

THEMATIC CONTRIBUTION

**Promising responses
to HIV and AIDS in
agriculture, rural development,
self-help and social protection**

Misereor 2010

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Foreword

HIV and AIDS have various implications on the life of individuals, families, communities and societies. HIV and AIDS are not “merely” a health but also a development issue as they reduce chances for development and increase poverty. People living with HIV, households headed by women, elderly or orphans often have barriers to perform like others not affected by HIV and AIDS. Therefore they need specific attention and tailor-made responses in the different development sectors focusing on their needs, abilities and skills.

One of the main pillars of Misereor’s work and its partners’ in different countries in Africa, Asia and Latin America is the reduction of poverty and assistance of the poor and the marginalized. Misereor and its partners have to take HIV and AIDS into account in development projects.

This document was conducted as a desk study for the revision of the Misereor guide “Responding to HIV and AIDS – A practitioner’s guide to mainstreaming in development projects” (published 2010). It provides useful information and practical examples of such responses in the fields of agriculture, rural development, self-help and social protection. It aims to invite Misereor partners and others working in these fields to reflect on their current approaches and to encourage them to respond in their core business to the challenges brought by HIV and AIDS.

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Iris Onipede and Ellen Schmitt

List of Abbreviations

| | |
|-------|--|
| ACORD | Agency for Cooperation and Research in Development |
| ADB | Asian Development Bank |
| AIDS | Acquired Immunodeficiency Syndrome |
| AMREF | African Medical and Research Foundation |
| ART | Antiretroviral therapy |
| ARV | Antiretroviral drugs |
| ASCA | Accumulating Savings and Credit Association |
| CA | Conservation agriculture |
| CBO | Community-based organisation |
| CRS | Catholic Relief Services |
| DAP | Draught-animal power |
| ECA | Economic Commission for Africa |
| FACT | Food and cash transfers |
| FAO | Food and Agriculture Organisation |
| FBO | Faith-based organisation |
| FFA | Food for Assets |
| FFS | Farmer Field School |
| GTZ | German Technical Cooperation |
| HBC | Home-based care |
| HH | Household |
| HIV | Human Immunodeficiency Virus |
| ICAD | Interagency Coalition on AIDS and Development |
| IFAD | International Fund for Agricultural Development |
| IFPRI | International Food Policy Research Institute |
| IPM | Integrated pest management |
| JFFLS | Junior Farmer Field and Life School |

| | |
|--------|--|
| LEISA | Low External Input and Sustainable Agriculture |
| LRAP | Livelihoods Recovery Through Agriculture Program |
| LST | Labour-saving technologies |
| MFI | Microfinance institution |
| NAADS | National agricultural services |
| NAC | National action committee |
| NCP | Neighbourhood Care Points |
| NGO | Non-governmental organisation |
| OI | Opportunity International |
| OVC | Orphans and vulnerable children |
| PLHIV | People living with HIV |
| ROSCA | Rotating Savings and Credit Association |
| SILC | Savings and lending communities |
| SSA | Sub-Saharan Africa |
| UNAIDS | Joint United Nations Programme on HIV/AIDS |
| UNICEF | United Nations International Children's Emergency Fund |
| UNIDO | United Nations Industrial Development Organisation |
| USAID | United States Agency for International Development |
| UWESO | Uganda Women's Effort to Save Orphans |
| VCT | Voluntary counselling and testing |
| VSU | Victim Support Unit |
| WFP | World Food Programme |
| WHO | World Health Organisation |

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1 Introduction

The epidemic of HIV and AIDS is causing a major development crisis. Apart from the social and psychological consequences, HIV and AIDS have deepened poverty and eroded the ability of many individuals and households to survive, to produce sufficient and nutritious food and to generate off-farm income for other living expenses (ICAD, 2004). For development organizations HIV and AIDS are a major challenge. They are called on to deliver services appropriate to the capabilities and needs of the target population affected by HIV and AIDS.

Development cooperation is the essence of Misereor's work and since its inception in 1958, Misereor has been committed to the aspect of self-help. It is Misereor's goal to support the poorest of the poor through partner organizations in various countries. One of the major tasks involved is to mobilise the self-help potential of the target population and to support and improve their efforts in fields such as sustainable agricultural practices, rural development, income generation, savings and credit schemes, and so on.

To a smaller extent, charitable engagement is also part of Misereor's mandate and a number of partner organizations, through their social work, support poor people who lack self-help potential and who need assistance.

HIV and AIDS disproportionately affect the poorest of the poor and therefore many people supported by Misereor partners are infected and affected by HIV and AIDS. Through the effects of HIV and AIDS, poverty is often deepened and development efforts are reversed. Depending on their household situation and the stage of the disease, affected individuals and households cannot or cannot fully support themselves and so project strategies have to be adjusted to fit the situation of the target groups.

Based on the challenges faced by many Misereor partners, this study aims to have a closer look at the three key areas presented: agriculture and rural development, self-help, and social protection. It highlights the challenges these sectors face and presents promising responses in the form of strategies which take the effects of HIV and AIDS into account. At best, the presentations will encourage Misereor's partner organisations to adapt their work to the challenges posed by HIV and AIDS.

Chapter 3: Agriculture and rural development are highly affected by HIV and AIDS through the loss of labour, the loss of knowledge and the emergence of many households headed by only one parent, grandparents or even children, for example. The effects of HIV and AIDS on the agricultural and rural development sectors are explained in more detail and practical responses in the field of labour-saving sustainable agricultural methods, including agro-biodiversity strategies, appropriate farming mechanization, energy- and time-saving methods and approaches with regard

to water, hygiene and sanitation at the household level are described. Strategies for knowledge preservation and transmission are also part of this chapter.

Chapter 4: Mobilising self-help potential has always been of key importance to development initiatives in sub-Saharan Africa and other regions. The disruptive effects of HIV and AIDS on households and communities, the resulting increase in the levels of poverty, the limited support capacity of the extended family and the high number of orphans, make it crucial to mobilise and strengthen the self-help potential and to overcome the disastrous effects of HIV and AIDS by developing sustainable coping mechanisms. This chapter presents a wide range of promising approaches that can stimulate self-help capacities in response to the challenges of HIV and AIDS: suitable income-generating activities, appropriate microfinance and savings projects, tapping the potential of local support groups as well as promoting 'useful' local customs relevant to HIV prevention and the mitigation of HIV and AIDS. The specific needs and vulnerability of orphans, orphan care and legal protection for orphans and women with regard to land and property rights are also discussed.

Chapter 5: Due to the devastating psychological and economic effects of HIV and AIDS, a huge number of affected households are unable (at least for certain periods of time) to help themselves and develop sustainable coping mechanisms. Several types of social protection schemes in the context of HIV and AIDS are described: social insurance in the sectors of health, agriculture and life; social assistance schemes such as food and cash transfers, and even nutritional intervention; labour market measures such as 'food for work', 'cash for work' and 'input for work'; and adequate child protection mechanisms. Micro and area-based schemes in the field of agriculture are also tackled in this chapter.

Each chapter has a short introduction to the topic, describes the challenges faced by different sectors and enumerates promising and appropriate responses. Practical project examples are also presented. Concluding remarks and recommendations are found at the end of the document.

2 Objectives and methodology of the study

Key objectives of the desk study:

- A systematic description of promising approaches to agricultural methods that are less labour intensive (as an alternative with regard to sustainable agricultural methods) and preconditions for a “light” mechanization in HIV and AIDS-prone areas;
- A systematic description of other promising approaches to stimulating the potential that still exists in households affected by HIV and AIDS to allow them to live lives more or less independent of external support, such as credit facilities, insurances, income-generating activities, etc.;
- A systematic description of promising approaches to social security at various levels (government, community etc.) for households which no longer have any potential for self-help.

Methodology

- An extensive review of literature in the field of agriculture, labour-saving technologies, microfinance, social safety nets, land rights, community responses, government responses;
- Contacting directly relevant development organizations by e-mail and telephone.

3 Promising responses to HIV and AIDS in agriculture and rural development

3.1 Introduction

The majority of the population in low- and middle-income countries depends on subsistence farming and on agricultural production to earn a living. Evidence shows that in countries with high HIV prevalence the agricultural sector is disproportionately highly affected by HIV and AIDS. The structure of the agricultural sector here, consisting in particular of smallholder farms, makes it difficult to cope with the effects of HIV and AIDS (Waal et al., 2003). The most immediate effect is the loss of labour due to chronic illness and death. Healthy family members have to fill the gap of labour loss, which increases their workload, but they may not be able to cover the deficit fully. This leads to a delayed cultivation of fields, land being left fallow, sales of productive assets, dependence on farm labour and, finally, decreased agricultural production and reduced means of livelihood (Shah et al., 2002; Gillespie et al., 2003). Women in particular carry a huge burden; they are usually the main caregivers and, in addition to farm work, they take care of most the domestic work. In the case of chronic sickness or death of the husband, it is difficult for them to replace the lost labour and so agricultural production declines. These constraints often result in school dropouts on the part of the affected children (Waal et al., 2003). Households headed by only one parent, the elderly taking care of orphans, and households headed by children are among the distressing consequences of AIDS. They have to cope with this dreadful situation and have to find ways to make a living. Depending on their age and physical strength, they encounter their limits.

It is, therefore, important to identify appropriate responses in the agricultural sector to mitigate those devastating effects on farming households and rural communities. These responses should focus on areas in which the agricultural sector has 'comparative advantages'. From this point of view, a promising area of intervention in the agricultural sector is the promotion of labour-saving technologies (LST) and measures to ensure food security, as well as energy- and time-saving methods.

The water, hygiene and sanitation sectors can play a crucial role in the mitigation of the effects caused by HIV and AIDS on health and livelihood. Adequate measures for the preservation and transmission of knowledge concern especially the young generation, which is confronted by the loss of adults to pass on information and practices.

Additionally, integrated, holistic approaches are needed which also address the gender dimension in general and with regard to HIV and AIDS. Fig. 1 offers an overview of the roles the agricultural and rural development sectors could play in addressing HIV and AIDS.

Figure 1: The role of the agricultural and rural development sectors in addressing HIV and AIDS

| | |
|-------------------|---|
| Prevention | <ul style="list-style-type: none"> → To make agricultural production a viable source of livelihood in order to reduce poverty and food insecurity and thereby vulnerability to HIV infection. Through poverty and food insecurity people are forced to develop survival strategies that make them more vulnerable to HIV infection, e.g. migration for work, practicing 'survival sex'; → To address the disadvantaged legal, socio-economic & cultural situation of women, e.g. by improving their access to and control over productive resources, increasing their decision-making power, improving their access to education; → To set up strategic partnerships with the health and education sectors to disseminate awareness on HIV and AIDS and to promote behaviour change. |
| Care | <ul style="list-style-type: none"> → To improve nutrition for PLHIV and promote the use of appropriate medicinal plants; → To reduce the domestic workload; → To improve access to clean water and sanitation, improve hygiene status, referral to healthcare providers (AIDS-projects, etc.). |
| Mitigation | <ul style="list-style-type: none"> → To adjust agricultural programmes in the context of HIV and AIDS to secure livelihoods and better cope with the effects of HIV and AIDS; e.g. consider labour shortages, changing household structures, etc.; → To assure the transmission of agricultural skills to the younger generation; → To secure land and property rights for widows and orphans. |

Source: Topouzis et al., 1999

This chapter highlights the challenges and provides appropriate strategies in the mitigation of HIV and AIDS in various sectors:

- Agriculture and rural development
- Water, hygiene and sanitation

3.2 A systematic overview of promising approaches

3.2.1 Introduction: Labour-saving technologies

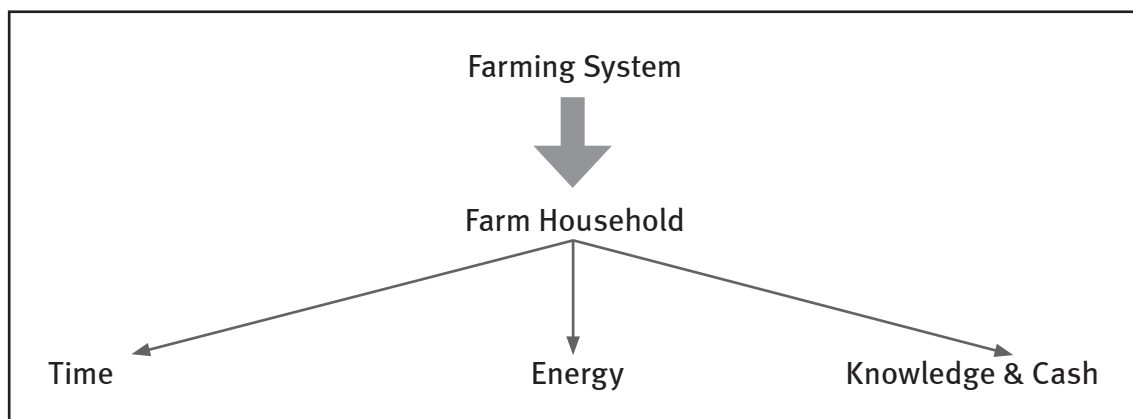
Labour-saving technologies (LST) must be understood in a broad sense, as methods and inputs in farm production, e.g. cultivation practices, crop varieties, cropping patterns, soil-improvement measures, harvesting methods (Guerny, 2002).

A wide scope of LST is available, ranging from the use of a different kind of hoe suitable for children to a change in cultivation practices (from hand cultivation to draught power).

These changes may require some investment; at the least they require the ability to adapt to change and to pass through the transition period successfully. The economic dimension and the knowledge base required to introduce LST successfully must be explored in various contexts. Hereby, it must be considered that households affected by HIV and AIDS are not always able to adopt LST, because their ability to cope changes over time and so intervention strategies must take into account not only the changing household structures, but also the emotional stress associated with the disease.

Holistic approaches are needed, adapted to the specific context of the affected household at a particular time and preferably involving the wider community, to build social capital for the sustainable use of LST. If needed, financial means must be provided for the farming household, from within the community, the government or institutions (Guerny, 2002; IFAD, 2000; Gillespie, 1989).

Figure 2: Areas for the promotion of labour-saving technologies



Source: Guerny, 2002

The range of labour-saving methods is large. It is crucial that they be easily adaptable for resource-poor farming households.

Table 1: Labour-saving measures

| Measures | Objectives |
|--|---|
| Less labour-intensive crops | <ul style="list-style-type: none"> • To save energy and labour without compromising nutritional value • e.g. orange-fleshed sweet potato |
| Agricultural diversification | <ul style="list-style-type: none"> • To spread the workload and to harvest more evenly around the year • e.g. through permaculture methods, intercropping |
| Community water-harvesting and management systems | <ul style="list-style-type: none"> • To improve the production/labour ratio • e.g. run-off water collection, water storage systems |
| Promotion of other crops and farming systems | <ul style="list-style-type: none"> • To reduce the vulnerability to ecological and social factors • e.g. promotion of locally adapted (often neglected) crops |
| Labour-saving technologies in the area of cultivation, land preparation | <ul style="list-style-type: none"> • Inter-cropping and mulching to reduce weeding time • Zero or minimum tillage to reduce the need for expensive ploughs and draught-animal power • Using trap crops to attract pests away from other crops • Row planting that makes weeding and harvesting easier • Raised seed beds, etc. |
| Lighter agricultural tools | <ul style="list-style-type: none"> • Tools which can easily be handled by women, children and the elderly • e.g. lighter hoes |
| Labour-saving food processing systems | <ul style="list-style-type: none"> • To reduce the workload, in particular of women and children • e.g. grinding mills, de-huskers, alternative cooking technologies and fuel sources |
| Improved storage systems | <ul style="list-style-type: none"> • To avoid rodent attack, pest and fungal infestation • e.g. stores with collars (made of metal if possible) on the stands of the store to prevent rodent attack |
| Alternative sources of income | <ul style="list-style-type: none"> • To diversify income sources • e.g. nutritious food sold at local markets |

* Examples mentioned in the table depend on local conditions.
Sources: ICAD, 2001; Lengkeek, 2004 (modified)

Some of the labour- and energy-saving measures can be introduced into the existing farming system without additional resources by facilitating tasks or modifying existing practices, e.g. the introduction of intercropping. Other measures, such as energy-saving stoves, require small investments.

Four levels of intervention for the introduction of LST:

Level 1 – Emergency assistance: Assisting vulnerable households to survive in the short term by addressing the most pressing time and energy constraints with immediate solutions.

Level 2 – Short term: Stabilizing the existing system and resource base. This often requires special knowledge, but this is not capital intensive.

Level 3 – Medium term: Drawing additional resources into the existing system. This requires the availability of capital and/or new skills.

Level 4 – Medium to long term: Developing a new system; enabling households to adopt new sources of farm power. This requires the availability of capital, new skills, a positive attitude towards change (Bishop-Sambrook, 2003; Bishop-Sambrook, 2005).

3.2.2 Labour-saving sustainable agriculture practices

A lot of agricultural practices, whether in conventional or sustainable/organic agriculture, require rather a lot of labour and are not suitable for many households affected by HIV and AIDS (FAO labour-saving methods). The following subchapters provide an overview of alternative cultivation practices and strategies which are practicable and the benefits and challenges they present. Unfortunately, there is a general lack of literature on options tailored for the different levels of effect experienced by households affected by HIV and AIDS.

3.2.2.1 Agricultural diversification

Agricultural diversification means that agricultural activities are given a broader basis, focussing on variety, such as the practice of cultivating various crops on one piece of land, or the integration of crop and livestock farming. Agricultural diversification increases the sustainability of agricultural systems and minimises the risks related to poor harvests or pest attacks.

Diversification has improved agricultural production (output per unit of land) for many households, thus improving their food security (variety of crops, food availability over a longer period, etc.) and diversifying their sources of income. Furthermore, the labour required is also spread over time, with reduced peak labour requirements if possible (Gari, 2004; Lengkeek, 2004). Diversification in agriculture is therefore considered a promising strategy for households affected by HIV and AIDS.

Table 2 provides an overview of possible diversification strategies.

Table 2: Agricultural-diversification strategies

| | |
|--|---|
| <p>Diversification (crops)</p> <ul style="list-style-type: none"> • Crop diversification • Introduction of new crops • Cultivation of trees and orchards • Inclusion of leguminous crops • Seed banks • Multipurpose crops and species | <p>Diversification (livestock)</p> <ul style="list-style-type: none"> • Integrated agriculture-aquaculture • Crop and livestock farming • Fodder production • Small-animal husbandry |
| <p>Cultivation practices</p> <ul style="list-style-type: none"> • Intercropping • Crop rotation • Cover crops • Contour planting • Elaborated fallow systems • Selective weeding • Separation of crops with similar pest and disease vulnerability | <p>New farming systems</p> <ul style="list-style-type: none"> • Agro-forestry systems • Home gardens • Grassland management • Use of wild ecosystems |

Source: Gari, 2003

Many traditional farming systems practise some form of agricultural diversification. Agricultural intervention strategies for vulnerable and affected households should build on and improve local practices, keeping in mind the low potential for experimentation in affected households. If systems of that kind have been eroded, the introduction of ‘modern sustainable practices’ which save labour and energy is justified. The examples in Boxes 1 and 2 show some promising agricultural diversification strategies. The ‘chihali’ example presents traditional sustainable practices very well adapted to local conditions and the minimisation of risks. The Lesotho example shows the introduction of ‘modern sustainable farming’ practices into a school garden programme.

