The causes and consequences of the HIV epidemic are closely associated with numerous development issues: poverty, food and livelihood insecurity, and gender inequality. Lack of availability of basic social services, including health and education, contribute to the spread of disease. All of these factors affect economic infrastructures, both in a broad context and at individual levels, and ultimately result in the inability of individual households to earn income through traditional means.

HIV/AIDS was initially considered an urban issue: transmission was at its highest in densely populated regions. It is now clear that rural areas have rates of infection equaling those of the urban centres. Transmission rates have been exacerbated by strengthened rural-urban linkages, including improved transport, road systems, trade and marketing centres, and the migration of family members for work.

Rarely is farming mechanized in developing countries—communities depend on the availability of local labour for their survival. Household food security in rural areas is therefore particularly vulnerable to the effects of HIV/AIDS, especially with respect to the supply of labour.

Marginal landholdings, labour shortages, low agricultural yield, environmental vulnerability (including drought and pest/disease plagues,) and lack of opportunities for commercialisation of surplus result in low incomes and insecure livelihoods. Households need sufficient income to purchase the food they are unable to grow for themselves.

Impact of HIV/AIDS on Food Security

HIV/AIDS primarily affects those aged 15 to 50 years—the bulk of the labour force. FAO estimates that AIDS has killed seven million agricultural workers in Africa since 1985. It has the potential to kill 16 million more within the next 20 years.

Infection rates in young African women are far higher than in young men (due mostly to biological factors such as the greater efficiency of male to female transmission, age-mixing in sexual relationships between older men and younger women, and gender inequality). Typically, the quantity and quality of food available to a household will decline as productive family members become sick or die. The additional burden of caring for orphans and unproductive individuals can impact upon overall food security.

What is Food security?

Food Security is described as year-round access to sufficient food of appropriate nutritional value. This basic human need is dependent on a number of factors: availability and stability of food stocks, through either home production or from readily accessible markets; accessibility of food stocks—both economically and geographically; and equal distribution in households where traditional practices often result in the marginalized members of a family (the elderly, children, women) having inequal access.
In urban areas, HIV contributes to high absenteeism, low productivity, increased health care costs, loss of skilled staff, and increased recruitment & retraining costs—resulting in substantial business losses.

The foundation of the family is severely affected by HIV/AIDS. Reduced incomes, lack of alternative food sources, and increased medical costs and debt result in dangerous coping strategies—such as engaging in prostitution. Remittances from migrant workers to rural families are reduced when workers return to their home village for care. Children who cannot be cared for in cities are sent back to extended family in rural areas. Dependency ratios increase: as people become sick, and as orphans are incorporated into extended families, the number of dependent family members versus productive members increases. This further threatens food security, by increasing costs and stretching limited income and food reserves.

Labour shortages and reduced productivity are experienced as sick people are less productive, and their caregivers are diverted from productive activities. Productive time is also lost to funeral attendance and mourning periods—agricultural extension workers in Southern Africa spend an average of 10% of their work time attending funerals, instead of providing technical support to farmers. The increased burden often falls on women, who traditionally are the caregivers within many communities. A higher incidence of HIV infection in women is potentially catastrophic for household food security—women are also often the predominant subsistence farmers within these communities.

A decrease in land use for cultivation due to labour shortages affects the agricultural mainstay of many communities. Yields also decline due to inability to purchase fertilizers and pesticides and as tilling, weeding and pest control are delayed. Knowledge of sound agricultural practices is lost, and soil fertility inevitably suffers when the short-term focus becomes caring for sick family members. Commitment to long-term conservation of land takes a back seat.

Food reserves will decline due to poor conservation and storage methods, resulting from loss of knowledge of effective techniques, particularly when husbands die. Crop variety will also decline as households switch from cash crops to subsistence crops, which are less labour intensive. Nutrition is affected—nutritious crops, such as vegetables, require more care. Livestock also declines, as animals are sold to meet rising medical and funeral costs.

As the pandemic spreads, agricultural skills and traditional farming methods are lost: adults die before they can pass skills onto the next generation, taking with them years of accumulated locally adapted knowledge.

Labour sharing practices have been common in Africa to assist at peak labour periods, such as harvest. These systems are breaking down due to widespread labour shortages resulting from AIDS related deaths and sickness. Widow inheritance (where a man will inherit the wife of his dead brother) is responsible for the increasing transmission of HIV within families, should the widow also be HIV positive. Conversely, some widows are left landless and without property, increasing their vulnerability to HIV infection through survival behaviours such as prostitution.

Orphans incorporated into families cause additional strains on food security, and many are excluded from school attendance due to income shortfalls. Alternatively, households headed by children are becoming more common, indicating a breakdown in traditional support systems. These children are particularly vulnerable to abuse, poor agricultural production due to inadequate knowledge, exclusion from schooling, and chronic insecurity.

The endemic and systemic nature of the HIV/AIDS crisis necessarily affects policy making and programming at all levels. Governments, donors, and implementing agencies have a number of issues and program options to consider.

**Implications for Policy & Programming**

The causes and effects of the HIV/AIDS pandemic are complex and interconnected. A multi-sectoral approach to programming which recognizes the developmental context of the epidemic is essential. HIV/AIDS is not just a health issue: it is also an issue of poverty, and an issue of social justice.

Development policies which support poverty alleviation, food and livelihood security, and the empowerment of women can mitigate the effects of HIV/AIDS. HIV/AIDS-specific policies, in conjunction with other policies, can serve to compliment each other, especially in terms of education for prevention and care.

