



Review of the existing linkage between HIV/AIDS and Natural Resources Management in Uganda

By

Jackson Bwagiro Tumwine

10th September, 2007

Acknowledgements

This study

Executive Summary

In sub-Saharan Africa, AIDS is not only a health crisis, but a challenge to development, since AIDS affects nearly every dimension of social and economic life, especially in the worst affected countries. In Uganda, more than 1,000,000 people (850,000 - 1,200,000) are living with AIDS. 6.3% of the adult population currently live with HIV/AIDS and AIDS-related illnesses such as malaria, TB and pneumonia which are now the primary cause of illness and death among adults. The HIV-prevalence rate varies significantly between age groups. Adults aged 15 - 49 years living with HIV are estimated at 6.7% (5.7 - 7.6%) and adults aged 15 years and over living with HIV are estimated to be 900,000 (780,000 - 1,000,000) while women aged 15 years and above living with HIV are estimated at 520,000 (450,000 - 590,000). Death due to AIDS is estimated to be 91,000 (540,000 - 130,000) and for children aged 0 - 14 years living with HIV, it is estimated at 110,000 (39,000-200,000) while orphans due to AIDS aged 0 to 17 years are estimated to be 1,000,000 (870,000 - 1,300,000) (UNAIDS, 2006).

Poverty and inequality between women and men are both strongly connected to the spread of HIV, where poverty can drive women and girls to engage in unprotected sex in return for money or food, and women's lower status can make it difficult or impossible for them to negotiate for the use of condoms. Women are doubly hit, as more females than males are infected every day, and women are also the primary caregivers when other household members become ill (Jackson Tumwine, 2006).

The impact of HIV/AIDS on the management and conservation of natural resources is a field that has not been well explored. Much attention and research has focused on agriculture, rural livelihoods and the economy. However, a review of the available literature suggests that there is a growing body of knowledge and evidence on the linkages between HIV/AIDS and the management and conservation of natural resources. Studies conducted in Uganda have shown that HIV/AIDS impacts on natural resource management and conservation in the following ways: decreased availability of productive labour, loss of human capacity and labour, loss of traditional knowledge and indigenous skills, overuse of natural resources such as fuel wood, wild foods, medicinal plants, and fish, limited access to resources, increased vulnerability of community-based natural resources management to HIV infection. Increased poaching and gathering of wild foods can also increase, as affected people cannot perform heavy labour for agriculture.

The impact of HIV/AIDS on the management and conservation of natural resources is serious in Uganda and there is a great need to approach HIV/AIDS from all fronts at community and organizational levels ranging from awareness, prevention, treatment, training, working with local communities involved in community-based natural resources management (CBNRM) in addressing HIV/AIDS issues, integrating HIV/AIDS issues in the management and conservation of natural resources programmes and activities, and land policy initiatives to protect widows and orphans who lose land to the extended family members. The study recommended that management and natural resources conservation organizations would need to: design an HIV/AIDS policy, introduce HIV/AIDS awareness and prevention education, provide voluntary HIV counselling and testing services (VCT), introduce social welfare programmes such as medical insurance schemes, develop flexible human resource policies that would allow sick members to be allocated less labour-demanding tasks, support communities to communicate experiences and promote best practices in preventing the spread of HIV, and support community-based natural resources conservation organizations with health education.

1.0 Introduction

1.1 Global HIV/AIDS Estimates

AIDS (Acquired Immuno-Deficiency Syndrome) is the late stage of infection caused by HIV or the Human Immuno-deficiency Virus. Approximately 39.5 million people around the world were living with HIV/AIDS in 2006. Of these, almost two thirds were in sub-Saharan Africa. The same year, 2.5- 3.5 million AIDS-related deaths occurred globally. The numbers of people living with HIV continue to rise in many countries, especially in Africa, parts of Eastern Europe, South, South-east, Central and East Asia, and the Caribbean. Economically active adults are the most affected (UNAIDS 2006). The epidemic has devastating and tragic impacts on families and communities. It is affecting local and national economies, social structures and institutions. It is also affecting the environment through impacts on human capacity, natural resource management, and land use, rural livelihoods, human capacity and conservation. However this impact continues and we do not yet understand its full extent, nor do we know how to respond to it.