Box 1: The Chihali system – a Tanzanian example

The 'chihali' system is a traditional system well adapted to the agro-ecological conditions of the central drylands in Tanzania. While some communities still use the system as their main agricultural farming method, others have changed to 'modern' agriculture and the mono-cropping of maize, sorghum and grapes.

Agricultural-diversification strategies of the 'chihali' system:

- Crops: many crops used are drought resistant and adapted to poor soils, e.g. various local varieties of millet and sorghum; the planting of fruits and pumpkin.
- Cultivation: practices of intercropping (e.g. pearl millet and sorghum to optimize water use), the use of legumes to improve soil fertility.

Food security:

- Avoidance of seasonal food shortages through diversification and the good storage potential of many crops;
- Balanced nutrition: the provision of energy, protein, vitamins and minerals.

Saving labour:

- Optimal use of land and, therefore, optimal use of labour;
- Some grain varieties used in the system require less time for threshing.

Saving money:

- It is a low-input system.

Benefits:

Research in the area has shown that many households affected by HIV and AIDS prefer the 'chihali' system to 'modern agriculture', because of the labour-saving, risk-minimising attributes.

Source: Gari, 2003

Box 2: School garden projects – a Lesotho example

The Rural Self-Help Development Association (RSDA) funded by the Swedish International Development Agency (SIDA) runs an HIV and AIDS-related project called 'Secure the Child'. The purpose of the project is to assure food security for OVC in and out of school through the development of gardens in the hardest-hit areas. In collaboration with local authorities, the RSDA has offered schools training in sustainable agriculture:

- Permaculture
- Keyhole gardening
- Double digging
- Dual-purpose chicken raising (for egg production and meat)
- Nutrition education, in general, and with regard to HIV and AIDS

The strategy involves meeting relevant stakeholders, training two leading teachers at each school and linking the schools with other service providers.

Effects:

- 21 school gardens were developed.
- More than 3,800 pupils were assisted to improve their nutrition.
- Children were trained in gardening skills which could be used at home; peer support for gardening in their communities.

Sources: FAO, 2007; Care, 2005

Keyhole gardens: 'The garden looks like a keyhole from above, with a basket in the middle through which wastewater is poured into the garden. Each garden is built using compost (a mixture of ashes, weeds, aloe and manure), a combination which helps retain moisture. Watering the keyhole garden once a day through the basket is enough to keep the vegetables happy and healthy'. 'The keyhole garden is ideal for elderly or sick individuals who often depend on it as their primary source of survival. Because the working height of the garden is at waist level, people don't need to bend to cultivate it, and it only takes a small amount of water to maintain it'. C-SAFE Newsletter, January - April 2005

www.youtube.com/watch?v=XjcjCCx3BWY

www.sendacow.org.uk/africangardens

Double-digging: "Double-digging adds air deep into the soil and enables roots to grow and the microbes to create good soil structure. This is, in the first instance, a labour-intensive approach. But if the soil of a garden is very dense or hard-packed, the effort will improve yields in the long run".

www.organicgardening.com/feature/0,7518,s-5-19-934,00.html

Agricultural diversification has many benefits for affected households: e.g. minimising the risks related to agriculture, spreading the workload over different time periods, diversification of nutrition, additional income. Further, it is a long-term strategy that protects the natural resource base of a household through the application of soil conservation methods which enhance and build up soil fertility.

3.2.2.2 Conservation agriculture

Conservation agriculture (CA) aims to conserve, improve and make more efficient use of natural resources through integrated management of the available soil, water and biological resources.

The three main components of CA are:

- The reduction of soil manipulation and, wherever possible, direct planting without any form of tillage;
- The generation of a permanent vegetative soil cover which serves as a protection for the soil surface;
- Crop rotation or intercropping. (Steiner, 2002)

Box 3: Benefits of conservation agriculture

CA offers **several advantages in terms of saved labour and environmental protection**, including the following:

- Direct planting (no tillage) saves time and energy.
- Weed control through cover crops saves time.
- Soil erosion is almost eliminated.
- Leguminous cover crops fix atmospheric nitrogen and act as fertilizer; this reduces the need for fertilizer applications and therefore saves time and costs.
- The permanent soil cover conserves surface soil moisture.
- Yields and, thereby, livelihoods are improved.
- CA minimizes risks.

Source: Steiner, 2002

CA is considered to be a beneficial and affordable option for smallholder farmers affected by HIV and AIDS.

- It has the potential to save farm labour, avoid labour peaks, reduce drudgery and permit on-time farm operations.
- It can lead to improved nutrition (in terms of quantity and quality).
- It offers a new perspective to affected farming communities.

(Steiner et al., 2004)

Due to the reduced labour requirements, households are able to complete their daily activities and still have time to care for a sick household member, for instance. The time and labour surplus can be used to extend the area under cultivation, to generate extra income through off-farm employment or to diversify activities, including the processing of agricultural products. Because of the potential to increase yields, the area under cultivation can also be reduced with the same output (Sims & Kienzle, 2006; Steiner et al., 2004). The potentials of introducing CA to affected households have been further explored.

The case studies from Tanzania and Swaziland presented in Boxes 4 and 5 highlight opportunities and constraints of CA in the context of HIV and AIDS.

Box 4: Saving labour through CA – a Tanzanian example

IFAD conducted a pilot research study in Tanzania to find out whether CA has potential in the following areas:

- Overcoming labour constraints (mainly due to HIV and AIDS, other diseases and high rate of migration to towns);
- Increasing food security (efficient use of rain water, use of nitrogen-fixing crops);
- Increasing household income (reduction of costs for tillage, additional income through the production of fodder crops);
- Determining favourable conditions and limitations for the adoption of CA by vulnerable households.

Key findings of the study:

- There were labour savings, in particular in the area of weeding and tillage.
- Production and yields increased, leading to increased food security.
- Additional fodder was available.
- Soil fertility increased.
- There was no special risk for (vulnerable) farmers who adopted the new technology.
- Cover crops were preferred to conventional herbicides.
- There were socio-cultural barriers: fields ‘looked untidy’.

Key recommendations of the study:

- Cover crops should be introduced as a starting point for CA in projects propagating labour saving methods.
- The introduction of CA hand tools and draught-animal power (DAP) with equipment (such as small planting hoes, the hand-jab planter, DAP ripper and DAP no-till planter) should be introduced in a second step.
- Extension staff needs special training in CA.
- Demonstration plots, participatory farmer training and local field days are required to expose small farmers and local leaders to CA and its benefits.
- The labour-saving attributes of CA are an excellent starting point to sensitize farmers to the opportunities of CA.

Source: SARPN 2003 http://www.sarpn.org.za/mitigation_of_HIV_AIDS/m0004/index.php

The next example in Swaziland presents the potential of CA to increase food security in the context of HIV and AIDS and shows the practical challenges posed by the introduction of CA as a new technique.

Box 5: CA, food security and HIV and AIDS – a Swaziland example

The introduction of CA – a Swaziland example

Food security and rural incomes are highly threatened by HIV and AIDS. In response to this problem, the project 'Awareness Creation of Conservation Agriculture' was started in Swaziland in August 2003 at a pilot scheme by an Italian NGO 'COSPE' in collaboration with the FAO and the Ministry of Agriculture and Cooperatives.

The project combines CA practices with the revival of indigenous knowledge, integrated pest management (IPM) methods and the promotion of local crops.

This approach has several advantages:

- It is well adapted to the integrated economic systems of rural communities in Swaziland.
- It is reducing the monetary input for farming, making farming more efficient and productive e.g. zero cash costs for seed (produced by farmers) and ploughing, little cost for fertilizer during transition.
- It optimizes and conserves natural resources: soil and water.
- Crop rotation and associations increase variety and result in better quality of food.

Challenges faced with CA methods:

- Biomass production: Legumes dry up in winter with no field residues left for soil coverage.
- Crop association: The best associations are yet to be found (some legume-cereal combinations compete for light!).
- Seed availability: Some seed varieties are not available, or quantities are too small (mainly mucuna, pigeon peas, cassava, peanuts).
- Seed storage: Community seed storage facilities are inadequate for safe seed storage.
- Weed control: High weed infestation can hardly be controlled by hand; additional labour is required.
- Pest control: Pest control is inadequate – in particular, grasshopper infestation.
- Availability of equipment: More CA equipment, such as matracas, jab planters and DAP planters will be needed for expansion.
- Exchange of experience: Poor coordination of the project with research centres.

Future strategies (before the project can be implemented on a larger scale):

- More collaboration with relevant networks and research centres.
- Field trials in all areas of concern, e.g. testing appropriate crop associations and cover crops, developing appropriate seed multiplication and storage schemes, efficient systems of pest and weed control (cover crops vs. pesticides), easy purchase of equipment etc.

Source: Mechini, 2005

Remarks: This case study demonstrates practical challenges posed by CA and the complexity of introducing a new way of farming in a vulnerable system where skills and infrastructure are insufficient in many ways.

Besides the benefits of CA mentioned earlier, the examples above and the available literature present several constraints to the introduction and adoption of CA for affected households. The constraints have to be taken into critical consideration when a project plans to introduce CA in such a context:

- In the transition period from conventional agriculture to CA, weed incidence usually increases, because of the seed stored in the soil.
- Thus labour requirements for weeding may possibly increase in the first two to three years.
- This transition period could be shortened through the use of herbicides, but in most cases this is not an option for impoverished families because of costs, limited access to markets and lack of knowledge (potential health hazards).
- Another constraint is social pressure; unweeded fields are considered to be 'untidy'.
- It is difficult to practice CA if rains are unreliable, because biomass production is low and soils have a tendency to compact.
- The introduction of CA technology needs external support, advice and starting equipment, e.g. the provision of special CA implements, such as jab planters or draught-animal power, non-till planters and cover-crop seeds.

Sources: Baudron et al., 2007; Steiner et al., 2004

In the long run, CA offers several benefits for households affected by HIV and AIDS. The transition from conventional farming to CA has to be guided well; inputs (seed, equipment), as well as technical know-how, have to be provided from outside. The introduction of CA can be very complex, because many issues have to be considered: technical know-how, infrastructure, the availability of inputs (equipment, seed, etc.), and social factors. This might be even more difficult in the context of HIV and AIDS, where households have a lower capacity for experimentation.

3.2.2.3 Integrated pest management

The use of pesticides poses a risk to human health and the environment. Moreover, for many subsistence farmers, chemicals are not affordable. This is also the case for many households affected by HIV and AIDS. Integrated pest management (IPM), a combination of management strategies to control pests and diseases in crops, can be a promising strategy for increasing yields in a cost- and often also time-effective manner. Nevertheless, IPM requires the close monitoring of fields and profound knowledge. Without consideration for their specific situation, attending IPM training and putting all management strategies in place could cause time problems in households affected by HIV and AIDS. Normally, IPM is part of a sustainable farm-management system. The example below, taken from Zimbabwe, demonstrates some of the benefits of IPM for affected households in a wider sustainable/organic agricultural system. (FAO/UNAIDS, 1999)

The example in Box 6 presents the benefits of applying integrated pest management strategies in organic cotton production systems.

Box 6: Organic cotton and IPM – a Zimbabwean example

The first organic cotton project in the Zambezi Valley was set up in 1995 to support 40 women (including widows) who could not afford to buy pesticides. Key constraints of widows/affected households were generally labour and cash shortages and a lack of financial and management skills. The project was scaled up by the NGO AFFOREST and, in 1997-98, the FAO-supported Farmer Field Schools (FFS) were introduced. According to the AFFOREST coordinator:

“Many AIDS widows have joined because organic cotton has no (external) input costs and a lower labour requirement than conventional cotton farming.”

Key activities of AFFOREST-supported FFSs:

- Facilitation of the exchange of traditional farming methods and building confidence in widows and other marginalized groups;
- Serving as a learning forum: e.g. management decisions concerning the planting date, spacing, intercropping, picking, grading and marketing;
- Promotion of labour-saving and low-input technologies related to organic farming, including methods of IPM;
- Promotion of crop diversification, e.g. the cultivation of groundnuts;
- HIV and AIDS awareness sessions for men and women and the wider community are integrated into the programme in strategic partnership with a local NGO.

Effects:

- The food security of widows and other vulnerable households improved through the promotion of low-input and low-risk agriculture.
- Benefits of organic cotton: low input costs, labour savings and premium prices, due to organic certification.
- Through IPM, the farmer only spends 1-2 hours per week on pest scouting compared to 15 hours per week for spraying.

Source: FAO/UNAIDS, 1999

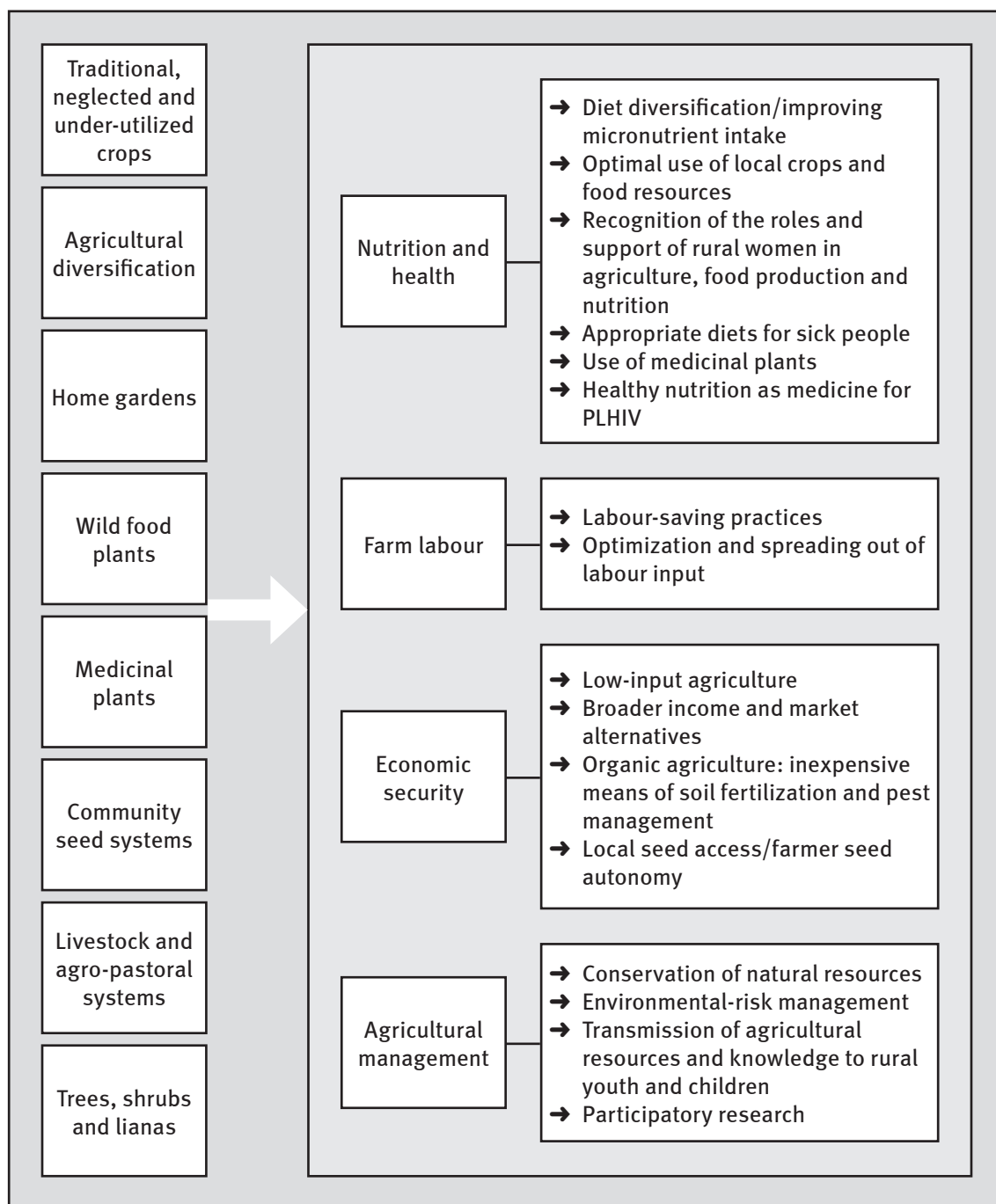
IPM strategies can save labour, as shown in the Zimbabwean example. They do not require expensive input, and are therefore suitable for affected households. Nevertheless, IPM farmers have to be trained adequately, keeping in mind their availability, and closely monitored.

3.2.3 Agro-biodiversity strategies

In combination, agro-biodiversity and local knowledge are invaluable resources for strengthening and stabilising rural communities and ensuring their survival (Lengkeed, 2004; Gari et al., 2002). Agro-biodiversity comprises various biological resources for food production, such as crop varieties, animal species and plants that are useful for medicinal purposes, for instance. Utilising agro-biodiversity can directly benefit affected households in terms of nutrition and food security, health, labour management and economic security (Gari, 2003; Lengkeed, 2004).

All measures aimed at optimizing the use of agro-biodiversity must consider labour-, cost- and time-efficiency. See Figure 3 for an overview of strategies pertaining to agro-biodiversity. The following subchapters describe several options in more detail.

Figure 3: Strategic use of agro-biodiversity to combat the effects of HIV and AIDS



Source: Gari, 2003

3.2.3.1 Traditional crops

Traditional, neglected and under-utilized crops are a cheap way to improve food and nutrition security among affected households. Additionally, the cultivation of traditional crops often means a diversification of household incomes.

Traditional crops offer a number of benefits, such as

- Better nutrition;
- Less labour due to lower pest infestation, the crops' ability to suppress weeds or because the crops are ready for harvest earlier;
- Flexible labour input, e.g. some traditional crops do not have a strict time for harvesting;
- High adaptability to local agro-ecological conditions (low water and fertilizer requirements, etc.);
- Many traditional crops can be used for intercropping with other crops.

(Gari, 2004)

Table 3 provides an overview of some traditional crops which are important in the response to HIV and AIDS because of their nutritional components, the fact that they save labour, and other attributes.

