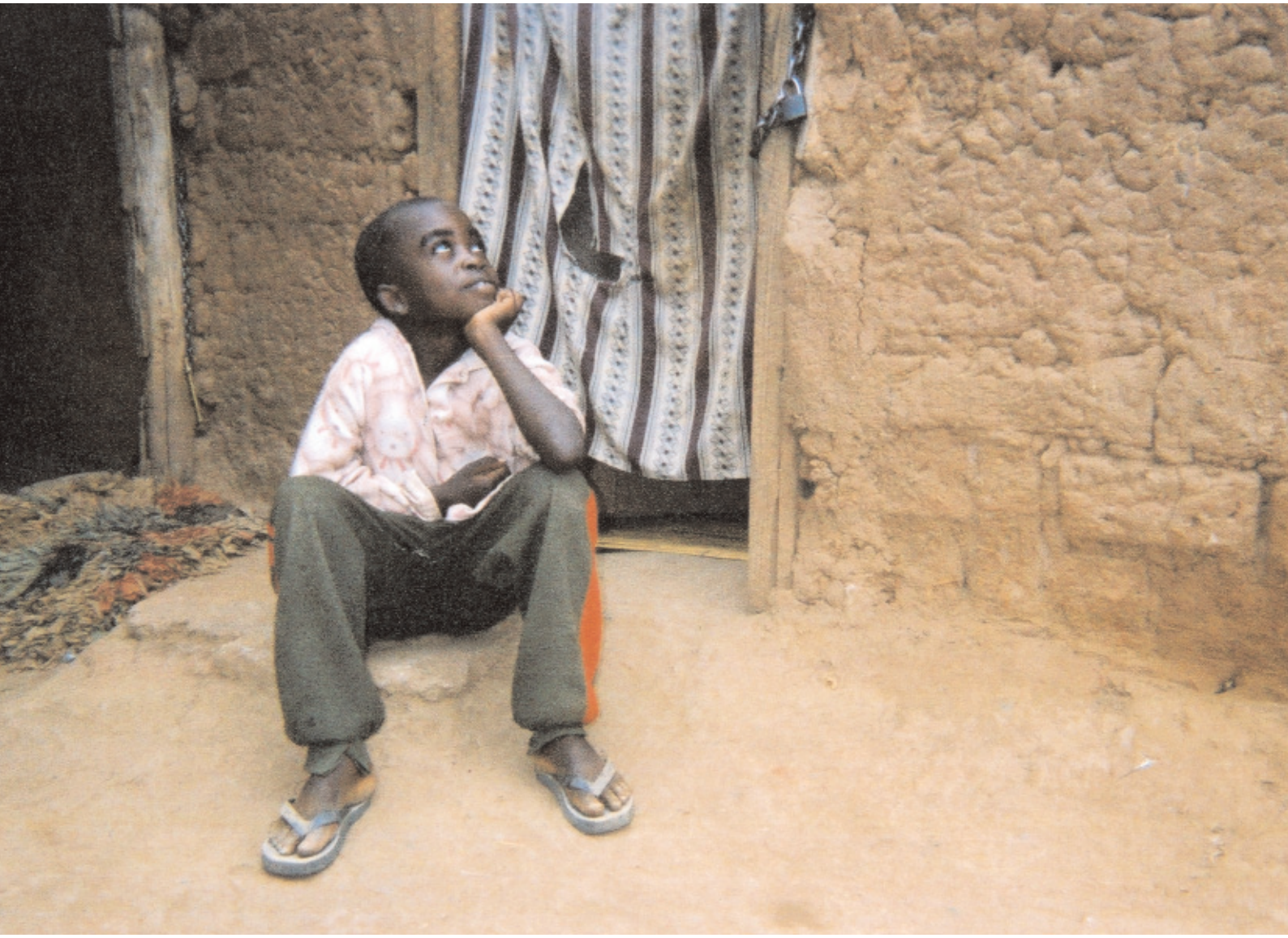


"Mabvuto"

This boy stays with his mother but the mother doesn't work. Mabvuto was not going to school because the mother had no money to pay. Now he has started going to school at the age of 10. He is in grade two.

Photographer: Kennedy Kamanga

1 ~ HIV and AIDS and human development

The first case of HIV, the virus that causes AIDS, in Zambia was diagnosed in 1984. By the end of 2005, 489,330 people were estimated to have died of AIDS-related illnesses while 914,691 were said to be living with the virus. There were 44,329 new infections in 2005, compared to 629 in 1985. The epidemic has created an unprecedented orphanhood situation. By the end of 2005, there were 801,420 children orphaned by AIDS. This figure accounted for two-thirds of the total number of orphans. The medical and clinical implications of HIV and AIDS have been devastating.

In Zambia, like many other countries, HIV has emerged as a human catastrophe of unprecedented scale. The effects are more than clinical, affecting individuals, households, communities and nations in multiple ways. Every Zambian knows a relative, friend or an associate who has died of an AIDS-related illness. The adage "we are all either infected or affected" accurately portrays the situation as it exists today.

The immediate impacts of HIV and AIDS are at the household level. Households are losing human capital through death or due to the rising burden of caring for the chronically ill. When a household member falls ill, the financial cost of care can be colossal. With productivity and production undermined, households are resorting to distress sale of their physical assets, further undermining their resilience against shocks. The social networks that have supported households, such as the extended family system, are now under severe stress and are failing to cope with the impacts of the epidemic.

These impacts are remitted through various transmission mechanisms and are by aggregation adversely affecting society. Although the instruments for understanding the national economic impacts of HIV and AIDS are still being refined, emerging evidence suggests that when the direct and indirect effects are taken together, adverse impacts on development are significant.

This Report demonstrates that we are only beginning to understand the scale of the impact of HIV and AIDS. One thing is, however, already clear - Zambia and the international community cannot afford to assume a 'business as usual' approach. Fortunately, this has been recognised and there is now a growing international alliance rallied to respond to this epidemic.

Some of the responses by the international community include the Millennium Declaration of September 2000 adopted at the United Nations (UN) Summit of heads of states, the Declaration of Commitment to fight HIV and AIDS of June 2001 adopted during the UN General Assembly Special Summit, the Global Fund to fight HIV and AIDS, Tuberculosis and Malaria and the President's Emergency Plan for AIDS Relief by the United States Government.

In Zambia too, many players have rallied to act against this epidemic. Parliament passed a National HIV and AIDS Bill in November 2002 that mandated the National HIV/AIDS/STD/TB Council (NAC) to coordinate the national response. National, sector, district and community based initiatives have since followed and they are supported by the Government of the Republic of Zambia, donors, non-governmental organisations, community-based organisations, faith-based organisations and the business sector.