1.2 Country Data

Uganda is one of the poorest countries in the world with an estimated population of 28,816,000 million with a population growth rate of 3.4%. Life expectancy at birth for women is estimated at 51 years and for men, 48 years with a human development index of 144 and a human poverty index of 66 with the value of 36.0. A majority of the population live on less than \$2 dollars a day (HDI, 2006). Uganda HIV/AIDS estimates show that 1,000,000 (850,000 - 1,200,000) people are living with HIV. Adults aged 15 - 49 years living with HIV are estimated at 6.7% (5.7 - 7.6%) and adults aged 15 years and over living with HIV are estimated to be 900,000 (780,000 - 1,000,000) and women aged 15 years and above living with HIV are estimated at 520,000 (450,000 - 590,000). Death due to AIDS is estimated to be 91,000 (540,000 - 130,000) and for children aged 0 - 14 years living with HIV, it is estimated at 110,000 (39,000 - 200,000) while orphans due to AIDS aged 0 to 17 years are estimated to be 1,000,000 (870,000 - 1,300,000) (UNAIDS, 2006).

Uganda's economy is largely based on natural resources, with over 80% of the population living in rural areas and engaged in agriculture for food and income (NEMA, 2001). With a GDP growth rate of about 6% and a population growth rate of 3.4%, natural resource exploitation will continue to form the basis for livelihoods of the majority of rural and urban Ugandans in the foreseeable future. The land under crops in Uganda is being cultivated primarily by small-scale farmers, with an average farm size of 2.5 ha (Zake et al. 1999). However, through past years, agriculture (particularly at household level) has registered substantial declines in productivity. The decline of agricultural production, mainly caused by degradation of natural resources, has been found to be one of the root causes of poverty and food insecurity (Ibid, 2006). In these communities, the process of achieving sustainable livelihood requires attention to the peculiarities of the local ecosystem. The process includes people and their institutional structure as well as landscape and natural resource management (NRM) (Ibid, 2006). Central to improving livelihoods are the capabilities of the local

1.3 The Impact of HIV/AIDS on the Ugandan Economy

The impact of HIV/AIDS on Uganda's economy and Africa's economy in general is a field that is well explored. Evidence from past studies conducted in Africa in general and Uganda in particular shows that AIDS affects rural livelihoods and food security (Barnett and Blaikie 1992; Gillespie 1989; Barnett and Haslwimmer 1995; Topouzis and du Guerny 1999; Mutangadura, Mukurazita and Jackson 1999; Mutangadura and Webb 1999; Rugalema 1999; Rugalema, Weigang and Mbwika 1999; Topouzis 1988; Kwaramba 1997; White and Robinson 2000; Jackson Tumwine 2003; Astrid 2003). In agreement with the above studies, there is no question of the extent and nature of the impact of the HIV/AIDS epidemic on the rural sector in Africa in general and Uganda in particular, especially in terms of rural livelihoods and agriculture. However, this impact continues and we do not yet understand its full extent, nor do we know how to respond effectively to it.

A review of available studies on the impact of HIV/AIDS in Uganda shows that there is little empirical information about the impact of HIV/AIDS on natural resources management in Uganda. This is partly because for a long time the epidemic has been perceived as a health problem and past studies and interventions paid more attention to rural agricultural production systems and the economy while less attention was given to natural resources conservation.

1.4 The Impact of HIV/AIDS on the Management and Conservation of Natural Resources

The growing linkages between the effects of HIV/AIDS, food insecurity, poverty and natural resource degradation constitute a formidable challenge to development policies and practices in Uganda. This is because the causes and consequences of the HIV epidemic are widely associated with wider challenges to rural development, such as poverty, food and livelihood insecurity, and gender inequality (Jackson Tumwine, 2006). In effect, HIV/AIDS exacerbates existing development problems through its catalytic effects and systemic impacts. In areas severely affected by HIV/AIDS, the catalytic effects and systemic impact of the epidemic on rural development may amplify existing development problems to an extent of triggering structural changes (such as in adult and infant mortality) and/or create new problems and challenges for rural development (child-headed households, the breakdown of informal rural institutions and thus of certain vital social safety-net mechanisms) (Ibid,