Table 3: An overview of promising traditional crops in the response to HIV and AIDS

| Crop name | Benefits | Main regions |
|---|---|----------------------------|
| Tuber crops | | |
| The aroid crops: cocoyam (<i>Xanthosoma</i> spp.), taro (<i>Colocasia esculenta</i>), tannia (<i>Xanthosoma sagittifolium</i>) | <ul style="list-style-type: none"> • Excellent agro-ecological adaptation; suitable for poor soils and water constraints | Asia |
| Cereals | | |
| Fonio (<i>Digitaria</i> spp.) | <ul style="list-style-type: none"> • Recommended for sick people due to its digestibility and high nutritional qualities | Africa |
| Indigenous African rice (<i>Oryza glaberrima</i>) | <ul style="list-style-type: none"> • Suppresses weeds | West Africa |
| Buckwheat (<i>Fagopyrum</i> spp.) | <ul style="list-style-type: none"> • Well adapted to mountain areas and poor soils • Can improve degraded land and burned soils • Short growing season • Protein of excellent quality | China, Himalayan foothills |
| Pearl millet (<i>Pennisetum glaucum</i>) | <ul style="list-style-type: none"> • Excellent storage potential | Africa |

| Crop name | Benefits | Main regions |
|---|--|-------------------------------|
| Leguminous crops | | |
| Groundnut varieties 'Enoit' and 'Erudurudu' | <ul style="list-style-type: none"> • Vertical root structure that allows easy harvesting (physical benefits) • Highly nutritious in terms of protein & fat | Central Uganda |
| Cowpea (<i>vigna unguiculata</i>) | <ul style="list-style-type: none"> • Rich in protein, calcium, vitamin B3 | Africa, Asia |
| Bambara (<i>Voanzea subterranean</i>) | <ul style="list-style-type: none"> • Rich in protein, iron, vitamin B1 | West Africa |
| Pigeon pea (<i>Cajanus cajan</i>) | <ul style="list-style-type: none"> • Rich in protein, vitamin B1 | Africa |
| Leafy vegetables | | |
| Leaves of the sweet potato 'tinangkong' | <ul style="list-style-type: none"> • Dark green leaves and shoots, an excellent source of vitamin A | Negros Island, Philippines |
| Okra (<i>Hibiscus esculenta</i>) | <ul style="list-style-type: none"> • Rich in B vitamins | Middle East, Asia, Africa |
| Fruits | | |
| Citrus fruits (<i>Citrius spp.</i>) | <ul style="list-style-type: none"> • Excellent source of micro-nutrients and vitamins | Southern Europe, Africa, Asia |
| Litchi (<i>Litchi chinensis</i>), mango (<i>Mangifera indica</i>), etc. | <ul style="list-style-type: none"> • Excellent source of micro-nutrients and vitamins | Africa, Asia |
| Tree tomato (<i>Cymphomandra betacea</i>) | <ul style="list-style-type: none"> • Rich in vitamin C • Matures fast (fruit 1 year after planting) | Africa |
| Pawpaw (<i>Carica papaya</i>) | <ul style="list-style-type: none"> • Rich in vitamin A • Matures fast (fruit 1 year after planting) | Latin America, Africa, Asia |
| Vegetables | | |
| 'African vegetables', e.g. curcubitaceous crops (<i>Curcurbita spp.</i>), such as local melon varieties | <ul style="list-style-type: none"> • Excellent source of micro-nutrients | Africa |

Sources: Gari 2003; Gari 2004

The exploration of traditional crops in the response to HIV and AIDS is a viable strategy. This holds particularly for crops which are highly nutritious, save labour and require low input in terms of fertilizers, weeding, and pest management. The main disadvantages of traditional crops are that some have limited market value, due to prejudice (e.g. fruit is eaten by children only) and limited awareness of their nutritional advantages.

Considering the situation of affected households (experiencing the loss of indigenous knowledge, changing household structures, little room for risk-taking etc.), a lot of sensitivity is needed to re-introduce traditional crops. (Gari, 2003)

3.2.3.2 Home gardens

Homestead gardens are small pieces of land close to the house in which a rich diversity of plant species are grown: e.g. leafy greens, vegetables, fruit trees, leguminous crops, root and tuber crops, herbs, spices and medicinal plants. Possibly, small ruminants are kept in the homestead, such as chicken, rabbits, sheep and goats, which provide manure. This high diversity of food products offers multiple benefits, in particular in terms of risk management, balanced nutrition, labour management and alternative income, especially for households headed by women or children. Home gardens, therefore, have an important function for the household's safety net (FAO, 2006).

Home gardens can be very beneficial for households affected by HIV and AIDS:

- Many home gardens are close to the homestead. Therefore, it is possible to carry out domestic and other work while maintaining the home garden. This can be essential, if somebody has a sick person to look after.
- Home gardens provide foods that contain micronutrients to supplement staple foods. In addition, medicinal plants can be cultivated. Both are very important for the immune system.
- They can be sold and directly contribute to the income of an impoverished household.
- They can contribute to the disposable income indirectly: families who produce food in the home garden spend less money on food at the market.

If homestead gardens are to be successful, the beneficiaries need to be trained in appropriate cultivation practices for different crops, crop rotation, intercropping methods, garden maintenance, simple irrigation, manure application techniques, plant protection and integrated pest management. Furthermore, training in business planning is of advantage if benefits are to be maximised. If gardening can be realised on a larger scale, the beneficiaries may be linked to micro-finance institutions. Training should also be provided in the use of locally available foods, appropriate cooking and preserving, nutrition in general and nutrition as pertaining to HIV and AIDS. (FAO, 2006)

The example in Box 7 presents a holistic home garden project for affected households including orphans.

Box 7: Homestead gardening for affected households – a Lesotho example

The Livelihoods Recovery Through Agriculture Program (LRAP) established by CARE

LRAP was built upon the experience of a former agricultural project in Lesotho. The HIV and AIDS situation was taken into account right from the conception of the programme.

LRAP was started to target vulnerable households and those potentially affected by HIV and AIDS, mainly working with households headed by women or children and households with a chronically sick family member. Homestead gardening was chosen as the key means of intervention, because it seemed of great necessity and very suitable for these target groups:

- Many people in Lesotho own land close to their homes, but own and therefore cultivate no fields.
- Homestead gardens require less time and effort and therefore allow the combination of gardening with household tasks.
- Homestead gardens offer a wide variety of food crops: vegetables, staples, and medicinal plants, which can improve nutrition and nutrition security for PLHIV.
- Homestead gardens can also provide an additional source of income.

Strategies:

- A series of 11 learning modules on homestead gardening with colourful manuals in English and local languages were shared with the participating households.
- Roofwater harvesting tanks, small dams, and drip irrigation were promoted for the water supply and were part of the technical guidelines.
- Nutrition guidelines have been developed and are also being promoted by the Ministry of Agriculture.

Effects:

- 1,368 households were reached: 48% of the participating households were supplied by their gardens year-round; 25% can produce food most of the year; 53% established or increased their production.
- 65% of the participants grew at least five different vegetables, but only 33% grew food combining all four categories (vitamins, minerals, carbohydrates and proteins).
- Wider impact on the population resulted from close collaboration with the government extension scheme and local government departments.

Source: CARE, 2005

Remark: In this example, land constraint made homestead gardening a very viable option. In situations where land is available, homestead gardening can be promoted but should preferably not 'replace' other agricultural activities, because the intensive use of the land close to the house as a home garden may reduce soil fertility over time. The use of different pieces of land should be promoted if possible.

Home gardens can play a significant role in assuring food security and possibly economic security for affected households. It is mainly the women who are traditionally involved in gardening and men need to be sensitised to the benefits. Home gardens save labour and are, therefore, particularly important for affected households (single parents, orphans, the elderly). (Gari, 2003)

3.2.3.3 Community seed systems

Community seed systems promote seed security by ensuring that people have adequate access to a diversity of seeds at the right time of year. Community-based seed systems often preserve local seeds, which are better adapted to local conditions and therefore important for food security. Initially the construction of the storage facility requires funds, but in the long run money can be saved because there is no need to buy seeds. Access to good quality local seeds is also very important for vulnerable households. Box 8 shows a variety of possible measures at the community level to preserve seed.

Box 8: Community-based seed preservation mechanisms

Examples of community-based seed preservation systems, their management and exchange

Various potential seed-conservation techniques:

- Community seed banks
- On-farm seed multiplication plots
- Participatory plant breeding
- Improvement of indigenous seed-preservation practices
- Farmer seed-training programmes

Various potential seed-conservation management options:

- Community seed-solidarity funds
- Community seed-diversity register
- Farmer seed networks
- Rural seed fairs and seed exchange
- Community committees of local seed experts/interested farmers
- Farmer Field Days

Source: Gari, 2003 (slightly modified)

Seed conservation strategies at the community level are very important for affected communities to assure that seed is available and local varieties are preserved.

3.2.3.4 Wild food plants

Wild food plants are supplementary food sources. They are relevant for food and nutrition security in arid and semi-arid ecosystems. In these climates, the collection of wild food plants is common as an inexpensive source of food, and to cope with poor yields. It also saves money for foods which would otherwise have to be bought at the market. In some areas, wild foods also have market value.

For households affected by HIV and AIDS, collecting wild foods can increase food variety and provide balanced nutrition. Not only children, but also the elderly and even people with limited physical strength, can still contribute to household nutrition by collecting wild food plants, which is normally less exhausting than farm work. (Gari, 2003; Gari, 2004)

The example presented in Box 9 further emphasises the importance of wild food plants for vulnerable households.

Box 9: Wild food plants – a Zimbabwean example

The University of Zimbabwe has initiated a project to promote wild food plants which can substantially contribute to food and livelihood security. Wild food plants still play an important role in Zimbabwe (and many other African countries). Because of HIV and AIDS, migration to towns, changes in land-use systems and natural disasters, a rapid loss of indigenous knowledge within the communities and generations has been observed. Additionally, wild food plants have often been neglected because of prejudices: ‘Wild foods are for poor men’.

Project objectives:

- Documentation of the use of wild species in a botanical database, including roots and tubers, leafy vegetables, fruits, edible mushrooms, edible grasses and seeds
- Research and documentation of their nutritional value and potential

Effects:

Communities in Zimbabwe make use of many wild foods, including leafy vegetables for porridge, wild fruit and berries, wild vegetables (e.g. a variety of okra types), and a wide range of tubers. These plants form an integral part of the daily diet for many rural people. They supplement vitamins, minerals and other nutrients to complement the staple crops eaten by many of the vulnerable households, including those headed by children or the elderly.

Source: Tsiho, 2007

www.gibbsmagazine.com/Wild%20Food%20Plants%20of%20Africa.htm

Even though the proportion of wild foods to overall food consumption is rather low and they do not cover all categories of food, wild food plants could be promoted to improve household food security, nutrition and income, in particular among vulnerable households. This could be done through the inclusion of instruction on the value of wild food plants into agricultural extension, and nutrition and health-care education. Further, community management systems for the conservation and sustainable use of wild food plants could be established. Knowledge about wild food plants (locations, seasonality, preservation, processing, edible/non-edible plants, etc.) is mainly transmitted from mother to child. Considering the changing family structures in affected households, this knowledge may no longer be adequately transferred. (Gari, 2003; Gari, 2004)

3.2.3.5 Medicinal plants

Medicinal plants play an important role in health care. For impoverished households, medicinal plants are often the affordable and locally available treatment option and are linked to the local culture. Therefore, medicinal plants are relevant in the response to HIV and AIDS in:

- Supporting the immune system and therefore reducing the risk of developing opportunistic infections,
- Improving appetite,
- Treating certain infections and diseases.

Agricultural projects should pay more attention to the promotion of medicinal plants and the accumulation of knowledge about them, also in the context of HIV and AIDS. Networking with traditional healers and researchers is important in this regard. The promotion of medicinal plants should be limited to those with scientifically proven positive effects. It is recommended to seek the advice of qualified health personnel because the effects of medicinal plants can differ depending on dosage, on different parts of the plant used (e.g. leaves, bark or roots), or intake together with other medicines. Some medicinal plants cause negative effects if combined with antiretroviral treatment!

3.2.4 Farm mechanization

The terminology 'mechanization' describes the tools, implements and machinery used to improve the productivity of a farm. Mechanization can be categorized as human, animal and mechanical technologies. Depending on the power source, technological levels have been broadly classified as hand-tool technology, draught-animal technology and mechanical-power technology. (Sims & Kienzle, 2006)

Box 10: Benefits of farm mechanization

- It increases productivity per unit area because of timely farming activities.
- It increases the area under cultivation (if enough land is available).
- It assists in carrying out certain tasks that are difficult to perform without mechanical tools.
- It improves the quality of work and products.
- It makes farming activities easier and therefore more attractive (it demands less physical strength).

Source: Sims & Kienzle, 2006

Until now, most of the benefits of mechanization in sub-Saharan Africa have been in the field of primary tillage, such as ploughing and the transportation of farm produce and other goods. Only in a few cases, have secondary operations, such as planting, weeding or harvesting benefited. Therefore, if the area under cultivation increases due to mechanization, the increased labour requirements for secondary operations must be considered in evaluating the overall benefit. (Bishop-Sambook, 2005)

Table 4: Issues and challenges for the different forms of mechanization

| Hand tools | Draught-animal power (DAP) | Tractors |
|---|--|--|
| <p>Availability of:</p> <ul style="list-style-type: none"> • Household labour • Cash to hire off-farm labour • Suitable and affordable tools (produced locally if possible) • Socio-cultural traditions, e.g. the preference for short-handled hoes | <p>Availability of:</p> <ul style="list-style-type: none"> • Suitable animals • Animal-husbandry skills • Feed/pasture • Veterinary services • Implements and spare parts • Artisans/blacksmiths • Extension services for training in DAP • Financial services • Socio-cultural traditions that may favour DAP, e.g. tradition of cattle-keeping <p>Other factors:</p> <ul style="list-style-type: none"> • Animal diseases • Limited DAP tradition • Security (likelihood of theft) • Geographical area not suitable for DAP (e.g. rainforest area, heavy soils, stony soils, etc.) • Need of physical strength | <p>Availability of:</p> <ul style="list-style-type: none"> • Appropriate tractors, machines and implements • Repair and maintenance services • Trained operators • Supplies of fuel, lubricants etc. • Implements for weeding and harvesting • Financial services <p>Other factors:</p> <ul style="list-style-type: none"> • Suitable plot sizes • Reasonable access to fields • Shape of fields • Reasonable distances between fields • High costs |

Sims & Kienzle, 2006 (slightly modified)

Box 11 explains the introduction of labour-saving methods in various fields of mechanization: hand tools, processing equipment, draught-animal power etc.

Box 11: The introduction of labour-saving technology – a Malawi example

The Salima Agricultural Technology Project (SATECH), initiated by UNIDO, started in collaboration with the Ministry of Agriculture in 2005. The main aim of the project is to prolong the productive life of PLHIV and people with other sicknesses through the promotion of labour-saving technologies in the area of agricultural productivity (e.g. draught–animal implements, small-scale trades, agricultural hand tools, postharvest and food-processing equipment).

Potentially suitable and culturally acceptable labour-saving technologies (LST) were identified in participatory workshop sessions with interest groups from the 17 target communities.

Some activities:

- Reducing the workload for women: the establishment of village boreholes to reduce time for fetching water and ensure clean and safe drinking water;
- Introduction of locally manufactured oxen carts and other labour-saving tools; training of local artisans in making and repairing tools;
- Support for orphans: training in technical and managerial skills in the area of carpentry, motor vehicles, tailoring and welding; agricultural and horticultural training and starter kits for small businesses;
- Improving the effectiveness of community/grassroots organizations.

Effects:

- Households headed by women and children, and households with OVC and other vulnerable community members were able to diversify and increase their agricultural and non-agricultural income.

UNIDO: www.unido.org

www.unido.org/fileadmin/import/82870_malawi_FactsheetGC.pdf

Remark: Unfortunately, the example does not provide detailed information on various LST. Further, it does not provide information on how boreholes are managed to assure that everybody has equal access, and if the boreholes are managed and maintained well.

The following subchapters describe mechanization in the context of HIV and AIDS. Besides the mechanization of farm work, household mechanization is discussed.

3.2.4.1 Hand tools

Hand tools are the farm implements most widely used by small-scale farmers throughout sub-Saharan Africa and many other developing countries. They are used for land-clearing, primary soil tillage and ongoing farm operations, such as weeding. But only a limited plot of land per person can be cultivated with hand tools because work with hand tools can be very strenuous and relatively slow (Sims & Kienzle, 2006). Further, many households do not possess enough essential hand tools for all the family members.

In countries with a high HIV-prevalence, it is important to identify tools which are appropriate for women, children and the elderly, due to the high number of households headed by only one parent, an elderly person or a child because of the high adult mortality.

Box 12: Essential ergonomic aspects of hand tools

| |
|---|
| <p>Ergonomic aspects involve:</p> <ul style="list-style-type: none"> • Type of work and work intensity • Physical work capacity • Work intensity and workload • Gender-specific tasks in agricultural work (e.g. women weeding – men cultivating) and, accordingly, appropriate tools • Avoidance or reduction of exhausting work methods <p>Source: Sims & Kienzle, 2006</p> |
|---|

Table 5 provides an overview of potential tools for affected households.

Table 5: Light agricultural tools

| Tool | Uses | Benefits | Constraints |
|---|--|---|---|
| <ul style="list-style-type: none"> • Long-handled light hoes, push/pull hoes, tined hoes, wheeled hoes | <ul style="list-style-type: none"> • Specially designed hoes, best used in row cropping for primary and secondary tillage | <ul style="list-style-type: none"> • Time savings, e.g. compared to short-handled hoes • Tools easy to fabricate, repair and maintain • Low investment costs • No additional skills needed to use the tools for primary and secondary tillage etc. | <ul style="list-style-type: none"> • Cultural and gender attitudes towards hoes (Traditionally, heavy, short-handled hoes are used in most African countries.) |
| <ul style="list-style-type: none"> • Hand-jab planter (hand tool for planting into soil cover with very simple hand-pulled or pushed seed drills) • Mainly for conservation agriculture | <ul style="list-style-type: none"> • For cultivation (digging holes, planting, closing the holes) | <ul style="list-style-type: none"> • Reduces labour/energy demand, e.g. compared to hand tools • Requires only one person for planting with three processes at once (digging holes, planting, closing the holes) • Can be produced locally • Ability to penetrate trash | <ul style="list-style-type: none"> • Widely used in Brazil/Paraguay, not common in Africa • Takes some time to get used to the tool |
| <ul style="list-style-type: none"> • Single-axle tractor | <ul style="list-style-type: none"> • Primary and secondary tillage | <ul style="list-style-type: none"> • Improved quality and timeliness • Can be used on small-plot holdings (small size) • Can be used for rental services | <ul style="list-style-type: none"> • Sophisticated (usually imported) • High cost compared to draught-animal power or hand tools • Might therefore not be feasible for affected households |

Sources: FAO (Labour Saving Methods), FAO-SARPN
www.sarpn.org.za/mitigation_of_HIV_AIDS/m0008/index.php

In regard to HIV and AIDS, measures using lighter hand tools, in particular lighter hoes, are promising because they are cost-effective and present low risks for affected households. Unfortunately, not enough case studies were found on the adoption rates of various tools when promoted.