Generally, the will and determination to actively respond to HIV and AIDS is grow-

ing. However, when HIV was first diagnosed it was shrouded in stigma and denial, which means that much ground has already been lost.

The delayed response means that we need to do much more to halt and reverse the spread of the infection. HIV and AIDS must be brought to the centre of the national development agenda much more strongly than has been the case so far. This requires an urgent response, focusing on household level, by all stakeholders.

2007 Zambia Human Development Report

The 2007 Zambia Human Development Report (ZHDR) pursues the central theme of the household's capacity to respond to HIV and AIDS. The Report looks at the theme from three key inter-related and mutually reinforcing aspects.

The first is the relationship between HIV and AIDS and human development. As shown in this Chapter, HIV and AIDS threatens all the tenets that constitute human development. Threat on longevity has been perhaps the most visible, as seen in falling life expectancy.

Educational attainment is also being adversely affected as the epidemic reduces the number of teachers the country is able to deploy. In addition, children are withdrawn from school to provide labour at home to help make ends meet. Furthermore, the psychosocial consequences of the trauma of seeing a parent die after prolonged illness diminishes children's ability to learn.

This Report shows that HIV and AIDS reinforces poverty while poverty in turn makes people susceptible to HIV and AIDS. The pandemic is undermining the achievement of decent standards of living while poverty in turn makes the tackling of HIV and AIDS difficult. The 2007 ZHDR advocates that responding to HIV and AIDS is fundamental to Zambia to make progress in human development.

The second angle (pp. 20-24) is an examination of how HIV and AIDS is

Box 1.1: National Human Development Reports in Zambia

The 1997 ZHDR tackled the theme of poverty. It presented the state and trends in Zambia's human development and poverty since the mid-1970s. It also discussed trends in factors with a close bearing on human development: health, education, employment, security, equity, environment and participation.

The 1998 ZHDR focused on the provision of basic social services. It advanced the thesis that poverty reduction entails empowerment of the people, especially of those who suffer deep deprivation. The provision of and ready access to basic social services constitutes one of the major sources of such empowerment.

The 1999/2000 ZHDR tackled the theme of employment and sustainable livelihoods. The report concluded that various resources (human, physical, social and natural) were available within Zambia which, with improved strategies, could be used to build people's livelihoods and help promote human development.

The 2003 ZHDR addressed the eradication of extreme poverty and hunger.

The preparation of National Human Development Reports is guided by corporate principles that include national ownership, independent analysis and participatory and inclusive preparation. Each theme is selected following a process of consultation with representative stakeholders and is picked for its merit to provide the country an opportunity to reflect and hold dialogue over an issue that touches on the well-being of the majority of Zambians.

affecting the achievement of the Millennium Development Goals (MDGs). As the economic environment improves and development policies begin to focus more strongly on people, Zambia is beginning to make some progress in achieving the MDGs. Nevertheless, there is a real danger that this progress will be undone if the response to HIV and AIDS is not intensified and won. HIV and AIDS is a threat to each of the eight MDGs and reversing its spread forms a central platform for Zambia to achieve the goals.

The third angle (Chapter 3) is the main focus of the ZHDR as it presents information on household capacity to respond to HIV and AIDS. The HIV and AIDS epidemic is re-shaping Zambian households in fundamental ways including those not hosting persons living with the virus as they adjust to its various consequences.

The household must be recognised as the first and central line of action against HIV and AIDS. If this is to happen, we need to understand better the manifold ways in which the epidemic affects households, how it is shaping their vulnerability context, what their coping strategies are and whether these point to areas we should be seeking to build upon and what the impact on livelihood outcomes has been.

The 2007 ZHDR aims, as was the case with the previous reports (see Box 1.1), to serve as an advocacy tool and a source of information in the ongoing debate and dialogue on the critically important national issue, while also providing the basis for some specificity with regard to the implementation of strategies outlined in national development plans.

Human development, HIV and AIDS interface

We should be concerned about HIV and AIDS because it is a serious blow to human development. The annual global UNDP Human Development Report (HDR), first published in 1990, advocates a human development approach to development that puts the well-being of people at the centre. Human development is defined as a process of expanding choices for people to live the kind of life they value. The range of choices is potentially unlimited and varies from individual to individual.

Nevertheless, there is consensus that four fundamental choices are essential for people to find fulfillment - to lead a long and healthy life, to be knowledgeable, to have access to the resources needed to have a decent standard of living and to participate in the life of the community. There are many other choices besides these four. It is, however, agreed that these four choices, and when taken together, are a necessary gateway to other choices.

On the following pages, this Report provides a definition of each of the choices as well as a discussion on how HIV and AIDS undermines each of them.*

HIV and AIDS is undermining the choice to longevity

To lead a long and healthy life is considered a common choice as people would like to avoid dying young as long as the long life that they lead is healthy. A long healthy life to be achieved must be supported by good nutrition, a clean and hygienic environment, access to good housing, clean and safe water, access to information, and access to health facilities.

The impact of HIV and AIDS is most obvious here as it results in higher morbidity. Chapter 5 provides evidence of how HIV is undermining the choice to longevity by leading to higher infant and child mortality, maternal mortality and deaths from opportunistic infections. An evident way in which HIV and AIDS is negatively affecting human development is by diminishing access to health services. The epidemic places a demand on health services, affecting the extent to which other health needs can be met by the sector. For example, an

** For detailed explanation of the human development concept and how its different measures are calculated, please refer to the technical annex on pp. 94-100.*

increasing share of hospital beds - currently estimated at 50 percent - is being allocated to AIDS-related illnesses. Medical personnel have also been hit hard, depleting further their already low staffing levels.

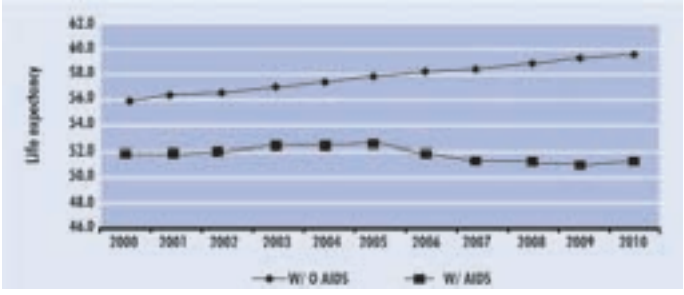
As captured by life expectancy projections, HIV and AIDS was estimated to have had lessened life expectancy in Zambia by about 4 years in 2000, and the figure is projected to rise to about 8 years by 2010 (see Figure 1.1).

HIV and AIDS is undermining the choice to be knowledgeable

To be knowledgeable is another common choice to mankind. No one chooses ignorance and to be cut out from the world of information. There are many ways through which this choice is acquired.