Management staff, August, 2007). Studies have also indicated that when staff members working for natural resource management organizations pass away, those organizations lose valuable institutional experience and memory. For example, loss of extension officers, senior officials, and other personnel can have detrimental impacts on natural resource conservation. For example, when a staff member dies, organizations may have to divert some of their conservation funds to pay for death benefits and costs associated with caring for sick employees and funerals, while also suffering from increased employee absenteeism (Ibid 2007). Biodiversity conservation studies have shown that enforcement of protected area management rules and regulations may also suffer if an adequate staff size is not maintained. For example, if a protected area loses some of its rangers to AIDS and they are not replaced by other trained staff, villagers may be more inclined to poach or break other resource use rules, because the risk of getting caught is lower. This situation might be exacerbated if, knowing that they will die within a few years, villagers lose a long-term view of stewardship. People may then become less willing to engage in the management and conservation of natural resources. Studies on CBNRM in the highlands of Kabale in South-western Uganda have recommended the need to maintain institutional memory by documenting important management decisions, meeting minutes, management systems, research studies results etc. and to ensure

members, who have already suffered a significant loss of knowledge owing to the death of parents – their main source of farming and natural resources management knowledge – are also hampered by the belief that they are too young to participate in community sensitization programmes. Other households were unable to do so because of the high fees charged, or because of their own heavy workloads. Sources of information about new techniques are also being lost when extension staff die.

A related study on *“The impact of HIV/AIDS on the Community Based Natural Resources Management Practices in the Highlands of Kabale in South Western Uganda”* in agreement with previous studies, also found that communities are losing the knowledge of medicinal plants, wild foods, soil conservation and agricultural practices as people die of HIV/AIDS at an early age without passing this knowledge on to the younger generation. This is eroding the whole knowledge base of traditional

A study carried out on the "*Impact of HIV/AIDS on Women's agricultural based livelihoods in Kanungu district*" found that men had withdrawn from agriculture to rely more on the forest resources in Bwindi and Queen Elisabeth National Parks. There were increased cases of poaching of wildlife in Queen Elisabeth National Park. It was revealed that some people had resorted to poaching because they were too weak to engage in farming, needed quick money to take care of their sick household members or to get meat for the family. The same study found that several witch doctors had started claiming to heal AIDS using traditional medicine and they were encroaching on the protected forests while harvesting traditional herbs for herbal medicine and this resulted in conflicts with the park wardens. It was found that this

Mbarara, Lira, Luwero and Busia”, all confirm that as male heads of households die due to HIV/AIDS, many orphans and widows are dispossessed of their land in some of the affected households and serious land grabbing occurs. This affects access to land, land management and use, often resulting in loss of good land management practices due to lack of security over land. As a result, affected households do not use land in a sustainable manner because they fear that at any time it will be taken by the male relatives. It has been found out that in some affected households and communities in Kabale, the priorities have changed and long term soil conservation has declined in favour of short term livelihood options (Jackson Tumwine 2006).

A related study on “*The effects of HIV/AIDS on community based natural resources management in the highland areas of Kabale in south western Uganda*” has shown that women are resource users and yet they lack control over resources and that the gender related factors limiting women’s access to resources and land use in the

Manafa District Administration

During a discussion with the Manafa District Environment Officer, it was revealed that attempts to integrate HIV/AIDS in environmental programmes and projects are ongoing. The district is still capturing issues of environment and HIV/AIDS to integrate into the District Development Plan. The district's Environment Department has reached some CBOs, trained them and worked with them in environment and HIV/AIDS issues. One of the CBOs is Nambale Widows Association in Buyuza Parish in Butinu Sub-County. This group has been sensitized by the District Environment Office, Community-based Services Department and by the CHAI officer on the issues of HIV/AIDS. Within the association, there are community facilitators who have been trained by TASO to pass on the HIV/ADS message. The district has been developing a plan through a participatory process. The district is planning to integrate in its development plan the following issues: fire wood, erosion, degradation, streams and water sources, stream banks as a result of population pressure and health and sanitation. The organization (Nambale Widows Association) is already addressing the issues of degradation by engaging in reforestation, income generating activities such as bee keeping and crop farming i.e. improved bananas. The district has a plan of supporting CBOs on fuel saving stoves, and in the long run a campaign on home hygiene and sanitation with assistance from District and Sub County health inspectors.

According to the District Environment Officer, the CBOs have proved successful and efficient in their work such as starting banana plantations. They have succeeded in recovering soil fertility and the banana harvest is good. Bee keeping is ongoing and the fuel wood project has just started.