3.2.4.2 Irrigation systems

Small-scale irrigation projects can significantly extend the growing period of some crops and thereby improve the productivity of affected households. Crops can be grown off-season as a promising income-generating activity. Year round cultivation can potentially increase overall productivity by 200-300% (International Development Enterprises).

Some irrigation systems may be appropriate and affordable for affected households, as they are relatively easy to handle and maintain. Promising irrigation systems are treadle pumps and drip irrigation (FAO – Small-Scale Irrigation; Bishop-Sambrook, 2005), as well as rainwater harvesting or the use of greywater (ECA, 2006). However, costs will arise for the purchase and maintenance of the irrigation system. In regard to sustainability, access to spare parts for repairs and skilled (local) people to carry them out are essential.

Treadle Pumps are foot-operated water-lifting devices that can irrigate small plots of land (0.1 to 0.4 hectares) in regions with higher water tables (not lower than 8 metres). It is a very suitable technology for smallholders, because of the simple design, easy management and low investment costs.

- Treadle pumps can easily be run by women and children.
- They can be used in remote areas because they do not depend on fuel/electricity.
- They have low capital and maintenance costs, good portability and high discharge.
- The major disadvantage is the low suction, which makes treadle pumps unsuitable for deep wells. (FAO Small-Scale Irrigation/International Development Enterprises)

The example in Box 13 shows the high potential of treadle-pump irrigation for improving food security in Southern Africa.

Box 13: Treadle-pump technology – a Southern African example

Background – Treadle-Pump Irrigation in Southern Africa

The treadle pump is one of the fastest-expanding small-scale irrigation technologies in Southern Africa, most common in Malawi. Since 1990 more than 120,000 treadle pumps have been distributed (for a total of 48,000 hectares). It is also very common in Zimbabwe and Mozambique. Treadle-pump irrigation is not only increasingly important for vegetable production, but also as a risk-management strategy for cereal production and income generation through the sale of farm produce throughout the year, for instance.

Source: FAO – Small-Scale Irrigation

Drip irrigation involves dripping water onto the soil at very low rates (2-20 litres/hour) through plastic pipes fitted with dripper outlets. Water applied close to the plants is channelled to the roots. This is most suitable for crops grown in rows, e.g. vegetable production.

Some remarks:

- The use of drip kits saves labour and water and it allows diversification and an intensification of crops.
- Drip irrigation for vegetable production among vulnerable households (often affected by HIV and AIDS) in Southern Africa is rapidly expanding.
- Drums and their transport come at a cost.

The potential of drip irrigation to increase income and food security in Southern Africa and the challenges faced are further highlighted in Box 14.

Box 14: Drip irrigation – a Lesotho example

Background – Drip irrigation in southern Africa

FAO was the pioneer for drip irrigation in 2000. Since then, many other organisations, e.g. USAID-LEAD and IDE in Zimbabwe, World Vision and CARE in Mozambique and Lesotho have distributed more than 50,000 kits in Zimbabwe alone.

Case study:

FAO has been assisting communities in the lowlands of Lesotho with the establishment of small-scale irrigation. FAO targets families that are vulnerable and/or affected by HIV and AIDS and whose food security is precarious.

Main activities and objective of the project are:

- To produce and distribute drip kits;
- To promote crop diversification to improve nutritional security;
- Increase of household income through the sale of vegetables.

Beneficiaries receive a tank, a drip-irrigation kit and adequate training to use and maintain them. Further, training in crop diversification is provided.

Voices from beneficiaries and project staff:

‘The drip irrigation is working very well, because it saves water. I even work on bigger fields now. I have control over the water. Vegetables grow well’.

‘Our standard of living has improved through the sale of vegetables. I can afford to buy medicine for my sick husband’.

Beneficiaries are very enthusiastic. Yields have generally increased, while time and water have been saved. Besides, an increase in income and food security has been reported.

Challenges:

Among the many problems are rodent attacks and theft.

Sources: FAO – Small-Scale Irrigation; Plan International

Small-scale irrigation has the potential to increase production considerably. The examples of drip irrigation in Southern Africa and treadle-pump technology show that these offer promising responses to HIV and AIDS. The introduction of these technologies needs to be combined with savings and credit schemes and with training to assure adequate maintenance of the equipment and, thereby, long-term sustainability.

3.2.4.3 Draught-animal power

Draught-animal power (DAP) is considered an affordable source of power for small-scale farmers. It is suitable for cultivating and maintaining small areas of land. Households owning draught animals can cultivate an area of 4 ha per year compared to 1 ha for households without DAP. The workload of a pair of oxen is around 10 to 20 times higher than that of a single human in traditional full-tillage systems. In addition to that, DAP can be used to transport products and for income-generating purposes by renting out DAP services. (Sims & Kienzle, 2006)

Box 15: Potential uses of draught-animal power

- Crop production: ploughing, planting, weeding, crop harvesting, field irrigation, crop processing, manure
- Food production and processing: milk, meat, offspring production, milling
- Food distribution and rural trade
- Transportation: yields, water and fuel wood
- Water: transport of water, water-lifting, logging
- Construction: water ponds, roads, road maintenance
- Fertilizer: manure

Source: FAO

www.fao.org/ag/ags/agse/chapterps1/chapterps1-e.htm

Animals such as oxen (most common), bulls, cows, buffaloes, horses, mules, donkeys and camels can be used for DAP. The number of hours draught animals can work per day depends mainly on the animal species, climate, time of day, and the health and nutritional status of the animal. It varies from around 3 to 6 hours per day.

In many countries draught animals are mainly used for primary tillage (e.g. ploughing) and not enough advantage is taken of their high work-capacity for secondary tillage. DAP is also used for income-generating purposes, but hired DAP services are often paid in kind, e.g. by reciprocal labour or other local services.

For low-depth tilling, planting and weeding, the use of a single animal with suitably designed harnesses is sufficient. (Bishop-Sambrook, 2005)

Table 6 provides an overview of various implements used for DAP and their benefits and disadvantages.

Table 6: An overview of implements used for draught-animal power

| Implement | Use | Advantages/Disadvantages |
|---|---|---|
| Mouldboard plough (most common tool) | <ul style="list-style-type: none"> • Ploughing • Weed control | <ul style="list-style-type: none"> • Leaves the soil surface unprotected; great risk of erosion |
| Narrow-tined chisel plough/ripper (not very common) | <ul style="list-style-type: none"> • To cut open the soil in a narrow furrow | <ul style="list-style-type: none"> • Soil remains protected with surface organic matter • Very interesting: energy and time savings, less soil erosion |
| Ridgers (commonly used in sub-Saharan Africa) | <ul style="list-style-type: none"> • To shape soil into ridges • To control weeds | <ul style="list-style-type: none"> • Prepare ridges: reduction of soil erosion, better water retention, weed control • The manual preparation of ridges is more labour intensive. |
| Ox-cart | <ul style="list-style-type: none"> • Transportation | <ul style="list-style-type: none"> • It can be used for the transportation of a wide range of products. |

Sources: Sims & Kienzle, 2006; Bishop-Sambrook, 2005

Some recommendations for the promotion of DAP in the context of HIV and AIDS:

- Do not introduce DAP in systems where people are not used to keeping cattle at all; the failure rate is high for impoverished households.
- Increase the productivity of draught animals: use one animal instead of one or two pairs.
- Promote skills and practices related to animal nutrition and health.
- Introduce new equipment:
 - The magoye ripper to loosen the soil without turning it: reduces soil erosion and increases moisture retention;
 - The magoye ripper with a planter attachment: soil is loosened and directly planted;
 - The no-tillage direct planter: seeds are directly planted in unprepared land; saves the time for clearing the field and requires one ox only;
 - Knife rollers: cover crops and broad-leaf weeds are chopped by a roller prior to planting; suitable for no-tillage systems.
- Promote reciprocal exchange: establish pools of labour, draught animals and implements within communities. (FAO HIV/AIDS Programme)

The case study from Namibia presented in Box 16 reports on the experience gained in the introduction of improved animal traction tools – mainly ploughs or cultivators

– to vulnerable households in a wider project scope. The target population in the area is used to rearing cattle and to DAP technology, which is an important precondition for the successful introduction of DAP in affected households.

Box 16: DAP in the context of HIV and AIDS – a Namibian example

The 'Productivity Upliftment Micro-Projects Project (PUMP)' was run from 2003-2005 in 9 provinces in Northern Namibia. All provinces face high HIV-prevalence, resulting in severe labour constraints for affected households. Animal raising and DAP are a common feature in the area.

Objective:

Improved DAP practices and, thereby, food security among impoverished households.

Strategy:

- Provision of vouchers for veterinary services, a set of tools, small livestock and for animal health kits;
- A voucher system leaving a certain amount of choice to the households;
- Input linked to training, with a 10% cash contribution by beneficiaries;
- Collection of material input by local artisans, who were trained by the project.

Effects:

- DAP implements:
 - Some beneficiaries opted for ploughs, which resulted in timely planting (no hand-cultivation required), and better yields because fields were prepared when the rainy season started.
 - Other beneficiaries opted for cultivators which could be used for weeding. Regular and more effective weeding finally resulted in better and more secure yields.
 - The most positive effect of the cultivators was their labour-saving attributes, a big impact in an area with many affected households.
 - The Increase in yields was 35% for households which opted for cultivators compared to 25% for households using ploughs.
 - The increase in the area under cultivation was 30% for households which opted for cultivators compared to 20% for households using ploughs.

Recommendations:

- More cultivators should be given to resource-poor households.
- A next step could be the introduction of planters for labour-saving purposes.
- The voucher system, allowing free choices and providing training for local artisans, was very successful and could be an approach for other projects as well.

Source: Centre for Tropical Veterinary Medicine, 2006

Remark: It was not clear in the study if (some) of the households which opted for cultivators already had ploughs or not.

In many countries, DAP is and will continue to be an important power source for farm operations, mainly for primary tillage (Ellies-Jones et al., 2004). Also for households affected by HIV and AIDS, access to DAP saves considerable time and energy (Bishop-Sambrook, 2003; Centre for Tropical Veterinary Medicine, 2006). Nevertheless, a study from Zimbabwe has revealed that poorer households (including households

headed by women or grandparents) hardly ever possess draught animals and depend on hiring services or reciprocal arrangements, which often delays tillage and makes the use of DAP less effective (Ellis-Jones, 1999). DAP demands labour, which might be a constraint for its use by people with HIV, the elderly, youth or children.

Therefore, the promotion of DAP for households affected by HIV and AIDS may mainly be a viable option if many households in the area already own draught animals and possess basic DAP and animal-husbandry skills. The availability of enough land or cash for fodder must also be considered. The example from Namibia presented in Box 16 shows that, in particular, the introduction of secondary tillage equipment can considerably improve farm yields.

3.2.4.4 Use of tractors

For smallholder farmers, it is not economically feasible to own and maintain a tractor. They depend on government schemes or private operators. In most cases, government-owned tractor hire schemes are not functional and do not alleviate poverty or increase farm production. The concept of privately owned and operated tractors for rental offers some advantages and has to be explored further. (Sims & Kienzle, 2006)

For affected households, the promotion of alternatives to tractors is definitely more sustainable. The situation differs for associations or cooperatives (e.g. of PLHIV or where some members are infected or affected) as they can more easily meet the requirements than a single household.

3.2.5 Energy- and time-saving methods, water, hygiene and sanitation on a household level

A wide range of household activities such as fetching water and firewood, or cooking and doing the laundry, consume a lot of time and energy. In particular, women and children are involved in these tasks. Households taking care of a chronically sick family member, or those that have lost a family member, are most likely to experience an increase in workload and changing working patterns. Energy- and labour-saving methods for the household can offer significant relief. Therefore, the introduction of technologies/new approaches to reduce time and energy needs for daily household activities are crucial for affected households. Table 7 provides an overview of possible areas for improvement: cooking, water supply, hygiene and sanitation.

Table 7: An overview of energy- and time-saving methods, hygiene and sanitation on a household level

| Cooking | Water supply | Hygiene and sanitation |
|--|---|---|
| <ul style="list-style-type: none"> • Time and energy-saving cooking equipment • Placing woodlots/agro-forestry/trees and shrubs close to the house to save time when fetching fire-wood • Introducing grinding machines for faster processing (at household or community level) | <ul style="list-style-type: none"> • Domestic roofwater harvesting • Run-off-water collection (cistern) • Community boreholes • Wells • etc. | <ul style="list-style-type: none"> • Water purification methods like water filters, UV-disinfection etc. • Hygienic preservation of food and water • Stable for animals separate from kitchen/bedroom • Clean and well-kept latrines near the homestead • Clean shower |

Source: FAO, 2002

<ftp://ftp.fao.org/docrep/fao/007/ae502e/ae502e04.pdf>

www.fao.org/hiv aids/publications/farming_en.htm

Innovations in the field of cooking can save valuable time. Further, gentle cooking methods improve the nutritional value of food; in particular, they preserve vitamins. Improved access to safe drinking water and clean sanitation reduces exposure to communicable infections and is extremely important for the health of people living with HIV. Latrines near the homestead make it easier to relieve oneself in times of sickness and for caregivers of bed-ridden family members.

Unfortunately, there is a lack of literature evaluating innovations in energy-saving methods, hygiene, water and sanitation in the context of HIV and AIDS. Some possibilities are presented in the following subchapters.

3.2.5.1 Labour-saving cooking equipment

Cooking is very time-consuming for many women in developing countries. Further, cooking often involves fetching fuel, which also takes a lot of time and energy. For households burdened with labour constraints, the introduction of fuel- and labour-saving cooking equipment can be very beneficial. The time saved can be used for income-generating activities and caring for a sick household member.

Table 8 provides an overview of available devices and Table 9 demonstrates the benefits of insulated baskets.

Table 8: Energy-saving cooking equipment

| Equipment | Advantage | Disadvantages | Challenges to adoption |
|---|--|--|---|
| Wood-burning, fuel-efficient stove with high combustion efficiency (e.g. with clay liners) | <ul style="list-style-type: none"> • Saves labour by making more efficient use of firewood; less time spent on collection • Uses less wood; environmentally friendly • Manufactured locally | <ul style="list-style-type: none"> • Incorrect use can damage the stoves. | <ul style="list-style-type: none"> • Although the construction cost is low for a fuel-efficient stove, it is more expensive than an open fire. • Requires changes in attitudes and traditions |
| Insulated basket or box ¹ : <ul style="list-style-type: none"> • Basket or box insulated with old cloths, newspapers, hay or polystyrene etc. | <ul style="list-style-type: none"> • Saves labour; less time spent on firewood collection • Low-cost • Can be manufactured locally • Easy to handle • Other tasks can be performed. | <ul style="list-style-type: none"> • Increases overall time for food preparation (slightly) | <ul style="list-style-type: none"> • Requires changes in attitudes and traditions |
| Two-pot stoves | <ul style="list-style-type: none"> • Reduce wood consumption compared to single-pot stoves • Manufactured locally | | <ul style="list-style-type: none"> • Costs • Availability |
| Stoves with a chimney | <ul style="list-style-type: none"> • Minimal smoke emission; less lung disease • High combustion efficiency • Specific skills needed for manufacture | <ul style="list-style-type: none"> • The chimney must draw up smoke; if not, a lot of heat is lost. | <ul style="list-style-type: none"> • Construction costs • Requires changes in attitudes and traditions |

Source: FAO, 2002

www.sendacow.org.uk/energy-saving-stoves

¹ Already partially cooked food can be placed in insulated baskets/boxes; the heat retained on the stove can be used for the further cooking process.

Table 9: Time saved through insulated baskets

| Food | Usual cooking time on the fire | Cooking time using insulated baskets | | Cooking time on the fire saved for other duties* | Overall cooking time: on the fire plus in insulated baskets** |
|----------------|--------------------------------|--------------------------------------|------------------------------|--|---|
| | | Cooking on the fire | Time in the insulated basket | | |
| Maize/beans | 2 hours | 35 min | 3 hours | 1.5 hours | + 1.5 hours |
| Green grams | 1 hour | 30 min | 1.5 hours | 30 min | + 1 hour |
| Sweet potatoes | 30-40 min | 10 min | 30 min | 20-30 min | About +10 min |
| Cassava | 20 min | 10 min | 30 min | 10 min | + 20 min |
| Rice | 25 min | 5 min | 30 min | 20 min | + 10 min |
| Chicken stew | Frying plus 1 hour | Frying plus 5 min | 1 hour | 45 min | + 5 min |

* The cooking time on the fire when insulated baskets are used (third column) minus the usual cooking time (second column)

** Cooking time on the fire plus using an insulated basket (third plus fourth columns) minus the usual cooking time (second column)

Source: Home Economics Service, Busia: In Bishop-Sambrook, 2003

The introduction of insulated baskets definitely has advantages for affected households: an insulated basket can easily be made in the household, and at minor cost. It saves cooking time and costs: while women might have to be close to the kitchen while cooking food on a stove, they can carry out other tasks while cooking with the insulated basket. Where fuel has to be bought, an insulated basket saves both costs and time. Further, the production of insulated baskets could also become an income-generating activity for affected households or support groups.

Generally, projects aiming to introduce energy- and labour-saving cooking equipment for impoverished households have to find culturally acceptable equipment which is low in cost and easy to handle, manufacture and maintain. Apart from the above-mentioned aspects, energy-saving cooking equipment has less negative effect on the environment.

3.2.5.2 Preservation and processing

Poor handling and storage result in substantial losses in agricultural products. Food which is contaminated because of poor storage facilities can be a health danger. In particular, crops affected by fungus/fungi such as aflatoxins and other mycotoxins present a problem for PLHIV, because their immune system is generally weak. (Stein, 2008)

A wide range of processes and equipment are available to facilitate the processing of food. These technologies help save time and energy in food processing and reduce post-harvest losses, thereby increasing the overall value of the crop. (FAO: Labour Saving Technology). Nevertheless, there are few examples that really work for households affected by HIV and AIDS, because of their financial constraints and the risks involved in trying out new ideas.

Table 10 provides an overview of various types of labour-saving equipment and their potential benefits for affected households.