Fundamentally, people must learn and acquire the capacity to access and make use of available information. Formal education imparts knowledge and also builds people's capacity to acquire the knowledge they can apply in the pursuit of other fundamental choices of life. It is an important means of fulfilling this choice. We should not, however, discount the informal learning taking place through human interaction in the household, community and broader society including at the workplace. Intergenerational transfer of knowledge and skills in the family and society, access to an unfettered media and indigenous ways of teaching and learning are also important in fulfilling the choice to be knowledgeable.

Figure 1.1: Projected life expectancy with and without HIV and AIDS, 2000-2010



GRZ, 2003: Population Projections Report

According to evidence in chapters 3 and 5, HIV and AIDS is indeed an affront to the choice of being knowledgeable. It is diminishing opportunities to a sound formal education. Through increased deaths of teachers, class sizes are increasing to the point that children do not get adequate attention. Educational prospects of children orphaned by AIDS deaths are also adversely affected. Children in such situations suffer from many conditions that make effective learning difficult. The psychosocial impact of seeing a parent ill for a prolonged period, sometimes even being forced to take care of a terminally ill parent, undermines the ability of these children to learn even before they are orphaned. There is also evidence that children with parents at an advanced stage of HIV infection are stigmatised at school, affecting their effective learning.

HIV and AIDS is robbing the new generation of knowledge and skills that are passed on from one generation to another. Children are losing parents at tender ages, where they cannot be expected to have had any meaningful knowledge and skills passed on to them from their parents. Other children are growing among fellow children, in the absence of elders to pass intergenerational knowledge and skills to them.

HIV and AIDS is undermining decent standards of living

To enjoy a decent standard of living as a human development choice constitutes freedom from poverty and the ability to acquire the material necessities of life to support an acceptable lifestyle. A decent level of income is needed to support this choice. Having a job that earns one, and one's household, a decent living is fundamental. This choice is intricately linked to the other choices as it opens a window to access other human development supporting choices such as food, education, health, housing, clean water and sanitation. Improvements in per capita income seen in chapters

2 and 5 indicate that the economic environment is becoming more supportive to a decent standard of living for Zambians. However, household level evidence points to the fact that HIV and AIDS is undermining efforts to have the benefits of economic improvements become broad-based. The epidemic is feeding poverty as it devastates people's livelihoods. The epidemic has infused new dynamics into the vulnerability context of Zambian households and communities. It is devastating all the assets (human, financial, natural, economic and social) that households use in pursuit of livelihood outcomes. At the same time, the capacity of institutions to support households to upgrade their standards of living is being devalued in various ways, chief of which is the loss of labour due to death and absenteeism.

HIV and AIDS is undermining the choice to participate in the life of the community

Freedom to feel appreciated by the society to which one belongs is a fundamental choice constituting one's well-being. It is supported by many aspects. First is the freedom of association and to belong to any grouping promoting legitimate interests of the society. Second is its twin freedom of expression as long as this does not take away from the rights of others or society at large. Third is the choice to be useful to the community by contributing to its collective advancement. Fourth is to be accorded dignity and respect in the community. Fifth is the right to feel protected against arbitrary interference in one's course of life by the more powerful in the society.

Regrettably, HIV is endangering these aspects that enable people to participate in the community in a number of ways. The stigma associated with HIV and AIDS is a serious encroachment on people's dignity and self-respect. The psychosocial adverse effects it brings about make it difficult for people to meaningfully participate in and enjoy the life of the community. People living with HIV and AIDS face physical and social isolation from family, friends, and community (Nybade, et al, 2003). In the process they lose some of their rights and access to resources and livelihoods. As they internalise these experiences, they consequently feel guilty, ashamed and inferior. In extreme cases, they isolate themselves and lose hope. The poverty induced by HIV and AIDS also undermines the dignity and self-respect of HIV infected people and their close relations. They tend to forfeit essential ingredients for feeling at ease with oneself and being confident to pursue meaningful relationships with others. Some times HIV-affected households, being preoccupied with survival, tend to have little time left to participate in the various aspects of the life of their community even if they wished.

Putting the household at the centre of the HIV and AIDS response

Many HIV and AIDS initiatives recognise the importance of the household. However, very few have placed the household clearly at the centre although the household is widely recognised as the frontline unit for care giving and psychosocial support.

Zambia was one of the first countries to recognise the weaknesses of established health institutions in providing long term care to people with AIDS-related illnesses. Zambia championed the concept of home-based care, which is now internationally accepted as an important model in meeting some of the challenges of HIV and AIDS, particularly as the pandemic threatens to overwhelm the already weak health care institutions.

In initiatives focused on dealing with orphans and other vulnerable children, the household is recognised as playing a key role and special focus is placed there. In particular, over time there has been a growing view that institutionalised care is perhaps not the best option and that the

household is better placed to play this role. However, most initiatives that recognise the household as the centre of the HIV and AIDS response are often driven by individual organisations and lack a national character. Their efforts are often on a small scale, isolated and disconnected. They are also without a framework that reflects the multidimensional nature of not only the problem of HIV and AIDS but also the household that they wish to support.

The multisectoral approach to respond to HIV and AIDS, of which Zambia is playing a championing role in promoting and refining, recognises the multidimensional nature of HIV and AIDS. The approach has been spearheaded by NAC and a number of major funding organisations and agencies have bought into it. It is an attempt to coordinate different ministries and other agencies providing services to the Zambian population so that efforts to respond to HIV and AIDS are integrated and holistic. Zambia is a frontrunner on the continent in this regard.

There is, however, a growing view that the multisectoral approach so far has focused mostly on sector level institutions and is doing little to deal with micro level institutions, of which the household is part. It is true that strengthening the capacity of sector institutions to respond to HIV and AIDS will help them deal better with households and other organisations at the micro level. This assumption is undermined by the centralised Zambian governance system, where sector level institutions are not accountable to people at the grassroots. There is little effort to engage stakeholders and devise workable approaches with them that would strengthen households' capacity to halt the spread of HIV and AIDS and mitigate its impacts.

There are a number of merits to focusing on the household. The most obvious is that, as already recognised, the immediate impacts of HIV and AIDS are at the household level. These impacts are remitted through various transmission mechanisms and then by aggregation adversely affect sectors and the macro level. To meaningfully mitigate impacts of HIV and AIDS, the greatest leverage points are at the household level (see Figure 1.2). For responses to HIV and AIDS to have greater effect, they must be rooted in the realities found at household level.