At the district level, the District HIV/AIDS focal person (District Community Development Officer) is responsible for HIV/AIDS issues. He has been trained by CHAI programme and Uganda AIDS information Centre. Other CBOs that have addressed the issues of HIV/AIDS and environment in the district include: Kifango Association in Sibanga Sub-County, BUDA (Buwaya Development Association) Bwagogo Sub-County, and Bugobero Orphans of Hope in Bugobero Sub-County. *(More will come from the workshop participants targeted from this region on issues of natural resources management and conservation, including what has been done at different levels, i.e. management and community, to address HIV/AIDS in the districts above. This will include contributions by the District Environment Officer and the Chairperson of Nambale Widows Association.)*

Mbale District Administration

The district is already implementing HIV/AIDS awareness programmes in its activities and these activities are already incorporated in the District Development Plan. They include energy saving stoves as an alternative source of energy and backyard kitchen gardening targeting HIV/AIDS affected households. On natural resources management, the district has plans of raising awareness on land ownership and legal provisions in the communities as a result of increased cases of widows and orphans losing land to the extended family members. There are a few CBOs and NGOs addressing NRM issues and HIV/AIDS in the district. Some of the CBOs include: Busoba Tuban Farmers Association (BUTFA) in Busoba Sub-County (involved in agriculture and environment), Lwasowe Women Group Association in Wanal Sub-County (involved in tree farming/nursery beds), and Bubyangu Farmers Association in Bufubo Sub-County (involved in fuel saving stoves, agro-forestry and nursery bed management). At the district level, there is a big project "Integrated Family Development Initiative" (IFDI) involved in construction of fuel saving stoves which is

funded by DFID. There is also the Green Belt Environment and Health Initiatives. This has been operating in Palisa and has now moved to Mbale District. Its main activities include tree planting, malaria and HIV/AIDS. Other concerns in the district which need support include integrating HIV/AIDS and environment guidelines into local government development planning developed by NEMA and SNV. *(More will come from the workshop participants targeted from this region on issues of natural resources management and conservation including what has been done at different levels i.e. management and community, to address HIV/AIDS in the districts above.)*

Sironko District

HIV/AIDS integration is still at the conceptual level. There are a few CBOs and NGOs involved in environment and community development programmes. Some of the CBOs include: Sironko Valley Project (involved in tree planting and nursery bed management), Mt Elgon Bee Keeping Association (involved in bee keeping, tree planting and nursery bed management) and BUSDEF (involved in water harvesting).

These CBOs already have funding and what is missing is building the linkages i.e. integrating HIV/AIDS, malaria and TB messages. There is also Sironko Farmers Association which brings together several CBOs involved in agriculture and natural resources management including HIV/AIDS. *(More will come from the workshop participants targeted for this district. i.e. the District Environment Officer and chairpersons of BUSDEF and Mt Elgon Bee Keeping Association.)*

Busia District

There are several CBOs and NGOs operating in Busia District such as FOC-REV (Friends of Christ, Revival Ministries) involved in advocacy for the rights of children and women, provision of counselling services for people living with HIV/AIDS, providing new technologies and inputs, and early childhood development. Christian Children's Fund (CCF) is also involved in advocacy for women and children's rights. The Red Cross also does advocacy and women rights' awareness creation. Happy Childhood Foundation and FOC-REV benefited from The HIV/AIDS Global Fund and they are addressing HIV/AIDS issues. *(More will come from the workshop participants targeted from this district on issues of natural resources management and conservation, including what has been done at different levels, i.e. management and community interventions, to address HIV/AIDS in the district.)*

2.2.2 South Western Region

Kabale, Kanungu, Kisoro, Ntungamo, Mbarara and Bushenyi Districts

Africare implemented a natural resource management programme funded by USAID with a component of HIV/AIDS and food security which covered more than 100 villages in Kabale District. It also had a child survival programme that focused on the integrated management of child illness, while incorporating water resource development, vegetable gardening, and HIV/AIDS prevention. These programmes addressed issues ranging from maternal pre- and postnatal care to early childhood immunizations, nutrition, water and sanitation, and control of diseases (malaria, diarrhoea, acute respiratory infection and HIV/AIDS) that commonly claim the lives of many children in the area. The majority of Africare's HIV/AIDS programmes during 2003 were devoted to community-based prevention, in most places using "the ABC approach" (Abstinence, Being faithful, and correct and consistent Condom use), with an emphasis on behavioural change. Special groups reached by prevention programmes included adolescents and young adults, women, migrant workers,