Table 10: An overview of labour-saving processing technologies

| Technology | Benefits | Constraints |
|--|---|--|
| <p>Manually operated strippers and shellers, e.g.</p> <ul style="list-style-type: none"> • <i>Groundnut strippers</i>: separate the pods from the plant • <i>Groundnut shellers</i>: a rasp bar scrapes the groundnuts • <i>Maize shellers</i>: remove kernels from the cob | <ul style="list-style-type: none"> • Yield a much cleaner product than traditional threshing (no mixture of grains and pulses) • Save labour; a much higher work volume compared to manual practices • Can be used as an income-generating activity by providing the service to others | <ul style="list-style-type: none"> • Complex equipment • High cost of purchasing and running the machinery • Skills are required for safe operation and handling • Not very suitable for individual households; better on a group level • Infrastructure required, e.g. electricity (if run by engine) • Business might fail because of low purchasing power in many areas |
| <p>Manual cleaners for grains and pulses, e.g.</p> <ul style="list-style-type: none"> • Simple wooden and steel-enclosed fan mills using sieves and screens • 150-300kg per hour | <ul style="list-style-type: none"> • Save labour; reduce bottlenecks during peak periods • Clean, undamaged, pest- and disease-free produce fetches higher prices. • Equipment easy to manufacture, maintain and repair; very durable • Simple to operate | <ul style="list-style-type: none"> • Modest increase in work rate might not justify the cost of the equipment • Some cleaning equipment only needed for a short period of time per year; investment not justified |
| <p>Motorized cleaners for grains and pulses, e.g.</p> <ul style="list-style-type: none"> • From simple to complex (some also grade the seed) • Many are mobile • 1-4 tonnes per hour | <ul style="list-style-type: none"> • Save labour, reduce bottlenecks during peak periods (more than manual operating devices) • Clean, undamaged, pest- and disease-free produce fetches higher prices. • Business option | <ul style="list-style-type: none"> • Some cleaning equipment only needed for a short period of time per year; investment not justified • High cost of private ownership; high financial risk • Requires skills for correct handling • Infrastructure support required (electricity, generator) • Business might fail because of low purchasing power in many areas |

| Technology | Benefits | Constraints |
|---|--|--|
| <p>Crop processing, e.g.</p> <ul style="list-style-type: none"> • Cassava root cutters and graders reduce labour considerably • Screw or hydraulic presses can be used for several types of oil seeds, e.g. palm kernels, shea nuts, groundnuts, soya beans, sunflowers and for cassava dough. • Bielenberg ram press mainly used for groundnuts, soya and sunflowers • Centrifugal crackers for palm oil: break the shells of palm-oil kernels • Rice hullers: 14kg/hour • Rice polishers: remove the bran after hulling • Coffee pulpers: 2.2t/per hour with a 2kW motor • Coffee hullers: 180kg/h with a 4kW motor | <ul style="list-style-type: none"> • Higher output per hour compared to traditional methods • Improved processing methods increase the nutritional value of the crops. • Business opportunities: sale of processed crops, e.g. palm oil, and/or hiring of machinery • Most of this machinery is very durable (e.g. presses); easy to manufacture, maintain and repair • Financial input and risks can be minimised through group-based business operations. | <ul style="list-style-type: none"> • High capital investment, in particular for motorized equipment (diesel or petrol engines) • Product has to be clean and free of mould, fungal infections and pests • High running costs: fuel and general maintenance • Relatively high financial risk if business fails, e.g. in an area with low demand; therefore, rather an option for a group than an individual household. • Good infrastructure required for supply, maintenance and servicing of the equipment |
| <p>Draught-animal equipment, e.g.</p> <ul style="list-style-type: none"> • For crop-processing machinery, such as drive presses and crushers or grain mills | <ul style="list-style-type: none"> • The slow rotational movement of animals around an axis is used to provide the much higher rotational speed required to operate machinery. • If draught animals are available, this is a labour-saving method compared to hand operations and cheaper than a motorised option. • Business option | <ul style="list-style-type: none"> • Availability of draught animals • Extra equipment has to be purchased. |
| <p>Motorized grain mills, e.g.</p> <ul style="list-style-type: none"> • Plate mills: 270kg/hour with a 5kW motor • Roller mills: 400kg/hour with a 4kW motor • Hammer mills: 240kg/hour with a 5kW motor | <ul style="list-style-type: none"> • Higher output compared to traditional methods • Improved quality and nutritional value of the crop • Business opportunities • Machinery is durable; easy to manufacture, maintain and repair | <ul style="list-style-type: none"> • Product has to be free of mould, fungal infection and pests • High initial costs; high operation and maintenance costs • Relatively high financial risks; in particular, if service is not in demand in the area • Good infrastructure required. |

Source: FAO, Labour-Saving Post-harvest Operations
www.fao.org/sd/teca/tools/lst/module3_en.html

Table 11 provides examples of various types of improved storage facilities, starting with stores which can be made of local materials to more sophisticated stores made of metal.

Table 11: An overview of improved storage facilities

| Technology | Benefits | Constraints |
|--|---|--|
| <p>Improved storage facilities e.g. storage-jars,</p> <ul style="list-style-type: none"> • made of local materials, but improved designs • made of metal (e.g. drums or corrugated iron bins) • made of burnt bricks plastered with cement • made of ferro-cement • made of high-density polythene and wood <p>→ All improved stores should be rodent proof; e.g. with collars on the stands to prevent rodents from climbing up.</p> | <ul style="list-style-type: none"> • Reduction of losses and improved quality of stored food (increased overall yield) • Adequate storage facilities are an important aspect for food security (food free of fungal, pest and rodent attack), in particular for PLHIV • Marketing strategy: increased prices for stored products sold in times of food scarcity • Income-generating activity for groups • Local materials can be used; only modest training in design and construction required • Low cost for improved traditional designs made of local materials | <ul style="list-style-type: none"> • High initial costs if improved stores require new materials, but beneficial investment in the long run because of reduced losses, better quality of stored products and durability |

Source: FAO, Labour-Saving Post-harvest Operations
http://www.fao.org/sd/teca/tools/lst/module3_en.html

Most vulnerable households are not able to afford and maintain processing equipment. The only option is to buy the equipment as a group, probably with microfinancing. Crop-processing machinery is particularly promising because the processed crop can later be sold at the market at a favourable price.

High-quality food free of mould, fungal and parasite infestation is crucial not only for PLHIV, but also for the population in general. Measures to improve storage should be speeded up, especially for the improvement of local storage techniques, which require low investment and few skills and are easily manufactured locally. For communities or self-help groups, jointly constructed and managed storage facilities may be of advantage. Unfortunately, very little literature was found on labour-saving processing equipment and storage in the context of HIV and AIDS.

3.2.5.3 Safe drinking water and sanitation

According to UNICEF (2000) 'Access to safe drinking water and a sanitary means of human excreta disposal is a universally acknowledged requirement, and indeed, a basic human right which is key to human development and poverty alleviation'. In response to HIV and AIDS, access to safe drinking water and sanitation is very important. For example, through the consumption of safe drinking water, water-borne diseases can be avoided. Safe drinking water is part of good nutrition. Hygienic sanitation facilities near the homestead are crucial for PLHIV and family members who take care of a sick person. In general, good hygienic conditions reduce the exposure to germs and provide essential support for the immune system, which is crucial for PLHIV (Stein, 2008; NAC, 2003).

The following section further explains, why access to water, sanitation and hygiene is particularly important in the context of HIV and AIDS.

Staying healthy: Access to safe drinking water and good sanitation are important factors for PLHIV. They support the immune system and reduce exposure to germs.

- PLHIV and their families should be made aware of the advantages of hygiene and the safe handling of water.
- Access to adequate quantities of safe water is important for the body, general hygiene, and the preparation of safe food.
- Access to latrines is part of good hygiene.

Home-based care: Access to safe water in adequate quantities is very important for quality home-based care services. Safe water is needed for drinking, taking medication, patient care, personal hygiene and a clean home environment, for example.

- Access to water and sanitation increases a (sick) person's dignity.
- A sufficient water supply is important for personal hygiene, e.g. washing, cleaning, taking a shower, washing the dishes and cleaning latrines.
- For hygienic reasons and personal well-being, latrines should be close to the house.
- Education on safe water and sanitation should be included in all home-based care training.

Feeding infants: HIV-positive mothers might transmit the HI-virus to the child by breastfeeding. If an infant is given the bottle, however, safe drinking water is crucial. There are advantages and disadvantages to bottle-feeding. Specialised local health personnel can make recommendations.

- HIV-positive mothers need to be told the advantages and disadvantages of breastfeeding versus bottle-feeding. The counselling should take the mother's specific situation into account.
- Mothers who decide to bottle-feed need training in hygienic cleaning, storage and use of the bottles. They also need information about costs.

- General knowledge about safe water, adequate sanitation and infant hygiene is also essential.

Water for food production: Access to sufficient and safe drinking water is important for healthy nutrition and can enhance food security (access to adequate and sufficient food).

- Access to safe water is important for the preparation of safe food.
- Safe drinking water reduces disease and, consequently, the costs for medication and illness in general; the money can be spent for other needs.
- Access to sufficient and safe water close to the homestead saves energy and time, in particular for women and children, who are usually responsible for fetching water. The number of school dropouts can be reduced if less time is spent on fetching water (and other duties), for example.
- Surplus water could be used for homestead gardening, small livestock and income-generation activities. That would enhance household food security considerably.

The water sector – the transfer of knowledge and income generation:

The loss of employees due to HIV and AIDS affects the water sector. Further, the transfer of knowledge and skills from parents to children is negatively affected wherever HIV and AIDS leave such a high number of orphans and vulnerable children.

- Education on water and sanitation should be on the school curriculum.
- The development of community action groups on water and sanitation, e.g. health clubs should be promoted.
- The water and sanitation sector offers employment opportunities. There is potential in training older OVC in latrine building, plumbing and other related professions. Selling water can be a source of income.

Sources: Wegelin, 2007; Kamminga et al., 2005; Kamminga et al., 2003; NAC, 2003; USAID/HIP, 2007

Safe drinking water is important for PLHIV and for the population in general. Several affordable water-purification options available for households could be promoted by projects.

In Table 12, some affordable water-treatment options are presented.

Table 12: Safe drinking water

| Water treatment techniques | Examples of treatment techniques |
|---|--|
| <ul style="list-style-type: none"> • Boiling • Chemical disinfection, e.g. hypochlorite solutions • UV disinfection/SODIS • Filtration <p>GENERAL: Knowledge about proper storage and handling of water and the application of that knowledge is important for any 'safe water' strategy</p> | <p>Simple sand water filters</p> <ul style="list-style-type: none"> • Large containers filled with graded sands and charcoal, with an outlet at the base • Benefits: improve water purity and reduce water-borne diseases <p>Kisii filter bucket</p> <ul style="list-style-type: none"> • Developed in Western Kenya in 2003, as a response to the low quality of water for domestic use • Low-cost, transparent PVC containers with a ceramic filter make up a water-filter system • The upper bucket has a 'standard' ceramic filter • The lower PVC bucket is well-closed for storage but has an outlet² |

Sources: FAO (Labour Saving Methods); Fairwater; USAID/HIP, 2007

Establishing water sources closer to the house to reduce the time and energy spent on fetching water is another important measure pertaining to water and sanitation for affected households. Besides the construction of centrally located water facilities like wells or boreholes, roofwater harvesting is a promising local technology. Depending on the quality of the roof and the storage device, rainwater can be used directly for domestic needs; it has to be purified for drinking purposes.

Important factors to consider when selecting rainwater-harvesting systems for domestic use:

- The size and the needs of the household
- The type and size of the catchment area
- Local rainfall data and weather patterns
- The length of the drought period
- Alternative water sources
- Technical and practical measures to prevent contamination of the water collected
- The maintenance of the facility
- The cost of the rainwater harvesting system
- Measures for the purification of potable water

² For more information: info@fairwater.org; <http://www.handpump.org/kisii/#top>

Important preconditions for the installation of roofwater-harvesting systems:

Collection area, e.g. a suitable roof:

- The roof should preferably be rectangular, consisting of corrugated iron, or tiled.
- Closely packed thatching (roof made of durable grasses) is also possible.
- The bigger the roof area, the more water can be collected.

Conveyance system of gutters and pipes:

- The gutters could possibly be made out of split bamboo or other local materials to save costs.
- If the tank is connected to several down-pipes, the amount of water collected can be increased.
- A separation unit should be installed before the inlet for the first, dirt-containing rainwater.

Storage facility:

The storage tank should preferably be constructed of an inert material such as reinforced concrete, ferro-cement (reinforced steel and concrete), fibreglass, polyethylene or stainless steel. The storage tank could also be made of stone, wood, metal, clay, calabash, plastic etc.

- The choice of material depends on local availability and affordability.
- A cover is needed to prevent mosquitoes from entering and breeding in the water, to avoid pollution and to prevent sunlight from stimulating the growth of algae.
- Security measures to prevent entry into the tank without permission are necessary.

Sources: FAO³, Khoury-Nolde⁴

Table 13 presents some of the benefits and constraints of roofwater harvesting. If households can afford to collect roofwater and if it is possible to install the tank at their homes, it is definitely a very viable option.

Table 13: Benefits and constraints of roofwater harvesting

| Benefits | Constraints |
|---|--|
| <ul style="list-style-type: none"> • It saves labour, as a water source at the homestead. • Clean water improves family health (very important for PLHIV). • Irrigation of a homestead garden might be possible. • Local materials can be used to save costs. • Water storage for dry seasons is possible. | <ul style="list-style-type: none"> • Adequate roof, gutters and storage tanks are important preconditions. This might not be an option for very poor households. • Low-cost designs are available, but they have limited storage capacity. • Training is needed. • Cleaning is required. • Efficiency depends on the climate: long dry seasons exist. |

³ www.fao.org/sd/teca/tools/lst/LSTP29_en.html

⁴ www.rainwaterconference.org/uploads/media/Rainwater_Harvesting_-_an_overview_.pdf

Table 14 provides an overview of various water-storage systems linked to roofwater harvesting and their benefits and constraints for affected households.

Table 14: Different water-storage systems

| Storage systems | Key features | Benefits/Constraints |
|---------------------------------------|---|---|
| Underground storage system | <ul style="list-style-type: none"> • Support for side walls • Lifting technique required (pump, bucket, etc.) | <ul style="list-style-type: none"> • Cheap to construct • Requires pump to lift the water • Difficult to clean |
| Partially-below-ground storage system | <ul style="list-style-type: none"> • Circular hole dug into the ground and lined with polyethylene or concrete plastering • Covered with a roof | |
| Above-ground storage system | <ul style="list-style-type: none"> • Constructed from galvanized sheets, ferrocement or bricks | <ul style="list-style-type: none"> • No pump required • Easy to clean • Easy to maintain |
| Runoff collection | <ul style="list-style-type: none"> • From an impermeable surface, such as granite • Stored in a tank and possibly piped downhill to the community • From any suitable area directly into a pond • Water quality depends on the surface: difficult if earthy | <ul style="list-style-type: none"> • Run-off water can be used for the household and irrigation. • Possible income-generating activities through irrigation |

Source: FAO – Labour Saving Household Technologies

Several projects work in the area of water, hygiene and sanitation, with target groups affected by HIV and AIDS. Boxes 17 and 18 present examples of water and hygiene measures adopted in Kenya and Uganda. Whereas the Kenyan project is located in an urban slum area, providing public sanitation facilities and relevant hygiene education, the Ugandan project works in a rural area, promoting roofwater harvesting targeted at impoverished households.

Box 17: Clean water and sanitation – a Kenyan example

Access to water and sanitation in the Kibera slum

Kibera, located northwest of Nairobi, is the largest slum in Africa. The slum is marked by poor sanitation conditions, which makes its inhabitants vulnerable to diseases. Again, the prevalence of HIV and tuberculosis is also high. AMREF started to improve health standards in two regions of Kibera in 1998.

Objectives:

- Improved access to health services, clean water and sanitation for 97,000 inhabitants;
- Reduction of the spread of HIV and improved availability of ART.

Main activities:

- 57 local labourers were hired to build 286 latrines and 45 water points and to discourage the dumping of human waste and excrements in plastic bags.
- Awareness sessions on health, sanitation and hygiene were held at five local schools.
- Community health workers and youth groups were employed to do regular clean-ups in residential areas.

Some of the effects (in the area of water and sanitation):

- Reduction in diarrhoea incidence from 24% in 2004 to 13% in 2006;
- Improved health services: Renovation of the local clinic, extensive training for local health workers;
- More clients for voluntary counselling and testing for HIV and tuberculosis.

Source: AMREF: <http://uk.amref.org/where-we-work/our-work-in-kenya/kibera-hiv-and-water-and-sanitation-kenya/>

Box 18: Roofwater harvesting – a Ugandan example

COMASA is a community-based organization (CBO) in Wakiso District, Uganda, founded in 2006. COMASA collaborates with the government. Their focus is on water, hygiene and sanitation, HIV and AIDS, and agriculture. The main target groups are the rural poor, in particular, the elderly, women and children. A key problem of the people in the area is limited access to safe drinking water. Women and children spend a lot of time fetching water even though the rainfall is 1200mm per annum on average. Since most of the households have corrugated iron roofs, the potential for rainwater collection was identified as a means of improving access to clean water and thereby improving the overall living standard.

Main activities:

- Awareness creation in target communities about the advantages of safe water, sanitation and good hygiene practices;
- Mobilization of community funds (mainly in kind) for the construction of water tanks and pit latrines.

Benefits:

- Communities are highly involved in the planning and construction of water-related improvements.
- Many households want to participate.

Challenge:

- Many households that want to participate are not able to contribute to the construction, in particular elderly women and households affected by HIV and AIDS. This is a major challenge.

Source: Kaagwa, 2009. www.nabuur.com/user/asuman-kaggwa/profile

Roofwater harvesting with aboveground storage systems seems to be a promising option for affected households with the common type of house constructed in the area. The example in Box 18 shows that financial constraints might not allow affected households to install a roofwater harvesting system despite the advantages. Programmes promoting roofwater use could be linked to microfinancing options, or payment by instalments could be allowed over a longer period of time.

3.2.6 Preservation and transmission of knowledge

HIV and AIDS affect knowledge systems: the transfer of knowledge within households and also on a community level. Indigenous knowledge built up over time in a local community could be lost due to HIV and AIDS. Certain life skills might not be transferred from parents to their children. The agricultural sector plays a key role in assuring the preservation and transfer of knowledge in the field of agro-biodiversity, sustainable, locally adapted farming systems, etc. on the community, household and individual levels. (Gari, 2003)

Some potential strategies are the establishment of local support groups, school garden projects, Farmer Field Schools⁵, Junior Farmer Field and Life Schools⁶, community knowledge centres⁷ and seed fairs (Bishop-Sambrook, 2004). The potentials and limits of school garden projects and (Junior) Farmer Field Schools are outlined in the following subchapters. Further, the role of agricultural extension in the transfer of knowledge is presented.

3.2.6.1 School garden projects

School gardens play a three-fold role in the response to HIV and AIDS.

- To improve the nutritional situation of orphans and vulnerable children (OVC): school gardens can supplement school feeding programmes.
- To provide food to the community: school gardens can provide food and enhance garden-based learning for the wider community.
- To educate children about food production, natural-resource management, and good nutrition (the transfer of practical life skills): children can apply innovative gardening practices at their own homestead. (FAO, 2007)

⁵ Groups of 25-30 farmers gain skills and knowledge in a wide range of topics as chosen by the group.

⁶ Groups of 25 OVC (boys and girls from 12-18) are empowered during a one-year training course in the fields of agriculture and life skills.