Understanding these household level impacts would force us to think and respond holistically to what is obviously a multidimensional crisis. Although not always easy, looking at the household provides us with insights into the multidimensional nature of the epidemic and the various ways in which it should be dealt with. The needs of a household transcend sectoral boundaries. For initiatives to be effective, they would need to be dimensional. Looking at HIV and AIDS from household perspective would illumine the roles of different players and how the diverse efforts could be coordinated and contribute to defeating a common problem. We do not need to dismantle the institutions already playing their role but to reorient the effort by giving it a framework that pulls the different strengths together. The household is the easiest point around which such a framework can be built.

There is an additional problem that a focus on the household helps us to resolve: It has often been difficult to know the impacts of various initiatives. The call to take a fresh look at the household as the entry point in tackling HIV and AIDS arises from the growing disquiet that progress made so far is not measuring to the effort and amount of resources poured into the response to the epidemic. Perhaps the problem is just too immense and we are actually not doing enough. Most likely we are not being efficient enough in focusing the effort where it matters most. Focusing on households helps us to isolate the impacts of the initiatives better and measure them. Related to this is that sector level

institutions are able to understand better the vicious cycle between HIV and AIDS and the attainment of their sector mandates only by looking at household level impacts of HIV and AIDS. This should help to identify the necessary entry points for various sectors. An example of how HIV and AIDS can adversely affect the achievement of sector goals from the household's perspective is provided in Figure 1.3 on p. 16. Household level responses to HIV and AIDS should focus on turning the vicious cycle to a virtuous cycle.

Figure 1.2: Leverage points by level

Governance system that supports accountability and participation

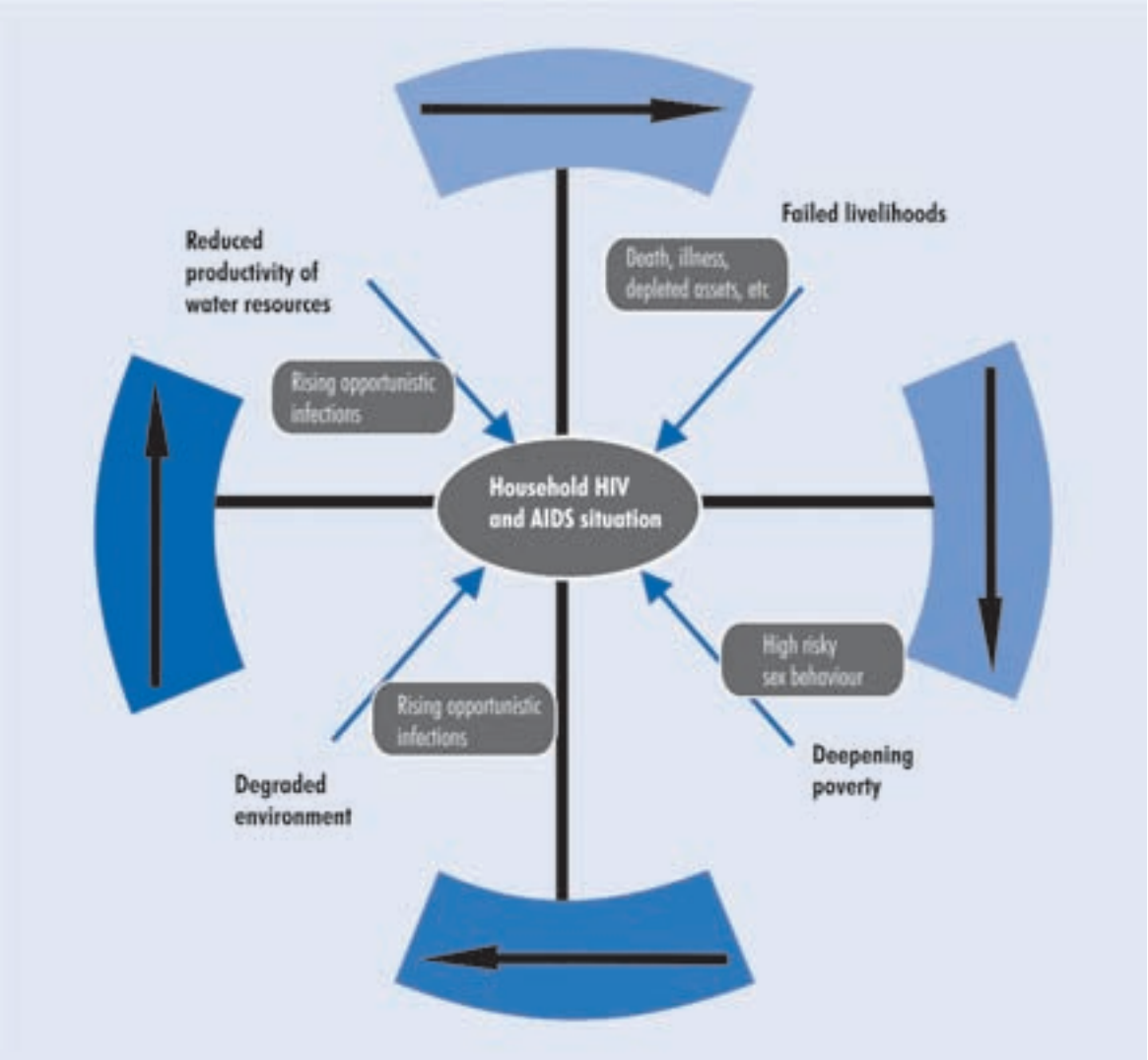
If households are to be placed at the centre of the response to HIV and AIDS, there is a need to reconstitute Zambia's governance system. This is currently highly centralised, which creates significant gaps in the service delivery capacity of structures closest to households. Local authorities which are supposed to provide a framework for development coordination at sub-national levels have over the years been undermined by successive administrations. In turn this has undermined effective participation of local people in shaping the nature of development in their area. District and sub-district officials are largely unaccountable to the people on the ground.

The dual structure of Zambia's governance system at district level does not favour accountability and participation. Each district has a devolved local elected government with powers and functions defined by the Local Government Act of 1991 and as amended in 1996. But there are also sector ministries accountable to central government through their headquarters in Lusaka. A District Development Co-ordinating Committee (DDCC) has been put in place in an attempt to co-ordinate activities of the two structures. At first these were chaired by the district secretary before the appointment of district administrators, later renamed district commissioners. The District Secretary now merely represents the Council (elected body of councilors) on the DDCC which no longer has power to override any decision passed by the Council. The Council has no legal or administrative power over the line ministries.

Most of the development work is carried out by line ministries because they are more resourced than councils. However, the Local Government Act has given local authorities the responsibility to undertake wide-ranging development interventions in the districts. Local authorities, however, face serious resource constraints to fulfill their developmental responsibilities due to: (i) The erosion of the local governments asset base through various actions by the central government over the years; (ii) The declining and erratic disbursements of grants from central government; and, (iii) The poor macroeconomic situation that has undermined the capacity of the Zambian population to pay for services provided by local authorities.

