. Survey households were then randomly selected from the list of male- and female-headed households. The final sample included 766 rural households in Zambia, 513 in Namibia and 610 in Uganda.</p>
Data collection	<p>Prior to conducting the actual fieldwork, the draft questionnaire was pre-tested in six to ten households, and local enumerators were trained in administering the questionnaires and in the participatory tools used for the qualitative research. The quantitative household questionnaire was administered in six communities over a period of one month per country, followed by qualitative data collection in the selected communities.</p>
Data management and analysis	<p>Tabulation plans were drafted and the data were entered and cleaned. A data management workshop was organized in Namibia in October 2002 with representatives from all three IP countries. One statistician from Zambia and one from Penn State University provided technical backstopping throughout the process. Data management was done in similar fashions in each country and basic analysis involved frequencies, cross-tabulations and descriptive statistics.</p> <p>Zambia: The data were entered using the Integrated Microcomputer Processing System (IMPS). The resulting ASCII data files were converted into Statistical Package for Social Sciences (SPSS) for data cleaning and subsequent analysis. The final baseline survey data set was saved and archived in both SPSS and MS Access formats for future use.</p> <p>Namibia: Data entry, cleaning and analysis were all done using SPSS software.</p> <p>Uganda: Epidemiological Information System (EPIINFO) was used for data capture and SPSS for data analysis.</p>
Lessons learned	<ul style="list-style-type: none"> • Focus on what aspects to study via quantitative and qualitative methods during the design phase of the study • Sampling problems associated with identification of “affected” households. It is important to note that use of the CSO Standard Enumeration Areas (SEA) in Zambia resulted in a low incidence of “affected” households in the sample. This, and the respondents’ low response due to HIV/AIDS stigma, which probably accounts for the very low proportion of the sample being assigned to the “affected” categories, points to the need to devote considerable effort to constructing an adequate sampling frame. • Attention is needed to construct adequate sampling frames for selecting “affected” and “non-affected” households. • An integrated research methodology that sequences qualitative and quantitative research methods (QL-QN-QL) is needed, i.e. there is a need to precede quantitative surveys dealing with HIV/AIDS’ impacts with qualitative investigations to help determine what should be investigated and how to characterize the quantitative variables. • Analytical/interpretive problems related to the a priori assignment of households to categories that may not be mutually exclusive (e.g. female- and widow-headed households). <input type="checkbox"/> Analytical/interpretive problems of attributing observed effects on households to HIV/AIDS. <input type="checkbox"/> Follow-up research is needed into inequality of property ownership among the different households types, particularly in relation to affected male-headed and male-headed households with orphans having relatively more assets.
	<p>Please contact the IP (integrated-programme@fao.org) for the following documents: Questionnaires (Uganda, Namibia and Zambia); The qualitative checklist; Enumerator instruction manual (Uganda); and Annotated bibliographies.</p>

**Integrated Support to Sustainable Development
and Food Security Programme (IP)**

Food and Agriculture Organization of the United Nations (FAO)

Viale delle Terme di Caracalla, 00100 Rome, Italy
Tel: (+39) 06 570 56751 , Fax: (+39) 0657052004
Email: Integrated-Programme@fao.org
Internet: <http://www.fao.org/sd/ip>

Funded by the Government of Norway