⁷ A strategy to record and share local knowledge, e.g. related to agro-biodiversity within and between communities. Some community gardens are established to collect, grow, store and supply planting materials, for instance.

Some recommendations for school gardens are presented in Table 15:

Table 15: Guidelines for school garden projects

| | |
|--------------------------|---|
| Purpose | The main purpose should be educational. |
| Target Group | All children (not only OVC) should be the primary beneficiaries. |
| Motivation | Interested teachers should be selected; they may also benefit from the produce. Competition and fun games between schools may enhance motivation and exchange. |
| Curriculum | Garden-based learning that is preferably linked to good nutrition practices, gardening skills, income-generating skills, practical life skills and business-management skills. Pupils will be able to manage a garden from planning, cultivation and harvesting to processing, preserving and presenting foods. |
| Technologies | Locally adapted crops and local resources could be promoted (with labour-saving methods if possible). |
| Collaboration | Various ministries (health, agriculture, education etc.) could be involved in the policy development. |
| Community-based | Planning may be done in a participatory manner, involving the community. |
| Management | Children have to be involved in garden management. |
| Capacity building | Networking and capacity building are needed among teachers, extension staff, communities and wider networks. |

Source: FAO, 2007

In many countries, no clear national policies and operational guidelines exist on how to run a school garden project. Schools typically face the following problems: lack of input, water, cultivation and maintenance during school holidays; school gardening being considered an extra burden for teachers, not part of the ‘normal’ curriculum; a concept more focused on production than on garden-based learning. Many school garden projects need assistance from NGOs (FAO, 2007).

Therefore, more emphasis has to be placed on the proper implementation of school garden programmes with the objective of promoting garden-based learning for children and communities and improving food security. Well-implemented school garden programmes can play an important role in the transfer of knowledge about agricultural practices to orphans and vulnerable children and knowledge preservation within local communities, also with regard to local crops and indigenous planting methods. Boxes 19 and 20 present two examples of school garden programmes in the context of HIV and AIDS.

Box 19: A school garden programme – a South African example

The **Food Gardens Foundation in South Africa** aims to overcome hunger, malnutrition and the effects of diseases.

- The foundation offers technical assistance and support to schools for establishing school gardens.
- The foundation tries to work with several schools in a given area.
- The management of the garden is left to the schools and involves the children.
- The foundation promotes competition through participatory and creative teaching methods like stage plays, songs, games, food festivals, and the distribution of certificates.

The garden curriculum combines a variety of academic disciplines. The success of the programme lies in the involvement of all key stakeholders: children, parents, educators and government departments.

Source: FAO, 2006

Box 20: A school garden and greening project – a South African example

Food and Trees for Africa, a foundation in South Africa, has been running school gardens and school greening programmes since 1994.

- The programme holds awareness campaigns and produces information materials.
- The programme has established 1,500 permaculture school gardens, with an emphasis on recycling, the integration of natural resources, and using soil and water more efficiently.
- The foundation supports 20 to 40 schools annually in the establishment of school gardens.

With the school gardens, the project supports income-generation for the schools, improves food security and runs community outreach projects.

The programme works in close collaboration with the Ministry of Education and harbours the vision that every school should have a school garden.

Source: FAO, 2007

School garden programmes have great potential to create interest and provide practical experience for students in regard to gardening activities. In the context of HIV and AIDS, they are of particular importance for the transfer of agricultural knowledge to orphans and vulnerable children. However, school garden programmes need a curriculum and proper implementation. It is not enough just to assign a motivated teacher. The teachers involved require special training and supervision, especially at the beginning.

3.2.6.2 Farmer Field and Life School

The Farmer Life School (FLS) and the Junior Farmer Field and Life School (JFFLS), developed by the FAO/IPM in South-East Asia has proven to be a successful approach for the transfer of knowledge about agricultural practices as well as for building life skills in adults and children.

Before FLS, participants attend the Farmer Field School (FFS). Farmers learn about various ecological interactions and experiment with natural pest control. This experience is used as an eye-opener. Farmers learn that their own actions can successfully influence the growth period and therefore the quality and quantity of the harvest.

The FLS builds upon the ability of farmers to assess their own actions, opportunities and risks. The ultimate goal is to enable participants to make effective decisions in their own lives, the lives of their families and within the community. The flexibility and the grassroots-orientated structure of Farmer Field Schools allow for broad community-mobilization initiatives.

Some key principles for the FLS approach:

- Local resource people, preferably having attended the FLS themselves, are used as facilitators.
- Participants consist of an equal number of men and women.
- Participants can follow up on issues raised in an FLS by organizing certain activities. Through the establishment of social networks, for example, the empowered individual can facilitate organized community action. (Guerny, 2002; Guerny et al., 2002; HSU, 2004)

Several examples show that the FFS, FLS and JFFLS are successful in HIV prevention, the transfer of knowledge about sustainable agricultural practices, and in responding to the effects of HIV and AIDS. Most participants of FLS and JFFLS acquire basic information on HIV and AIDS and general life skills. In this way, the concept contributes to HIV prevention. Because of the practical, self-responsible training in sustainable agricultural practices, whereby participants also gain other life skills, participants can better cope with the effects of HIV and AIDS. Box 21 presents an example of a JFFLS from Mozambique, where the ‘discovery and problem-solving’ learning concept of the JFFLS has sustainably increased the knowledge of OVC in the fields of agriculture, HIV prevention and human rights.

Box 21: Junior Farmer Field and Life School – a Mozambique example

Manica Province is characterized by high HIV prevalence and a huge number of OVC. That is why it was chosen as a pilot province for the JFFLS program by the government of Mozambique, FAO and WFP in 2003, adjusting the methodology once developed in Asia to the situation in Mozambique.

Children were selected on the following basis: maternal or paternal orphans, with an equal number of boys and girls between the ages of 12 and 18.

Main activities accompanied by an interdisciplinary team of facilitators:

- Living classroom concept: Children learn through practice about field preparation, sowing and transplanting, weeding, irrigation, pest control, utilization and conservation of available resources, utilization and processing of food crops, storage techniques, marketing/entrepreneurship skills for various crops (staples, legumes, etc.).
- In addition to agricultural training, life skills are provided: self-awareness, assertiveness, HIV prevention, gender equality, human rights, and children's rights.
- Creative methods are applied: art, theatre, dances, masks, all adapted to the local culture.
- Strategic partnership: WFP provides nutritious daily meals as a great incentive for attending the JFFLS.

Lessons learnt:

- The main strength was the empowerment of youth: discovery learning and problem solving are good educational tools for the transfer of knowledge and skills, and for uplifting self-esteem among OVC.
- The main problems were that the training and curriculum were weak; combining theoretical with participatory and practical teaching methods is still new in Mozambique.

Source: Djeddah et al., 2005

In order to assure the transfer of knowledge to OVC and to preserve traditional knowledge, knowledge preservation has to be a key concern in developing practitioners for the response to HIV and AIDS.

3.2.6.3 The role of agricultural extension

Agricultural extension plays a key role in the preservation and transfer of agricultural knowledge in the context of HIV and AIDS. Extension messages have to be adapted to the changing needs and structure of farm households and communities affected by HIV and AIDS. New strategies have to integrate HIV and AIDS awareness, land rights and education on nutrition (in partnerships with specialised organizations) as well as production issues and farm improvement techniques (Waal et al., 2003)

Unfortunately, in countries with high HIV prevalence, HIV and AIDS also affect the extension sector itself. Increased staff absenteeism and the loss of experienced staff due to loss of physical strength, sick leave and death inevitably disrupt existing extension services. This cripples the adaptation of extension messages to the changing needs of farmers (HIV/AIDS Guidelines for agricultural and rural development).

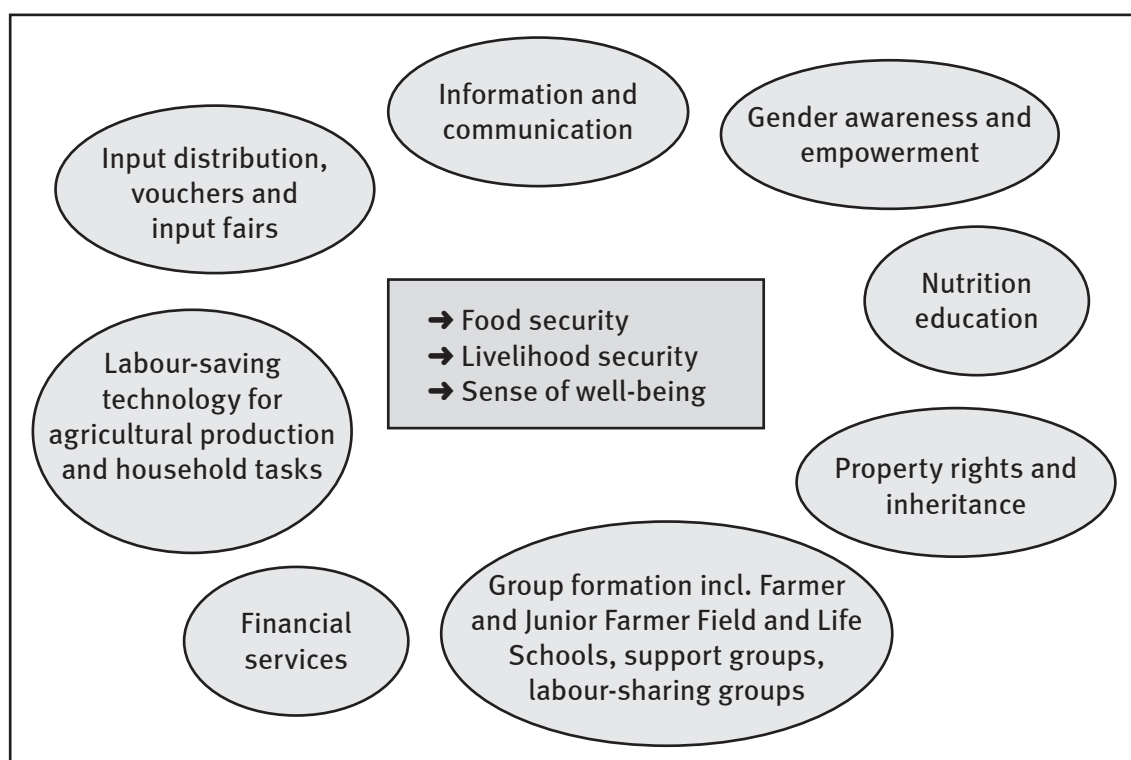
Some key strategies for extension services in a context affected by HIV and AIDS:

- If possible, training should be gender neutral, so that both men and women can be trained in all skills.
- Couples should be encouraged to transfer agricultural knowledge between each other and to their children early in family life, so that they all possess important knowledge and are able to apply it when the need arises.
- Community members should be encouraged to share knowledge among each other, so that more than one person has specific knowledge on certain important topics.
- Community seed banks should be established in order to secure a supply of seeds for the next planting season and preserve local varieties.
- Sustainable, labour-saving agricultural production technologies suitable for households headed by children, women, or the elderly should be promoted.
- New areas of intervention: HIV and AIDS awareness, nutrition education, land rights for women and children, water and sanitation issues, mainly in strategic partnerships with specialised organizations/government departments.

Source: Hlanze, 2006; Bishop-Sambook, 2004; NAADS, 2004

Figure 4 presents possible areas to be considered in agricultural extension in the context of HIV and AIDS, in collaboration with other sectors if possible.

Figure 4: Areas to be considered in the agricultural and rural development sectors



Source: Bishop-Sambook, 2004

4 Promising approaches for stimulating self-help potential

4.1 Introduction

This section provides an overview of community-based responses and grassroots mobilisation which are likely to mitigate the effects of HIV and AIDS on individuals, households and communities. Grassroots mobilisation has always been of key importance to development initiatives in sub-Saharan Africa and in other regions. The disruptive effects of HIV and AIDS on households and communities have resulted in increased levels of poverty, the loss of indigenous knowledge, an increased risk of the social and economic exclusion of affected households and the high number of orphans. Self-help mobilisation has now become even more crucial for overcoming the crisis brought on by HIV and AIDS. (Gari, 2003)

In aiming at improving the economic and social conditions of people living with HIV, including the affected family members and households, it is worthwhile to take a closer look at income-generating activities, microfinancing, savings & credit and the role of local support groups in terms of the challenges these face and the possibility of assisting them.

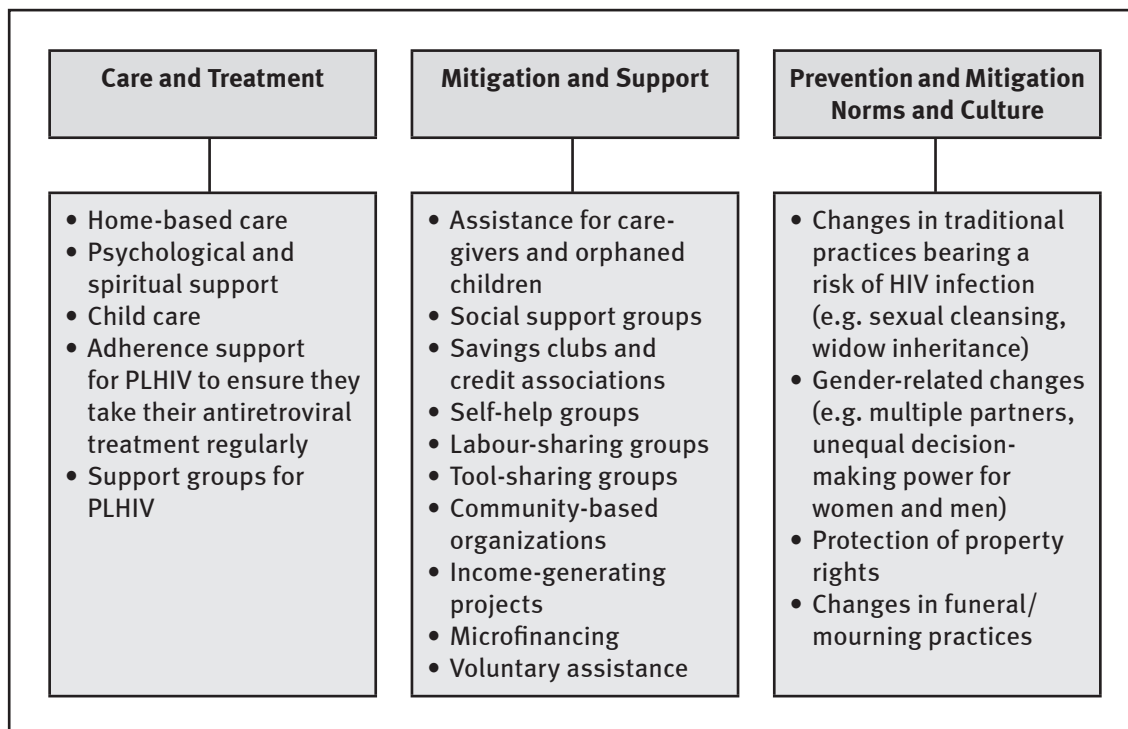
Mobilising and strengthening the self-help potential within groups and communities helps counteract labour and capital constraints. Labour-sharing arrangements, traditional savings and mutual assistance are good examples. Strengthening group and communal efforts may also reduce stigma and discrimination. (Waal et al., 2003)

Many communities have developed a variety of complex responses for coping with the overwhelming effects of HIV and AIDS. Community responses are usually carried out by different kinds of groups. Two major forms can be identified:

- Community-based indigenous initiatives without external support,
- Community-based initiatives supported by external agencies such as NGOs and FBOs (Mutuangadura et al., 1999).

Figure 5 presents an overview of formal and informal community responses in the area of prevention, treatment, care and support, and the mitigation of HIV and AIDS.

Figure 5: Community responses to HIV and AIDS



Source: Mutangadura et al., 1999

In every society there are local customs that may have positive or negative influence on the prevention of HIV infection and on the mitigation of the effects of HIV and AIDS. Sensitivity and knowledge of the cultural context will help to develop appropriate strategies. Inheritance rights of orphans and women are one of these aspects and will be examined in this chapter.

Orphans who have already lost one or both parents face psychological stress. The care, protection and education of orphans constitutes a big challenge. They have to find ways to make a living, and often they even have to take care of their sisters and brothers. Suitable responses to the specific condition of orphans and vulnerable children and strategies to build their future with are important.

Community involvement and self-help mobilisation is crucial but has its limits, as described below.

4.2 A systematic overview of promising approaches

4.2.1 Income-generating activities

In order to overcome the financial burden caused by HIV and AIDS, it is very important to introduce options that increase the disposable income of affected households and reduce their vulnerability. Suitable income-generating activities (IGAs) for affected households should require low inputs and demand little labour. In addition to that, the IGAs should assure a quick turnover and returns throughout the year. A multipurpose product with high local demand minimises the risk. Depending on the business, it should be located close to the homestead if possible (FAO, 2006; Lengkeek, 2004). The promotion of IGAs should be linked to micro-credit schemes, training in entrepreneurship skills and market access.

A study conducted in five countries (Zambia, Malawi, Zimbabwe, Kenya and Uganda) revealed that the predominant income-generating activities of women affected by HIV and AIDS were:

- **Crops:** gardening, gum-tree nurseries, mushroom production
- **Processing:** making peanut butter or sunflower oil
- **Crafts:** making cooked food, freezer pops, candles and soap
- **Animal production:** raising goats, pigs, and poultry; dairy farming, cattle rearing, fishing, beekeeping
- **Finance:** revolving credit programmes

The most effective IGAs were raising pigs, raising poultry, revolving credit programmes, and making peanut butter. Appropriate training and related skills were considered to be the most important factors for successful business activities. (Mutangadura, 2002; In: Mutangadura 2005)

According to the Economic Commission for Africa (ECA, 2006), raising pigs has been reported to be the most effective IGA for affected households because of low labour demands and attractive market prices. A study focused on Swaziland, Zambia and Mozambique revealed that the production of indigenous chicken has been a very successful IGA for affected households because it requires low starting capital and has a short production cycle.

Generally, IGAs based on revolving schemes seem to be very appropriate in many cases. In the case of livestock, for example, it is a good strategy that beneficiaries who have been provided with goats, guinea fowl or chickens pass on the offspring to other beneficiaries. Through this strategy, many households receive livestock, which gives them a vision for the future. (ECA, 2006)

Boxes 22 to 24 present examples of successful income-generating projects for affected households.

Box 22: Promising income-generating activities – some examples from Zimbabwe

Overview of IGAs that are labour extensive, provide quick turnover and can be realized close to the homestead

Mushroom production: Mushrooms mature quickly, are rich in protein (dried) and, in most cases, there is a good market for them. Therefore, they are a good source of income.

- A minimum of capital is needed for training and the initial acquisition of spawn.
 - Fast-growing mushrooms can be cultivated several times a year on a variety of agricultural wastes, such as maize stover, hay, straw, leaves, etc.
 - The substrates the mushrooms are cultivated on can later be used as fertilizer.
- Mushroom cultivation is a better activity for individual households than groups.