Participation of the people in shaping their affairs is limited by absence of elected or delegated local government bodies at sub-district level. Wards are used for only electing councilors. Combined with the fact that local governments have little resources for meaningful development, local citizens

Figure 1.3: HIV and AIDS and water resources - vicious cycle



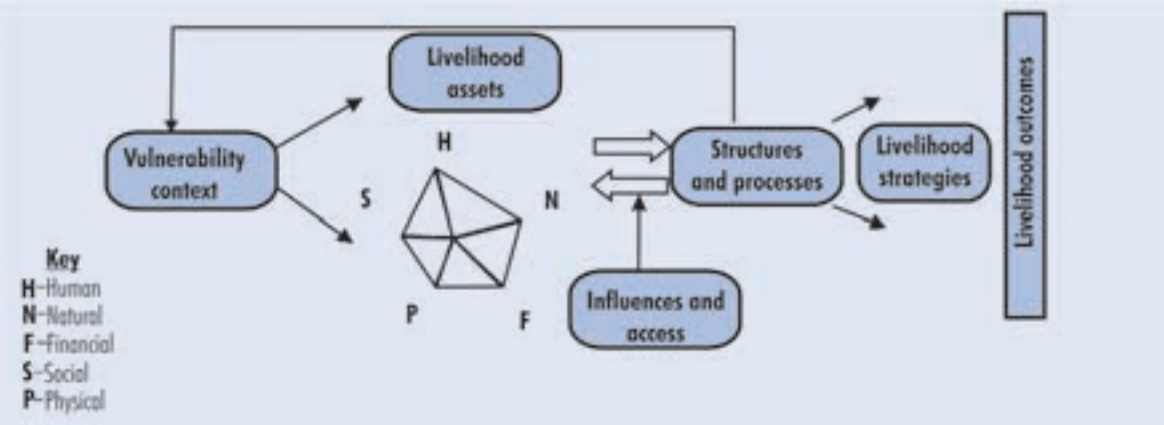
are generally apathetic to the politics and affairs of local authorities. They are at the same time not in a position to hold officials of the line ministries accountable.

Given the above inadequacies in service delivery, participation and accountability, efforts have been made to bridge the gap in two main ways. First, line ministries have been building structures at district and sub-district levels that allow for more accountability of officials and participation of the people. Second, some ministries, such as health, education and to a certain extent agriculture, are having some of their functions devolved to the local authorities.

Various donors have given their support to the decentralisation process. The community and district level structures created by NAC have been adopted to help the identified gaps in responding to HIV and AIDS. Non-governmental organizations have also built their own participatory structures at the district and sub-district levels for the same reasons.

Inadequacies in the current governance system with respect to how it facilitates development at the local level have been broadly acknowledged. To that effect, the Zambian Government in 2002 adopted a National Decentralisation Policy that intends to end the presence of most sector ministries at the district level. They will instead have their functions integrated in local government structures. However, con-

Figure 1.4: Sustainable livelihoods framework



cern has been expressed at the slow pace at which decentralisation is being implemented. Some sectors are stating that there is little political will to push such an aggressive agenda forward. The Draft Constitution of 2006 has included democratic decentralisation as a major aspect of the modified governance system. This came about after many submissions to the Constitution Review Commission that demanded for democratic decentralisation, meaning that there is an overwhelming support by the people themselves for such a governance system. Such a governance system will help attempts to bring households at the centre in the response to HIV and AIDS.

Framework for building household capacity to respond to HIV and AIDS

In searching for a framework that helps to expose the various impacts of HIV and AIDS on the household and identify entry points for helping households deal better with the epidemic, we can rely on the sustainable livelihoods approach (SLA) discussed extensively in the 2000 ZHDR.

The SLA framework opens a window of seeing how the epidemic is devastating the capacity of households to cope with shocks. The sustainable livelihoods framework is provided in Figure 1.4 above and the meaning of its various terms in Box 1.2 on p. 18.

In summary, this framework states that households need to access and utilise assets in order to achieve beneficial livelihood outcomes - increased household food security, higher incomes, well-being and reduced vulnerability to shocks such as natural disasters. In this sense, the SLA amplifies upon the basic needs approach, a development approach that has been used to define the minimum requirements of people to gain a dignified existence. These assets gain their value through the prevailing social, institutional and organisational environment (structures and processes) that influences and shapes the livelihood strategies (ways of combining assets) adopted in pursuit of beneficial livelihood outcomes.

All these aspects exist together in a vulnerability context which is defined by shocks such as natural calamities, long-term trends including economic decline and seasonal effects like annual food availability. The vulnerability context determines the extent to which households can actually obtain beneficial livelihood outcomes.

Using the SLA, we are able to expose the many dimensions that enable households and communities achieve the kind of livelihood outcomes they desire and how HIV is affecting them. From the evidence provided in Chapter 3, all the assets at the disposal of households are being seriously devastated by the epidemic. The asset pentagon in the SLA is the heart for gaining

beneficial livelihood outcomes for households. Regrettably, structures and processes as well have become less supportive to households in accumulating and applying these assets. This is deepening household vulnerability, making them less able to cope with shocks. Therefore, whereas in the past households recovered from crises such as droughts, they are now less capable to do so mainly because the vulnerability context has worsened.

Defining an HIV and AIDS affected household

The effects of HIV and AIDS on livelihoods vary from household to household. Not every HIV and AIDS affected household is vulnerable as some are able to cope with shocks even better than some non-affected households.

A number of household-specific factors can alter the way HIV and AIDS shapes the vulnerability context of a household. In

Box 1.2: Terms related to the sustainable livelihoods approach

Livelihoods: Livelihoods are defined as the activities (jobs, work) that people do to earn a living. The freedom to pursue livelihoods that people choose is dependent on people's capabilities which in turn are dependent on the assets at their disposal. There are five livelihood categories:

1. Human: the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives
2. Social: the social resources upon which people draw in pursuit of their livelihood objectives, including networks, membership of formal and informal groups, and relationships of trust and reciprocity
3. Natural: the natural resource stocks from which resource flows and services useful for livelihoods are derived (e.g. land, trees, water sources)
4. Physical: comprises the basic infrastructure and producer goods needed to support livelihoods (e.g. buildings, roads/ transport, water supply, communications)
5. Financial: the financial resources that people use to achieve their livelihood objectives, including stocks (savings, convertible assets, including livestock) and flows of income

Livelihood strategies: Livelihood strategies are ways in which households combine activities, assets and entitlements in order to obtain desired livelihood outcomes such as increased household food security, higher income, reduced vulnerability to shocks and sustainable use of natural resources.