residents of refugee camps in Kisoro District, members of especially isolated or poor communities, and many more. Additional programmes in the area ranged from AIDS orphans assistance to natural resources management. In Ntugamo District Africare implemented radio transmitted HIV prevention education, orphan care, protection and empowerment and we c77y9istr1DS

targeted from the above districts and any conservation organizations on issues of natural resources management and conservation, including what has been done at different levels, i.e. management and community, to address HIV/AIDS.)

2.2.4 Northern region (Lira, Guru, Kitgum, Padar districts) Lira

Only a few organizations are involved in management and conservation of natural resources due to insecurity and more attention has been focused on providing social services in camps. Organizations like UNICEF, ACORD and Youth Alike assist orphans and other vulnerable children with income generating activities like piggy, goats and with scholastic materials. Religious organizations have also given assistance while CBOs have tried to empower vulnerable people and advocate for community empowerment and betterment of people. *(More will come from the workshop participants targeted from this region on issues on management and conservation of natural resources including what has been done at different levels i.e. management and community, to address HIV/AIDS in the districts above.)*

The above specific cases reveal that not much has been done in the field of management and conservation of natural resources and more needs to be done to integrate HIV/AIDS issues in conservation of natural resources.

3.0 What can be done by conservation organizations

From the management point of view, there is need for conservation organizations to develop institutional HIV/AIDS policies, to introduce HIV/AIDS awareness, promote education in their programmes, provide voluntary HIV counselling and testing services (VCT) for their staff members and introduce medical insurance schemes to cater for the welfare of their workers and above all, introduce flexible human resource policies to help transfer sick members to less labour-demanding tasks.

There is also need for management and conservation organizations to mainstream HIV/AIDS and gender into all organizational programmes and activities and promote the benefits of sustainable natural resource management to alleviate impacts of HIV/AIDS on conservation communities. There is a need to support community based natural resources management groups and associations to share their experiences, to promote best practices within the entire conservation community and to support community based natural resources management groups with health education.

References:

Ashburner, J., Friedrich, T., Benites, J. (2002) 'Opportunities and Constraints for Conservation Agriculture in Africa' LEISA 18(3): 13-14 Barnett, T. and Blaikie, P. (1992) AIDS in Africa: Its Present and Future Impact (London: John Wiley; New York: Guilford Press)

Asingwire N (2001). "The Impact of AIDS on Agriculture and Mainstreaming HIV/AIDS into Extension Work". Consultancy for FAO

Barnett, T. and Blaikie, P.M., AIDS in Africa: its present and future impact, Belhaven Press, London and Guilford Press, New York, 1992.

Barnett, T. and M. Haslwimmer, The Impact of HIV/AIDS on Rural Livelihoods and Farming Systems in Eastern Africa, Rome, FAO 1995

FAO and UNAIDS, 1999. Sustainable Agricultural/Rural Development and vulnerability to the AIDS epidemic. FAO and UNAIDS Joint Publication UNAIDS Best Practice Collection. Geneva

NAADS, 2003, The Impact of HIV/AIDS on agricultural sector and rural livelihoods in Uganda (National Survey report)

Sanginga Pascal, Tumwine Jackson and Lijja Nina, 2006: Patterns of participation in farmer research groups: Lessons from the highlands of south western Uganda. Published in the Journal of Agriculture and Human Values Volume 23 December 2006, pp 501-512(12)

Tumwine Jackson 2007: The impact of HIV/AIDS on the Community Based Natural Resources Management Practices in the Highlands of Kabale in South Western Uganda

Tumwine Jackson 2005: Understanding the relationship of Gender, Poverty, and Livelihood Strategies, HIV/AIDS and their impact on Natural Resource Management in the Highlands of South Western Uganda

Tumwine, Jackson 2005: The Effect of HIV/AIDS on Rural Women's Agricultural Production and Their Livelihoods. A Study of Kanungu District in Uganda; available online ([wudwsn'11 Tc 0HTW/AIDS\) Tj 43.5ne27.81of](#))