Beekeeping: requires little labour and is an IGA that can be pursued throughout the year. Honey is also highly nutritious, but there is no quick turnover.

- Hives can be made from locally available materials.
 - It does not require a lot of land.
- Assistance is needed for training, and for acquiring protective tools and clothing.

Small-livestock production: is an IGA with low labour and capital demands, a good potential source of income and very suitable in particular for households headed by women.

- Poultry rearing is particularly suitable, because it requires little capital investment and is easy to manage (free-range feeding). Chicken and chicken products usually have a good market potential and a quick turnover.
 - Goat rearing is also very suitable, but the turnover takes two years.
- Assistance from outside is needed: possibly start-up capital, and training in production skills, disease management (e.g. vaccinations) and improved animal husbandry.

Seed gardens: growing seed in gardens during the dry season so that seed is available for the growing season.

- Seed gardens require little labour and capital. There is no need for sophisticated irrigation.
 - Possibly an important safety net for household food production and nutritional security;
- Assistance needed to increase variety in seed gardens; training in multiplication techniques.

Source: FAO, 2006

Remark: These examples are drawn from a participatory-planning workshop in Zimbabwe. In other contexts, depending on existing knowledge and for other reasons, some IGAs presented above may not be suitable for impoverished/affected households.

Box 23: The Urban Livelihoods Programme – a Tanzanian example

ACORD Mwanza Urban Livelihoods Programme, Tanzania

This programme was set up in 1999 after many participatory consultation sessions with the local authorities. It provides social development and micro-credit support for income-generation purposes through urban community structures. Many of its beneficiaries are affected by HIV and AIDS.

Micro-credit and business-development components:

- Micro-credit packages for groups and community-based organisations (CBOs): to help small-scale businesses trading grains, vegetables and fish; to establish small-scale urban agriculture.
- With regular repayments, groups can obtain a second and third loan.

Social components:

- Creating awareness of HIV and AIDS and gender inequality, social marketing of condoms;
- Facilitating access to VCT and to health services;
- Training local artisans in low-cost environmental-sanitation technology;
- Promoting girl-child education through focus-group discussions.

Effects:

- An increase in HIV and AIDS awareness;
- The empowerment of women: gender relations are improving, more women own resources.

Reasons for success:

- The programme is based on community structures that are recognized by the community.
- A participatory approach and networking with other organizations.

Source: White, 2002

Box 24: Income-generating activities for PLHIV – a Lesotho example

The Mulati Adventist Hospital HIV and AIDS Project in Lesotho

Mulati Hospital, located in Mapoteng, is the main health provider in the area. Historically, many workers in the mines in South Africa originate from this area. Due to the migrant situation, many families have broken up. Many men never came back or they returned sick. Many women were forced into survival sex to earn a living. The HIV epidemic has made the situation even worse.

The project was jointly developed with the Ministry of Agriculture in Lesotho to offer training in agriculture, income generation, business and leadership skills to PLHIV and orphans. To avoid stigmatization, the project targets all people with diseases and orphans.

Selected activities:

- Improving knowledge and skills in sustainable farming practices; vegetable production for private consumption and sale
- Developing leadership skills for community-based organizations
- Share-cropping between farm owners and the Ministry of Agriculture: The Ministry provides tractors and inputs to enable the farmers to cultivate the land. Produce is shared between the landowner and the Ministry.
- Candle making was identified as an appropriate income-generating activity for PLHIV. The candles are sold to South Africa on a monthly basis and the revenue is shared among the group members.
- Other activities include home-based care, orphan care and support, support for out-patients (e.g. burial assistance, school fees)
- Influencing policy makers: the Ministry, local leaders such as chiefs, religious leaders, teachers, etc.

Effect:

- Income-generating activities promote participants' ownership and economic independence.

Reasons for success:

- Through training in business skills and management, the target groups are more successful with their income-generating activities and financial dependence on the project is reduced.
- Ownership through the training of volunteers and partnering up with various organizations.

Source: White, 2002

Strengthening IGAs on household and support-group levels is very important if households are to overcome the stress arising from HIV and AIDS. Careful decisions on suitable income-generating activities lower their risk potential. Further, IGAs should be linked to internal savings groups or microfinance services if possible.

4.2.2 Microfinance approaches in the context of HIV and AIDS

HIV and AIDS worsen the vicious cycle of poverty for poor communities, households and individuals. Most of the people living with HIV belong to the productive age group. With the increase in poverty, the vulnerability of poor people to HIV-related diseases and the occurrence of opportunistic infections at an earlier stage increase. Their ability to cope with economic losses decreases. Households with one or more infected family members who suffer from recurring illnesses face a decline in household income because of the loss of the income of the sick adult, the decline in productivity of the caregiver, and the increase in household expenses, particularly due to medical care.

For the providers of microfinance services it is important to know about the feasibility, advantages, challenges and limits of microfinancing in response to HIV and AIDS.

Microfinance aims at assisting individuals, and thus households, to overcome poverty by increasing their incomes. It provides small loans and/or savings services to clients who do not have access to the formal financial sector as they lack financial and property guarantees (Parker et al., 2000; USAID, 2007).

The following objectives can be achieved through microfinance:

- Broadening the economic options of impoverished people
- Diversifying individual and household income in order to reduce vulnerability
- Improving the economic situation of vulnerable groups, e.g. women
- Promoting saving among poor people and households
- Improving the living standard year-round through the regular flow of income
- Mitigating the common recurrence of financial shocks for households (Parker et al., 2000).

There are two concepts of microfinance. Often there is a precondition that the clients must be economically active:

1. Loans are given to groups of independent individuals. The amount given to the group is further subdivided among the group members following certain rules set by the microfinance institution and/or by the group. The repayment risk is shared equally among the group members. This form of microfinance is based on mutual trust and engagement. The amount of the loan gradually increases if the undertaking is successful. Group credit tends to be more expensive than individual credit. Group-building measures and skills training (business skills, bookkeeping, etc.) to increase the groups' success also require funding. These costs could be included in the loans or the microfinance institutions (MFIs) could collaborate with development organizations which could bear (some of) the costs.

2. Loans are given to individuals. This kind of microfinancing usually replaces microfinancing on a group level that has been successful and where there is trust in the individual's engagement and repayment of the loan. It is less common for people who have no financial or property guarantee, as supervision has to be intensive and the microfinance institution must bear a high risk.

Consequences of microfinancing in the context of HIV and AIDS:

- Microfinance schemes on a group level may demand conditions that are not favourable in the specific situation of PLHIV. For example, they may not be able to participate in all group activities because of medical obligations and recurring sickness.
- Individual loans bear a high risk for both sides – for the microfinance institution and for people living with HIV. They may not be able to continue their economic activities and therefore may get into debt. Besides household or family members, there is no support group available to assist PLHIV for a period of time. MFIs have to raise their interest rates to cover the increased risk, which again puts this vulnerable group at a disadvantage.
- Depending on their degree of vulnerability, in times of crisis some families may not be able to continue productive activities, saving money and repaying loans. “The more vulnerable a household is, the less likely it will be able to use microfinance effectively” (CGAP, 2003).
- Microfinance has its conditions and MFIs are private businesses that need to “survive” on the market. With regard to their financial services, their ability to respond to the needs of PLHIV and affected households is limited. As organizations with a lively client flow, MFIs are in a position to refer many clients to service organizations that provide advice and support in the field of income-generating activities for vulnerable groups, or health and social security, for instance.

Generally, the situation of the individual/household affected by HIV and AIDS, is a challenge for microfinance institutions.

- A family can use microfinance support to build up its financial capital through economic activities.
- If the household member enabled to carry out economic activities by microfinancing becomes sick from time to time, the other household members may be able to continue the activities.
- In case of the death of a household member, microfinancing can help develop a sustainable financial coping strategy and rebuild the economic base of the household. (Parker et al., 2000; Achola, 2006; ICAD, 2001)

Due to the time needed for caring for a sick household member, it is likely that economic activities will be reduced and the payment of interest on loans is often a big burden for affected families.

Several MFIs active in sub-Saharan Africa have adjusted their products and strategies to address the effects of HIV and AIDS on the MFI itself, on its clients or on both. Among the products offered are credit and health insurance⁸, trust funds, burial societies, crop and livestock insurance, and conventional loans and savings (Waal et al., 2003; Parker et al., 2000; USAID, 2007).

Additionally, existing products have been adjusted to meet the needs of affected households:

- The reduction of compulsory savings requirements to make them fairly accessible to impoverished households
- Greater flexibility on loan sizes
- Shorter/flexible repayment schedules
- Flexible savings accounts (Parker et al., 2000; Barnes et al., 2003).

Linkage approach

In their relationship with their clients, MFIs can pass on basic messages on HIV and AIDS (provided that they have up-to-date information). They can refer their clients to specialised healthcare providers and insurance services.

Other services that could be offered in collaboration with different organizations include HIV and AIDS awareness programmes, information on inheritance rights for women and children, and legal advice for women on inheritance and children's rights (Parker et al., 2000; Barnes et al., 2003).

See Table 16 for an overview of various types of insurance, innovative service delivery methods and potential strategic partnerships.

⁸ Health insurance is a difficult matter in the HIV and AIDS context because the premium is often too costly for poor households. (Parker et al., 2000)

Table 16: Microfinance in the context of HIV and AIDS – an overview of various innovations

| Microfinance in the context of HIV and AIDS – a few approaches | |
|---|--|
| Insurance types | <p>Insurance types</p> <p>Health insurance (offered in collaboration with an insurance company if possible)</p> <ul style="list-style-type: none"> • It reduces the risks for MFIs operating in high-prevalence areas. • Premiums and co-payments must be affordable for poor people (To reduce the premiums, moderate co-payments for services are a good alternative). • Coverage limits have to be set carefully, particularly in regard to HIV and AIDS. • Wherever possible, the health insurance should include the spouse and children. • Where feasible, health insurance should cover HIV infection as well. |
| | <p>Agricultural insurance (offered in collaboration with an insurance company if possible)</p> <ul style="list-style-type: none"> • To protect clients from the risk of crop/livestock failure. |
| | <p>Credit/death/accident/life insurance (offered in collaboration with an insurance company if possible)</p> <ul style="list-style-type: none"> • To cover outstanding loans in the case of death (This protects the families of the deceased and other group members as well as the MFIs.) • Examples: FINCA, Uganda & Opportunity International |
| | |
| Strategies adjusted to the HIV and AIDS context | <p>Strategies adjusted to the HIV and AIDS context</p> <p>Solidarity groups</p> <ul style="list-style-type: none"> • Group members are responsible for repaying the debts of a member who is unable to pay. • In case of sickness, solidarity-group members look after the sick person's business. • Group members raise funds to cover the loan for a sick group member. |
| | <p>Team loans</p> <ul style="list-style-type: none"> • Loans are given to a team of people who run one business. • If one member is sick or dies, the other group members continue with the business. |
| | <p>Credit to younger clients</p> <ul style="list-style-type: none"> • To support OVC and families headed by older children, MFIs provide loans for younger people and provide them with training in business skills. • Parents are encouraged to train their children in business management and financial matters. |
| | <p>ROSCAs⁹/ASCAs:¹⁰ merry-go-round forms/harambees¹¹/welfare groups</p> <ul style="list-style-type: none"> • Clients are encouraged to build up internal savings to finance daily household expenditures, rent and recurrent costs etc. • These forms of microfinancing are very appropriate because clients do not drop out immediately in times of crisis. |
| | |

⁹ ROSCA – Rotating Savings and Credit Association. Members contribute a fixed amount of money to a pool and the money is rotated among group members in fixed time intervals.

¹⁰ ASCA – Accumulating Savings and Credit Association. Members regularly save the same fixed amount while some members borrow from the group. Interest is usually charged on loans. ASCAs require bookkeeping because the members do not all transact in the same way.

¹¹ Harambee – Fund-raising event calling upon the resources of the household's extended family network and closest friends.

| Microfinance in the context of HIV and AIDS – a few approaches | |
|--|--|
| Strategies adjusted to the HIV and AIDS context | Trust funds <ul style="list-style-type: none"> • Clients (in particular the chronically sick) are able to save money that will be beneficial for their children after their death. |
| | School fee funds <ul style="list-style-type: none"> • Members contribute regularly to this fund to be able to pay school fees for their children later. |
| | Emergency funds <ul style="list-style-type: none"> • All members contribute regularly to this fund. • Members can access ‘soft loans’ in times of crisis. |
| | Burial fund <ul style="list-style-type: none"> • A fund is built up internally by a group to help pay the expenses a group member has for burial arrangements for a deceased family member or for the group member her-/himself. |
| | Loan size/term <ul style="list-style-type: none"> • Fluctuating loan sizes and terms are adjusted to the changing financial situation of affected families throughout the year. • Clients are allowed to take out smaller loans (without penalties). • Longer loan terms are allowed. |
| | Voluntary savings <ul style="list-style-type: none"> • Frequent saving is allowed and promoted. • Interest is paid on savings. • Clients are allowed regular access to savings in case of emergency. • Members are linked up with banks where they can deposit their savings. |
| | Meetings <ul style="list-style-type: none"> • Clients are allowed to miss meetings (as long as they send their payments), but measures are installed for information flow. |
| | Interest <ul style="list-style-type: none"> • Interest to be paid back is spread over the loan period. |
| | Decentralisation <ul style="list-style-type: none"> • Microfinancing is set up close to the target groups (to avoid long distances). |
| | Collaboration |
| HIV and AIDS support organizations <ul style="list-style-type: none"> • HIV and AIDS awareness is created in target groups. • VCT is encouraged and support is provided. • Community action is encouraged to address HIV and AIDS. | |
| Home-based care <ul style="list-style-type: none"> • Support and care for PLHIV is facilitated among clients. | |
| Orphans and vulnerable children’s projects <ul style="list-style-type: none"> • OVC among the clients are cared for. | |
| Health care <ul style="list-style-type: none"> • Health care for PLHIV and other sick clients is facilitated. | |
| Business service development organizations <ul style="list-style-type: none"> • The businesses of the clients are improved. | |
| | Legal aid organizations <ul style="list-style-type: none"> • Widows and OVC are assisted with property issues. • Clients are given legal advice. |

Source: USAID, 2007; ICAD, 2001; Donahue et al., 2001

Boxes 25 to 27 show examples of microfinancing in the context of HIV and AIDS.

Box 25: The Positive Partnership Programme – a Thailand example

The UNAIDS-funded 'Positive Partnership Programme' (PPP), established in 2002 as a pilot scheme, aims to improve the economic situation of PLHIV and to fight stigma and discrimination. Further, low-cost or free ART is made available.

Strategies:

- PPP makes loans available to PLHIV who build up a partnership with a person who is HIV negative (possibly family members, orphans).
- Training in general micro-enterprise management and specific business skills are provided by the project staff.
- The PPP partners receive a loan together for one year and have to pay it back at an interest rate of 6%. The loan is to be used for income-generating activities.
- The partners consult with each other on how best to run their business. If one fails, the other is not held responsible, but might not qualify for a loan again.
- 375 partnerships were formed by the end of 2005.

Strengths: PPPs could easily be replicated in basically any society; PPP reduces stigma and discrimination and empowers PLHIV.

Weaknesses: PPP have a limited scope, as do most microfinance initiatives.

Source: UNAIDS, 2006a

Box 26: Microfinance in the context of HIV and AIDS – some African examples

Opportunity International (OI)

OI has been operating in several African countries since 1992, serving more than 30,000 clients in 2005. In the response to the effects of HIV and AIDS, the following products and services have been developed to address the clients' health problems:

Mandatory Loan Insurance: OI charges their clients a one-time fee of about USD 0.30 to cover outstanding loans in case of death. This fee mitigates the impact on the affected households because OI takes over responsibility for the loan after a client's death.

Mandatory death benefit insurance: A partner of OI, a local insurance company, offers clients death benefit insurance to cover burial and related costs for a client and up to five dependents. OI, in turn, earns a commission on each of the insurance policies purchased by its clients, which covers the administrative costs.

Emergency loans: OI is planning to offer loans to clients to deal with health-related and other emergencies.

Education trusts for minors: OI is developing an education trust that allows clients to make payments into a trust fund that could be accessed at a later date as an annuity for education purposes.

HIV prevention programme: In 1999, within a form of strategic partnership, OI started to disseminate information on HIV and AIDS among its clients.

Legal services: In strategic partnerships, OI provides legal advice on issues related to writing wills and inheritance laws for women and children to ensure that women and children will have full legal protection after a husband/father dies.

Sources: Parker et al., 2000; IFAD, 2001

Box 27: Microfinance in the context of HIV and AIDS – a Ugandan example

Financial services plus education: FINCA/Uganda

FINCA/Uganda started in 1992 with funding from the Displaced Children and Orphans Fund. It operates in regions with a high HIV prevalence in Uganda. Due to HIV and AIDS, FINCA has modified its financial services to respond adequately to the new situation. FINCA has developed several services in response to the health needs of its clients:

Health insurance: In October 1999, FINCA started a pilot programme in partnership with the Nsambya Hospital Healthcare scheme by introducing health insurance for its clients, including spouses and children, that covers the treatment of opportunistic infections.

In January 2000, it already covered 235 individuals under a pilot scheme. While joining the insurance scheme is optional, at least 60% of the FINCA clients in a given Village Bank are obliged to join to assure coverage. Clients have to contribute a small amount when they seek medical assistance. This avoids excessive use and the risk of the services breaking down.

Savings plan: In 1992 FINCA initiated a savings plan to encourage clients to save more than the amount required as collateral. These savings can be highly useful for FINCA clients who face/might face high medical costs and a reduction in household income (in the future). This service brings out the importance of flexible savings that are available to clients as needed.

Life insurance: In partnership with a large multi-national insurance company, the American International Group, FINCA offers life insurance to its clients. An important aspect of the policy is that loans outstanding at the time of death are covered. This protects family members or co-borrowers from having to reimburse the deceased person's loan and also protects FINCA. The insurance covers accidental death as well if the spouse and up to four dependents are registered with FINCA at the beginning of the loan cycle. Death caused by illness is generally not covered. In January 2000, more than 123,000 individuals were covered by some parts of this life insurance.

Service delivery: Existing services were also adjusted, providing more flexibility in loan amounts and time for repayment, flexibility in group meetings, and easier access to savings, for instance.

HIV and AIDS education seminars: FINCA provides HIV and AIDS education to clients and their family members through a strategic partnership with the Church of Uganda doctors. The seminars are linked to Village Bank meetings; they are held at the request of clients, who pay for the costs.