Sustainability of livelihoods: Sustainability of livelihoods is a key concept in the sustainable livelihoods approach and refers to specific characteristics and values in relation to the way people carry out activities as well as utilise capital and entitlements. There are five characteristics and values constituting sustainability:

1. Resiliency - the ability to cope with and recover from shocks and stresses.
2. Economic efficiency - the use of minimal inputs to generate a given amount of outputs.
3. Ecological integrity - ensuring that livelihood activities do not irreversibly degrade natural resources within a given ecosystem.
4. Social equity - which suggests that promotion of livelihood opportunities for one group should not foreclose options for other groups, either now or in the future.
5. Adaptive governance systems in relation to power dynamics, dispute resolution, devolutionary decision making on entitlement and resource management.

Sustainable livelihoods, therefore, occur where activities and assets of a population are combined in a way that maximises resilience, economic efficiency, ecological integrity, and social equity. This definition takes on specific and operational meaning mainly at the household or community level.

ZHDR 1999/2000

theory there is an infinite array of permutations of these factors. It is nevertheless possible to isolate four factors: (i) the specific nature of the HIV and AIDS situation the household is having to respond to; (ii) the livelihood systems pursued by the household; (iii) the location of the household; and, (iv) the quantity and quality of assets at the disposal of the household.

Household HIV and AIDS situations differ and so do the effects. Some examples include a household hosting a chronically ill patient, a household experiencing an AIDS-related death and a household hosting orphans. During chronic illness, the main effects are loss of labour due to illness or increased caring and increased requirements for spending on health care. Death leads to an immediate loss of labour, but can lead to other changes in household composition that can positively or negatively affect labour availability. There can be changes in livelihood patterns as remaining members try to optimise their available assets. This can lead to successful coping, or - following a period of unsustainable response (e.g. by selling productive assets) - this could ultimately result in the dissolution of the household. The economic effect of taking in an orphan depends on the composition of the household and on the age, gender and skills of the incoming orphan, which determines the net contribution of the orphan to the household.

HIV and AIDS impacts will differ between households in different livelihood systems. It matters whether household members, especially the head, are in formal or informal employment or not. This may predispose the extent of the social security benefits entitlements. As workplace HIV and AIDS policies become more widespread, households in formal employment are likely to have the impacts of the epidemic mitigated in a way that is not possible for households in the informal sector.

Households in agriculture-based livelihoods can quickly descend in a downward spiral as labour shortages are intensified. Within agriculture, however, households that depend mainly on livestock rearing may cope better with the effects of the pandemic as these activities tend to be less labour-intensive.

Fishing households, given the migratory nature of their livelihood system and the level of interaction with fish traders from urban areas, have been known to be highly susceptible to the epidemic. Indeed location by predisposing the chances of one being infected and the nature of livelihood opportunities available is an important variable producing the differential impacts of HIV and AIDS on households. HIV and AIDS will affect households in urban and rural areas differently.

The other important factor determining how HIV and AIDS will affect households is the quantity and quality of assets at the disposal of a household. These can enable survivors in a household sustain or fail to sustain themselves.

Also, depending on who has an AIDS-related illness or who has died due to the infection, households may adjust successfully if other household members can take up their roles. This is difficult when it is one or both of the parents who succumb to AIDS-related illness. Zambian households have a very high dependency ratio. The other household members are likely to be at a stage in life whereby stepping out to ameliorate the effects is likely to come at a high price. It could principally affect adversely the education prospects of the young household members.

Adjustment costs may be minimised by drawing down on savings. This is not, however, an option for many Zambian households in a country where 68 percent of the population lives below the poverty line. In any case, this is only likely to be a short term solution and not sustainable in the medium to long term.

In devising programmes that address household level impacts, analysis should not

be over-generalised. Detailed differentiation of households in varying situations is needed to design appropriate responses. Perhaps this reinforces the need to work with adaptive governance structures existing within the communities themselves who are able to recognise the varying situations between households. One solution will not fit all.

HIV and AIDS and the attainment of MDGs

A comparison between the Millennium Development Goals Report (MDGR) for 2003 and 2005 shows that Zambia is making some progress in attaining the MDGs. The MDGR 2003 reported that Zambia was unlikely to meet the targets on halving the proportion of people living in extreme poverty and hunger. However, the MDGR 2005 reported that Zambia was likely to attain these targets. The prospects for the attainment of universal primary education, gender equality and women empowerment, and halting and reversing the spread of HIV and AIDS also improved from "potentially" to "likely". Out of the ten targets reviewed in the MDGR, Zambia in 2005 had five targets that were likely to be attained compared to none in 2003. Nevertheless, there was also deterioration in the prospects for attaining two targets, i.e. reduction in maternal mortality and environmental sustainability. The prospects for the other three targets remained unchanged.

The prospects for attaining the MDGs are perceived to have improved. The MDGR 2005 attributes this to improvement in the state of national support. There is reason for more optimism as developments in 2005 that strengthened the potential for better national support, not taken into account at the time of preparing the MDGR 2005 start to bear fruit. This is mainly the attainment of the HIPC completion point in April 2005, the substantial debt forgiveness the country has received as a result and rising economic prospects riding at the back of soaring copper prices and production. It is clear from a goal by goal assessment that responding to HIV and AIDS is an essential strategy for attaining MDGs by 2015 because the epidemic undermines each of the goals in a multiplicity of ways.

Millennium Development Goal 1: Eradicate extreme poverty and hunger

The goal is to eradicate extreme poverty and hunger. In terms of quantitative targets, this entails reducing by half, between 1990 and 2015, the proportion of people living in extreme poverty and the proportion of people who suffer from hunger. In 2004, 53 percent of Zambians lived in extreme poverty, a small drop from the 58 percent recorded in 1998. The target, which is to reduce this proportion to 29.1 percent by 2015, is still a long way off. This is because poverty deteriorated in the 1990s over the 1990 base year figure. Also 23 percent of children less than five years old were underweight in 2004, dropping from 28 percent in 1998. According to the global standard, the target is to reduce this figure to 13 percent by 2015. This is potentially achievable if Zambia has successive good harvests for even five years.

HIV and AIDS is related to poverty and hunger in a vicious cycle and tend to reinforce each other. This happens through many channels. As Chapter 3 demonstrates, poverty is one of the factors driving the spread of HIV because it sets the scene for greater susceptibility to infections. The feminisation of poverty, driven by discrimination against women in access to and control of resources for their pursuit of viable livelihoods, means that women are more susceptible in this regard. Once infection occurs, affected people's livelihoods are ravaged, thus festering poverty. The widening vulnerability context due to HIV and AIDS means that people are finding it far more difficult to cope with and recover from shocks such as droughts, floods and sudden increases in food prices. What this means is

that any gain in the fight against poverty will be transitory if there are no substantial gains in responding to HIV and AIDS.