Policy making at the macro level is fundamentally important to guarantee the human rights and freedom from discrimination of people living with HIV/AIDS. De-stigmatization and increased community acceptance are fundamental challenges for policy makers. Food security for HIV-positive urban dwellers is directly linked to non-discriminatory labour policies—maintenance of sensitive institutional frameworks is critical.

Other macro level policies, such as those dealing with agriculture, can have indirect effects on the pandemic by increasing or reducing the vulnerability of farm households. In general, policies which work to protect or
promote farmers’ incomes will have the additional benefit of assisting families to cope with the effects of AIDS: increased costs associated with sickness, vulnerability to infection due labour migration, and alternative income-generating strategies such as prostitution.

Macro level policies which affect and are affected by HIV/AIDS include:

- institutional frameworks: promoting the participation of stakeholders in decision-making, or improving legislation on property / human rights and discrimination, may empower marginalized communities, those typically most vulnerable to the epidemic. National economic issues related to tariff protection will also impact upon vulnerable communities by affecting their income-generating capacity. Issues such as potential national food deficits resulting from labour shortages will require policy decisions related to several concerns, such as food imports and immigration of labour.
- market-related policies: minimum wages, interest rates and floor / ceiling prices for agricultural goods could all contribute to establishing a minimum income for poor households.
- resources: infrastructure facilities for storage of surplus production would permit the sale of surplus when demand and prices are high, which would have a favourable impact the income of rural households and reduce seasonal vulnerability between crops. Education through extension services and development of human capital through training could also reduce vulnerability through positive changes in agricultural techniques.

Programming at the micro level involves a complex web of issues, some controllable and some not. Programming needs to be flexible and responsive to varying situations, which are becoming more fluid with the spread of HIV/AIDS.

Micro level policies which affect and are affected by HIV/AIDS include:

- mainstreaming of HIV/AIDS: due to the pervasive nature and complex interconnectedness of the pandemic, there is a need to incorporate fundamental HIV/AIDS elements into all programming, across all sectors, in developing countries.
- preventive education: staff/volunteers/activists within organizations and communities where programming is underway should receive HIV/AIDS education, particularly in terms of prevention, anti-discrimination, de-stigmatization, and care. Existing social groups such as schools, religious groups, women’s groups, farmers groups, and so on also require support, including educational materials, training, and advice.
- institutional strengthening: community & civil society, local, provincial and national governments—in other words, all levels of society—require sound capacity-building programs to ensure democratic and participatory decision making. Institutional strengthening will also assist all stakeholders in implementing practical, appropriate responses to the issues of poverty, inequality, and HIV/AIDS.
- women in focus: it is critical to ensure that women benefit from agricultural extension services and income-generating programs, as they represent the majority of subsistence food producers. In addition, the incidence of households headed by women is increasing, and gaps in agricultural knowledge and income requirements make them particularly vulnerable to the impacts of poverty and HIV infection. Households headed by children should be similarly targeted.
- labour saving techniques: communities with labour shortages require programs which address these shortfalls. Alternative agricultural systems—crop blending, low tillage techniques—should also be considered, and labour intensive food production systems should be re-assessed. Labour-saving food processing systems, such as grinding mills and de-huskers to reduce the already substantial burden of work for women, present other options. Alternative cooking technologies or fuel sources may assist in reducing time spent in search of firewood.
- improved crop varieties: crops resistant to drought, disease, and pest infestation, which would reduce demand for labour, could be promoted.
- storage systems: due to loss of knowledge of effective storage techniques, programming should concentrate on post-harvest protection measures, particularly targeted at women and youth. Rodent, pest, and fungal infestation of reserves could be avoided.
- livestock diversification: small livestock, including chickens, ducks, and goats could replace cattle, which have either been sold or require intensive labour efforts. Small livestock require less care, and can provide access to small amounts of income quickly.
- alternative income sources: support for alternative income-generating activities for vulnerable groups and HIV positive people should be considered, which could ease financial burdens on affected families and provide safe alternative activities.
- nutrition & health: dissemination of information on diet, nutrition, and health is particularly important for communities suffering from HIV/AIDS. Better nutrition may increase people’s years of productivity and reduce their vulnerability to the disease. Programs that facilitate local production of nutritious foods sold at local market prices may prove beneficial.
productivity: expectations as to the success and productivity of programming should be re-assessed in light of the HIV/AIDS pandemic. The efficiency of staff, participants, and other stakeholders may be significantly impaired, leading to delays and increased costs. Sufficient space must be built into program deadlines, budgets, and objectives to allow for the impacts of HIV/AIDS.

organizational policies: NGOs need policies specifically related to HIV/AIDS, including establishing their positions with respect to staff and family, and access to retroviral drug treatments.

**Conclusion: A Case Study**

Gwanda is an agricultural village located near Lake Victoria in Rakai District of Uganda, one of the African countries most severely affected by HIV/AIDS. It went from being a relatively prosperous coffee and banana growing village some years ago into what is now a marginal community with severe labour shortages, low incomes, and poor food security. Gwanda is an indicator of how the spread of HIV/AIDS is devastating the developing world—especially with respect to food supplies.

For a detailed analysis of the Gwanda situation, see: A Window on Gwanda: HIV/AIDS in one rural community: www.fao.org/FOCUS/E/aids/aids4-e.htm

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Le feuillet “VIH/sida et sécurité alimentaire” est disponible en français.