An important aspect that should be considered is the impact of good nutrition in the efficacy of the roll out of anti-retroviral therapy for people living with HIV and AIDS (PLWHA). Even without HIV and AIDS, people's immune functions are undermined by malnutrition. However, malnutrition is a much more complex state for people living with HIV because of the added stress placed on an already weakened immune system and may complicate treatment. Deficiencies in micronutrients are common in PLWHA, a situation that accelerates the death of immune cells and increases the replication of HIV. Good nutrition improves body weight and body cell mass and CD4 cell counts. This reduces the incidence of opportunistic infections and increases survival in adults. Therefore, PLWHA need to maintain an optimal nutritional status at the time when their immune system is being undermined by the virus. Without good nutrition, weight loss and other complications are bound to follow.

Moreover, good nutrition is important for the efficacy of medication as it reduces side effects, improves tolerance to treatment and reduces some obstacles to adherence (M. Fenton and S.A. Meyer, 1998). It delays the progression of HIV and thus reduces the cost of medical care. Good nutrition thus allows the PLWHA to remain productive as they pursue their livelihoods. For all these reasons, nutritional therapy for people living with HIV is believed by many as a critical supportive co-treatment for HIV and AIDS. Some people have suggested that "clinical standards of care that include nutritional services will soon be the foundation for HIV disease management" (S.A. Meyer, 2000).

Millennium Development Goal 2: Achieve universal primary education

Goal 2 is to ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary

Table 1.1: Trends in MDG indicators

Millennium Development Goal indicator	Baseline value 1990	2003 MDGR	2005 MDGR	2015 target
Proportion of people living in extreme poverty (percent)	58.2	58.0	53¤	29.1
Underweight children (percent)	25.0	28.0	20.1¤	12.5
Stunted children (percent)	40.0	47.0	50.0¤	20.0
Wasted children (percent)	5.0	5.0	6.0¤	2.5
Net enrolments in primary education (percent)	80.0	76.0	78.0	100
Proportion of pupils starting grade 1 reaching grade 5 (percent)	64.0	73.0	82.0	100
Literacy rate of 15-24 year olds (percent)	79.0	75.0	70.0	100
Ratio of literate females to males	0.98	0.98	0.95	*
Share of women in wage formal employment (percent)	39.0	35.0	35.0	*
Infant mortality rate	107.0	95.0	*	36.0
Maternal mortality rate	649.0	729.0	*	162
ESS trends of HIV infection among ANC (percent)	20.0	19.1	*	20.0
ZDHS HIV prevalence	*	16.0	*	*
New cases of malaria per 1,000	121	377	*	121
Malaria fatality rate per 1,000	11	48	*	11

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Notes: ¤ Updated with the 2004 LCMS data * No data presented in the MDG Reports.

schooling. According to the localised targets for this MDG, Zambia should increase the net enrolment ratio to 100 percent for both sexes between 1990 and 2015 from 80 percent, the proportion of pupils starting grade 1 who reach grade 7. There has been an upward trend in the indicators in the new millennium unlike the downward trend seen in the 1990s. This is laying a good ground for improvements in literacy levels in the 15 - 24 years old age group, which deteriorated from 75 percent in 1990 to 70 percent in 2000.

By negatively affecting both the supply (less school teachers as a result of deaths and absenteeism and the burgeoning school classes) and the demand (dropping enrolment and survival rates of HIV-affected pupils), HIV and AIDS is obviously complicating efforts to attain universal primary education by 2015 in Zambia.

By undermining educational attainment, the spread of the epidemic is also being fuelled further. The term "education vaccine" was coined in 2000 by some researchers (Vandemoortele and Delamonica, 2005) because it was seen as the most potent tool available for halting the spread of HIV. Sadly, this was seen to go against available evidence because the epidemic was as prevalent among the educated as those less educated.

In some cases as in Zambia, some categories that represent the educated of the nation such as teachers and medical workers appeared to be the worst affected. However, this applied mostly to the initial stage of the epidemic (see Figure 1.5). This is because the main channel through which HIV and AIDS spreads initially exposes the elite who are likely to be more mobile and living in urban areas. After some time, as they receive better information about the virus, they are more likely to take steps to lessen risky behaviour than communities less exposed to information.

HIV and AIDS is linked to education in a vicious cycle to the attainment of universal primary education. Stopping the spread of the virus will help to achieve MDG 2. In turn, the achievement of MDG 2 is a potent tool for stopping the spread of HIV. The mainstreaming of HIV and AIDS concerns in the education sector should thus take this into consideration.

Millennium Development Goal 3: Promote gender equality and empower women

MDG 3 is to promote gender equality and empower women, with particular emphasis on the elimination of gender disparity in education. The specific targets are bringing the ratio of boys to girls in primary and secondary school to 1 by 2015. The other target is to raise the ratio of literate females (aged 15-24 years) to males to 1.

Elimination of society entrenched discrimination against women should lead to raising the proportion of seats held by women in Parliament to 30 percent in 2015 from 6 percent in 1990.

HIV and AIDS undermines educational attainment in general, but this attribute is even much more aggressive against the educational attainment of girls, making progress in MDG 3 even more difficult.

The prevalence rate and the resulting impact of the epidemic are not gender neutral. As evidence provided in Chapter 3 indicates, girls aged 15-19 years are more likely to be infected by HIV than boys. This is attributable to the early onset of sexual activity among girls than boys, unfortunately often with older men (the so called sugar daddy syndrome) who may already be infected. It is also due to the prevalence of sexual abuse of girls by older men who are often well known to the girls. This is shrouded in silence and denial by those around. Girls are also more disadvantaged from the resulting consequences of the epidemic than boys. They are more likely to drop out of school to help relieve the labour shortages in the home due to the death or chronic illness of an adult. Even where they continue, they are likely to

attend school more intermittently than boys on account of this.

Millennium Development Goal 4: Reduce child mortality

The quantitative target under MDG 4 is to reduce by two thirds, between 1990 and 2015, the under-five mortality rate. The localised targets are to reduce under-five mortality ratio from 191 per 1,000 live births in 1992 to 63 in 2015 and infant mortality ratio from 107 per 1,000 live births to 36 respectively. Zambia has one of the highest child mortality rates in the world. To make progress in human development, the country should make serious effort to bring child mortality down.

HIV and AIDS is complicating the attainment of the MDG on child mortality. Firstly, babies born to HIV-positive mothers risk getting infected through mother-to-child transmission. It is estimated that about 40 percent of children born to HIV-infected mothers get infected with the virus. Most of these children are likely to die before the age of five. HIV and AIDS threatens the survival of children also in other ways. HIV and AIDS, when linked to poverty and hunger in a vicious cycle as seen above, undermines the capacity of households to provide adequate nutrition to children. This makes children susceptible to many diseases and increases the likelihood of dying before the age of five.

The health seeking behaviour of parents, infected with HIV or experiencing AIDS-related illnesses, for their children is low. This is again attributable to rising poverty in the household linked to HIV and AIDS, loss of strength on the part of parents to access health facilities especially where they have to cover long distances and have to wait for long hours before obtaining the service, competing demands in a situation where labour constraints have been accentuated by chronic illness and adverse psychosocial effects whereby such parents lose hope about themselves and their children and are not motivated enough to live. The diminishing capacity of the health system to provide quality health service due to HIV and AIDS is also threatening the survival of children.

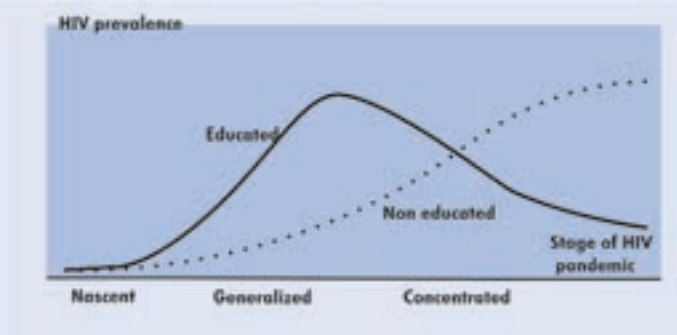
Millennium Development Goal 5: Improve maternal health

This is one of the two MDGs unlikely to be attained by the 2015. The target is to reduce maternal mortality ratio by three-quarters, between 1990 and 2015. This translates into reducing to 162 maternal deaths per every 100,000 live births in 2015 from 649 in 1996. However, the maternal mortality ratio rose to 729 deaths per every 100,000 live births in 2002. There are many factors contributing to these declining prospects. These include inadequate access to health facilities that forces many women, especially in rural areas, to deliver at home. HIV and AIDS should be ranked as one of the leading factors. Where a woman is infected, her health during pregnancy is compromised raising the chances that she might die during childbirth.

Millennium Development Goal 6: Combat HIV and AIDS, malaria and other diseases

Besides halting and beginning to reverse the spread of HIV, the MDG 6 also requires that countries should have halted by 2015, and begun to reverse the incidence of

Figure 1.5: HIV diffusion by level of education and stage of the pandemic



GRZ, 2003: Population Projections Report

malaria and other major diseases. The 2005 MDGR lists the target on HIV and AIDS as one of those likely to be achieved given the effort that has gone into containing the epidemic. It also indicates that there is potential to achieve the target on malaria and other major diseases. Besides malaria, the incidence of tuberculosis is taken as an indicator for other diseases.

The link between HIV and AIDS and other diseases is obvious because HIV and AIDS suppresses the body's immune system, thereby rendering it susceptible to opportunistic infections. Therefore, the presence of the high HIV prevalence is escalating the incidence of so many other diseases. A key example is the rising incidence of tuberculosis. More than 60 percent of tuberculosis cases in Zambia are related to HIV infection.

Despite the improved prospects for responding to HIV and AIDS, the ancillary consequences are likely to continue to increase and cause more pressure on Zambia's social fabric. Challenges to effective response include a lack of a vaccine and cure, early sexual activity, low condom use, low uptake of voluntary counseling and testing and the harsh stigma associated with being HIV positive, which prevents people to talk openly about their status.

Millennium Development Goal 7: Ensure environmental sustainability

Goal 7 has three targets. Firstly, this MDG requires that Zambia and other countries integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources. The second target is to halve the proportion of people that do not have sustainable access to safe drinking water, by 2015. The third target is to attain significant improvement in lives of at least 100 million slum dwellers.

Zambia has a rich biodiversity but this is under threat from poor management. The HIV and AIDS epidemic is also inducing a number of negative impacts on environment. These negative impacts include:

1. The loss to death, as a result of AIDS, is adversely affecting the intergenerational transfer of capacity, skills and knowledge in natural resources management, accumulated by communities over many years. The loss of traditional knowledge of natural resource management is leading to more inappropriate ways of using these resources.

2. There is increased reliance on natural resource use due to chronic illness and death in families affected by HIV and AIDS. The loss of income and labour means that households have little alternative sources of livelihood other than the exploitation of natural resources such as bush meat, medicinal plants and charcoal burning. The rise in charcoal burning as a safety net, for example, has been contributing to deforestation and threatening headwaters, causing loss of topsoil along the river banks and silting water channels.

3. Property grabbing and gender inequality in traditional land tenure systems is leading to a rise in demand for new land as families are forced to resettle after the death of the husband putting further pressure on the environment.

4. Institutions important for the management of natural resources at both local (traditional) and higher levels are losing their capacity at a fast rate due to death and illnesses induced by HIV and AIDS. The epidemic is resulting in increased absenteeism, lower productivity, a rise in personnel costs related to recruitment and training and loss of skills and accumulated experience.

Effective natural resource management is indispensable to Zambia's strive to mitigat-

ing HIV and AIDS. This can be seen from at least four ways:

1. Natural resources are key to the building of sustainable livelihoods and to the reduction of widespread poverty in the country. This is important to the reduction of risky behaviour such as sex work, which increases susceptibility to infection.

2. With reduced poverty and increased food security, the on going rolling out of anti-retroviral therapy (ART) is likely to have better results. Patients on ART are likely to have better health outcomes as measured by the body mass index (BMI) and the CD4 cells, seen from reduced opportunistic infections.

3. A clean environment is key to hygiene which in turn reduces opportunistic infections and helps people with AIDS-related illnesses to lead a more healthy life and lessen the social and economic consequences of the epidemic.

4. Women are intricately linked to natural resource use. They face a higher risk to HIV infection and bare a greater burden of the consequences of the epidemic. Good natural resources management offers a good opportunity to empower women with the capacity to respond to HIV and AIDS and cope with its adverse impacts in the household.

Conclusions

A critical analysis shows that HIV and AIDS is a major human crisis Zambia has to cope with. It has a devastating effect on all aspects of human well-being whether viewed from the fundamental choices for a kind of life that people would value or livelihoods of their own choice. HIV and AIDS is complicating Zambia's efforts to meet the Millennium Development Goals. At the household level, this translates into reduced capacity to overcome and cope with the epidemic and indeed make progress in welfare. It is thus impossible to envisage meaningful development if HIV and AIDS is not tackled aggressively. In tackling HIV and AIDS, the household must be brought under very sharp focus as the central unit for responding to the epidemic.