Sources: Parker et al., 2000; Achola, 2003

Constraints of microfinance as a response to HIV and AIDS

- The main constraint of microfinance in general, and also in the HIV and AIDS context, is its limited outreach. Microfinance only covers a very small portion of the households in need of loans to carry out economic activities.
- In many cases, the clients of the microfinance institutions are ‘the near poor’¹² or ‘the upper poor’¹³. The ‘poor’¹⁴ and, in particular, ‘the destitute’¹⁵ are hardly serviced by MFIs. (Hirschland, 2005)
- Households and individuals affected by HIV and AIDS often belong to the most vulnerable, the ‘poor’¹⁴ or ‘the destitute’¹⁵ who may not be able to make a living through their economic activities. This bears the risk that they will not be reached by microfinance at all or that they may not be able to continue to participate in microfinance schemes because they are not able to participate in group activities, for instance.
- In very critical stages, affected households are most likely unable to participate in microfinance, but rather depend on social protection schemes (grants etc.) offered by governments, NGOs or FBOs. (Parker et al., 2000; Barnes et al., 2003)
- Bigger MFIs might not be willing to offer programmes tailor-made to the specific needs of clients affected by HIV and AIDS. However, their (financial) potential to offer tailor-made programmes to affected individuals, households and groups through portfolio diversification and client diversification is higher than that of smaller MFIs.
- In some countries, microfinance institutions run by NGOs are not allowed to accept voluntary deposits by national law. This prohibits them from offering services such as funeral schemes and other voluntary savings services.
- Lack of confidence in benefits promised by insurance schemes may result in a reluctance to become insured.
- Mutual trust and engagement is an important precondition for participation in a group-based microfinance scheme. Fear of stigma and discrimination are also reasons why PLHIV may not participate in microfinance schemes.

¹² The “near poor” are economically active but live just above poverty line: “Current income is reliable and large enough to consistently cover minimum food, health care, and shelter. But members of this group are vulnerable – they may just be one crisis away from poverty. A large portion of MFI clients comes from this group.” (Hirschland, 2005)

¹³ The “upper poor” are economically active but live just below poverty line: They “cannot consistently provide for minimum food, health care, and shelter from current income. Income is small but large and reliable enough to make use of services that require regular payments and a non-negligible opening balance. A large portion of MFI clients also comes from this group.” (Hirschland, 2005)

¹⁴ The “poor” are economically active but “cannot consistently provide for minimum food, health care, and shelter from current income. Income is small and unreliable. Cannot make use of many existing microfinance services but could make use of financial services if they were close by and did not require large or regular payments. MFIs are not yet serving this group in large numbers.” (Hirschland, 2005)

¹⁵ The “destitute” “cannot provide minimum food, health care, and shelter from current income. Appropriately served by direct aid; cannot make use of financial services without other support. Almost no MFI client comes from this group.” (Hirschland, 2005)

Appropriate responses in the field of microfinance:

Nevertheless, except for a few disadvantages, microfinance schemes that are adapted to the specific needs and circumstances of their clients can make an important contribution to mitigating the effects of HIV and AIDS and help reduce stigma and discrimination of PLHIV.

- For example, through access to credit with suitable conditions and the support of other group members, affected individuals and households may be able to start or continue economic activities and stop the vicious cycle of poverty. Further, working in groups helps to reduce stigma and discrimination.
- Voluntary flexible models of microfinance and savings & credits where clients can decide the amount and the rhythm of savings and loans are of advantage, especially for the poor, so they can have access to their savings in times of urgent and sudden needs. (Rutherford, 1999)
- Regular meetings result in “transactional costs” which are often too high for poor people, as the time spent at meetings means a loss of time for income generation. Therefore, MFIs should allow clients to miss group meetings (as long as they send their payments). Hereby it is important to install measures for adequate information flow.
- Emphasis has to be put on constitutions favourable to group members with recurring sicknesses, including PLHIV. A constitution could forbid the exclusion of members because of disease, and require group members to support the economic activities of the sick person for certain periods and allow family members to replace the sick person etc.
- Groups could have a “solidarity box” to help group members in need.
- MFIs have a responsibility to help their clients avoid falling into debt. Services other than microfinance might be the appropriate option if the requirements for accessing microfinance cannot be met. The MFIs, however, could provide information about access to financial resources such as grants (for orphans and vulnerable children, for instance).
- MFIs could provide basic information on HIV and AIDS (if up-to-date!) to their clients. They could use the ‘linkage approach’ and refer their clients to specialised providers of health care and insurance services. In collaboration with different organizations, they could offer support on such topics as HIV and AIDS awareness, and the inheritance rights of women and children. Legal advice to women on inheritance and children’s rights could also be offered.

4.2.3 Local support groups

Various traditional local community-based self-help schemes exist to support women in particular, in accessing capital for agricultural production and other productive activities, as well as to provide support in times of crisis (Kaseke, 1997 in Mutangadura, 2005).

Such initiatives include

- **Productive activities:** horticultural (gardening) production groups, fish-pond ownership groups, poultry production groups;
- **Addressing household problems:** assistance with regard to water supply, sanitation, nutrition, and hygiene;
- **Labour scarcity:** labour-sharing clubs, draught-power clubs, church groups, traditional “mutual assistance” in fieldwork on a rotational basis;
- **Health-related:** mutual aid societies, assistance in times of sickness;
- **Financial issues:** savings clubs, including ‘merry-go-round’ rotating systems and cooperatives;
- **Food security:** community seed banks, grain banks, community fields and women’s market groups (Mutangadura, 2001; ECA, 2006; Bishop-Sambrook, 2003).

In the context of HIV and AIDS, these traditional self-help schemes can play an important role in overcoming a shortage of labour (IFAD, 2001). They can also be a bridge to training opportunities and (free) inputs (Bishop-Sambrook, 2003). In general, it is important to strengthen useful traditional self-help schemes.

But these are also severely affected by HIV and AIDS, because many households are no longer able to participate in wider community projects. A case study conducted in two districts of Kenya that are strongly affected by HIV and AIDS revealed that while community self-help groups played an important role for some community members, many were unable to participate, especially the weak, the sick, the young and those who did not possess farm tools or the cash contribution required. Moreover, some women were unable to take part due to severe time constraints (Bishop-Sambrook, 2003).

Therefore, the potential of community self-help groups should not be overestimated and support from NGOs/churches etc. is often needed to overcome common problems of leadership and technical skills, or group and financial management, for example (Mutangadura et al., 1999).

Examples of community self-help schemes are presented in Boxes 28 to 30.

Box 28 presents an example of community labour-sharing in agricultural activities. Mutual assistance and labour-sharing are of particular importance in the context of HIV and AIDS because labour scarcity is a key problem in affected households and often leads to children dropping out of school, a reduction in food production, food insecurity, economic crises and the related impoverishment.

Box 28: Examples of common community self-help schemes

Labour sharing within the community is a widespread coping mechanism to assist vulnerable households. Labour-sharing groups assist in land preparation, weeding, and harvesting, thus allowing more households to work on their fields as required, which can substantially increase the harvest. Labour-sharing clubs have been reported to be a powerful way to overcome labour shortages for affected households in Malawi and Zambia (Barnett et al., 2003 in ECA, 2006)

Community seed banks & farmer seed fairs protect local varieties of food, provide access to seed and promote the exchange of planting material. This can be an important mechanism for communities affected by HIV and AIDS to preserve their genetic resources and to improve food security.

Source: ECA, 2006

Boxes 29 and 30 present examples of internal savings and lending groups in the context of HIV and AIDS. Participation in savings groups can assist PLHIV to overcome financial constraints and to fight stigma and discrimination. PLHIV may be excluded from these groups because of their potentially limited capacity to pay back loans. Therefore, internal lending and savings groups should clearly state in their constitution that nobody has to leave the group because of sickness. In case group members have problems paying back loans because of sickness or other health-related reasons, these group members get special conditions as agreed on. For instance, they have more time to pay back the loan, they can pay back in smaller amounts at a time, the interest rate may be reduced and group members or family members of the sick person may help to pay back the loan (and even replace the sick person for a certain period of time).

Box 29: Savings and internal lending groups – a Tanzanian example

The Kibara Mission Hospital HIV Project, which is financially assisted by Catholic Relief Services in Tanzania, is located in the northwest of Tanzania along the shores of Lake Victoria. The HIV prevalence in the area was estimated to be around 7% in 2006. Many households have great difficulty facing the multiple effects of the epidemic.

The main objective of the project is to enhance the quality of life of the target population by reducing the spread of HIV and mitigating its effects. The second phase of the project (2005-2007) was built on the experience of the first phase and microenterprise development was intentional: A group-based, savings-led financial service model (SILC) was introduced to improve the incomes and nutritional status of the affected households.

Strategies:

- Clients making use of VCT are informed about the savings groups. Along with psychological support, HBC and ART, clients are encouraged to join the groups to increase their income.
- Stepping Stone methodology is used to create awareness on HIV among community members.
- SILC groups pool their money to borrow among themselves. As they have their own rules, the financial services fully match the needs of the members. Cycles of savings and lending are time-bound and the interest charged on loans benefits all group members, contributing to social funds to support orphans, the sick and other needy people in the community.
- SILC are like a family; they provide assistance to each other in case of sickness and other crises. There is trust and strong cohesion among the members.

Effects:

- The integration of SILC groups in the HIV program has clearly strengthened the economic potential of target households and created new opportunities, in particular for women.
- It offers the possibility of receiving financial services directly from the communities.

Major challenge:

- The project has a very limited scale. While VCT services have been expanded to thousands of individuals, less than 800 individuals have been reached for SILC.

Source: The SEEP Network, 2008

Box 30: Income-generating activities in the context of HIV and AIDS – a Cameroon example

Income-generating activities of PLHIV

The Hope Is Rising Association is a group of PLHIV in the Anglophone South-West Province of Cameroon. The group has about 20 members.

Main objective:

The objective of the group was to start income-generating activities.

Process:

A limited group of people (about 6) started to contribute (Central African) CFA francs 10,000 per month to a fund which was handed over to a single member to conduct an income-generating activity that had been previously reviewed and approved by the group.

Effects:

The six pioneer members were able to carry out interesting viable projects (such as opening a video club, repairing bush taxis, etc). Later other people joined and contributed to the fund. By now, all the group members are productive members of society.

Source: USAID, 2006

Mobilising community initiatives is a key strategy in the response to HIV and AIDS. Development agencies can build on local structures, avoiding duplication of local efforts. Support from outside by NGOs, FBOs and governmental organizations encourages, supplements and complements community responses. Existing local support groups and community-based organizations should be assisted in the areas of group management, financial management, fund-raising skills and other skills needed to carry out their mission successfully. (Mutangadura et al., 1999)

4.2.4 Strengthening local customs

On one hand, due to HIV and AIDS, many communities do not have the capacity (human and material) to follow all the required rites and traditions and therefore adjustments are needed, e.g. to reduce the costs of funerals and weddings as well as mourning periods in order to avoid further impoverishment (Mutangadura et al., 1999).

On the other hand, some traditions can help to address the root causes of HIV infection and mitigate the effects. These traditions include the cultivation of communal land for the benefit of marginalised people, labour-sharing clubs, and also traditions promoting sexual abstinence among young men and women until a certain age. It is important to analyse the existing (and repressed) practices from the viewpoint of HIV and AIDS and identify 'good' and 'harmful' practices.

Box 31 presents a formerly useful tradition that has changed in the context of HIV.

Box 31: A decrease in informal safety nets in the context of HIV and AIDS – a Malawi example

Poverty, combined with the effects of HIV and AIDS in Malawi, has severely lowered the potential of the extended-family safety net because of the high number of households affected and impoverished by HIV and AIDS.

- In affected households, family members increasingly opt for '*ganyu*', or informal wage labour, as employment options. Traditionally, *ganyu* was a kind of informal social protection, whereby better-off households provided agricultural employment opportunities for the poorer people.
- In the context of HIV and AIDS, *ganyu* has become the main coping strategy for affected households. The high labour supply has lowered wages and increased competition for jobs.
- This high competition reduces the negotiating power of already vulnerable casual labourers, particularly women. Women increasingly have to offer transactional sex to receive *ganyu* contracts.

Source: Greenblott, 2007

Examples of revitalised useful local traditions in Swaziland are presented below in Boxes 32 and 33.

Box 32: Revitalizing useful local traditions – a Swaziland example

Revitalizing useful local traditions: traditional regiments in Swaziland

‘Lutsango lwakaNgwane’ – a women’s regiment: Lutsango members traditionally preserve cultural values, e.g. they are responsible for teaching children traditional life skills such as cooking (for girls). They transfer cultural knowledge from one generation to the next. The tradition of ‘Lutsango’ has been revived and modified; members now teach OVC relevant life skills, including nutrition and gardening, and about HIV and its prevention.

‘Emabufwo’ – a men’s regiment: In the Swazi culture, the chief calls the men of the regiment together when an animal has been slaughtered to share the head. This meeting is now used as a discussion forum for men to discuss issues related to HIV and AIDS. Men need to be aware of risks and the need for behaviour change, and be encouraged to share experiences openly.

‘Timbali’ – a girls’ regiment/‘Tingatja’ – a boys’ regiment: Both regiments traditionally promote abstinence among their members.

Churches: Many churches have built up partnerships to mobilize funds to care for orphans; church occasions are used to sensitize the congregation to HIV and AIDS.

Challenges:

The revival of former ‘positive’ traditions needs further support from trained professionals and good coordination.

Benefits:

Traditional customs have been effectively used and transformed to respond to HIV and AIDS.

Source: UNAIDS, 2006

Box 33: Revitalizing existing useful traditions – a Swaziland example

Revitalizing existing traditions – ‘Indlunkhulu’ in Swaziland

According to a former tradition in Swaziland, out of practice for a long time now, the chief of an area takes care of vulnerable community members. In 2002, the National Emergency Response Council on HIV/AIDS (NERCHA) and the Ministry of Agriculture started to mobilize local chiefs to revitalize the concept of ‘Indlunkhulu’, providing land to the community for communal cultivation. The Ministry further provided community storage facilities, where food for vulnerable community members could be stored.

Challenges:

- The communal fields depend on inputs for cultivation. This easily causes delays in production and therefore results in lower yields for vulnerable households.
- The success or failure of the project largely depends on the support of the local chief.

Benefits:

- The practice of joint cultivation has strengthened the feeling of unity within the communities.
- The community itself identifies who should benefit from the food resources.

Source: UNAIDS, 2006

Revitalising existing traditions that can contribute to HIV prevention and the mitigation of HIV and AIDS is an important strategy. The involvement of local leaders is crucial for its success. The examples above have shown positive consequences. But a critical look is crucial. Some traditions that were useful in former times may now potentially contribute to the spread of HIV and need to be modified, e.g. wife inheritance, formerly a social and economic protection mechanism for widows and their children.

4.2.5 Orphans and vulnerable children

One of the biggest challenges of HIV and AIDS is the large number of children who have become single or double orphans (having lost one or both parents). It is important to develop adequate strategies to care for those orphans and vulnerable children in general. The best option for orphans and vulnerable children (OVC) is to grow up in family-like settings in the community, rather than in orphanages (UNAIDS, 2006). It would be preferable for the government and NGOs to increase and strengthen existing community structures to provide family support services. These community structures have to be closely monitored to assure that all families get the assistance they require and to make sure that the support funds are not misused. (UNICEF, 2007)

Several kinds of measures are needed to assure the success of community-based responses to orphan care. The following subchapters provide an overview of community-based care options and legal rights for orphans. The examples are mainly from Africa.

4.2.5.1 Care for orphans and vulnerable children

The high number of orphans due to HIV and AIDS requires the creation of innovative, community- and family-based care systems. The main objective is to allow children to live in family and community settings instead of providing institutional care. Possible care options are informal arrangements for the OVC to stay with their own, possibly extended, family and within their community. Another option is formal arrangement for the children to live in safe and caring foster families.

Possible care systems:

Informal care systems

- Develop monitoring systems to assure that children placed in informal care, such as the extended family or a foster family, and also households headed by children receive enough support and are not subject to exploitation, abuse or severe poverty and malnutrition.
- Teachers, health-care workers, NGOs, religious leaders, youth organizations, social workers, home-based caregivers and other community volunteers have to be trained to monitor informal care systems.
- Governments have to develop appropriate social protection schemes for OVC, such as child support grants, free primary and even secondary schools, school feeding and gardening programmes, etc.

Formal care systems

- Institutional care is only a short-term option, in particular for young children. Alternative arrangements have to be preferred.
 - It can be a good strategy to identify guardians (extended family, foster family), while the parents are still alive to avoid disruption, poverty and exploitation.
 - Foster care can be an option if the children's needs and interests are not met by informal arrangements with family members or informal arrangements are not possible (e.g. through the loss of family ties).
 - Institutional care facilities have to be monitored well to ensure the best quality.
- For any form of arrangements, the interests of the child have to be the priority. (UNICEF, 2007)

Promising examples of care for OVC from Uganda, Swaziland and Malawi are presented below.

Box 34: Support for foster families – a Ugandan example

The Uganda Women's Effort to Save Orphans (UWESO)

The project was designed in 1994 with international support (IFAD, Belgian Survival Fund). UWESO works with about 10,000 volunteers, mainly middle-aged women who are widowed and take care of seven orphans on average. To avoid stigma and discrimination, support is provided to households caring for 'orphans', with no mention of HIV and AIDS.

Main activity:

- The project offers training to both foster families and adolescent orphans to successfully handle small-scale income-generating projects (IGA).

Strategies:

- Start-off capital for an IGA is provided through a loan scheme.
- During training, trainees are encouraged to start saving money, which is deposited in group savings accounts. The members of the groups formed serve as mutual guarantors for the repayment of individual loans.

The training concept is very comprehensive. Besides training on running a business and loan schemes, it has additional modules, such as:

- Agricultural modernization, improvement of farm output, nutrition, beekeeping and zero-grazing;
- Women's rights and legal aid (the legal status of women and children with regard to property and inheritance);
- Family planning and the management of adolescent orphans;
- The treatment of malaria among pregnant women;
- Child immunization.

The main activities of the target groups are small businesses, such as buying and selling produce, fish mongering, baking and selling bread, retailing essential commodities (charcoal, salt, sugar, soap, match boxes, paraffin), selling spare parts for bicycles, managing bicycle taxis or operating small restaurants.

Success:

UWESO has reached about 10,000 people and shown success in the following fields:

- Improved nutrition, better access to health care, clothing and children's education;
- Improved living and housing conditions;
- A sounder economic base for clients, including a culture of savings;
- Empowerment through knowledge, self-confidence and leadership skills;
- Income diversification among the clients;
- A reduction in dependency on handouts.

Source: IFAD, 2001

Box 35: Alternative care – a Swaziland example

One of the biggest challenges in Swaziland is caring for the huge number of orphans, mainly due to HIV and AIDS.

Swaziland is responding to the challenge with the establishment of Neighbourhood Care Points (NCPs). The first NCPs were initiated by a group of women to support orphans in their village with warm meals. Other communities followed the example and the idea was taken up by the ministry. In 2006, there were 1,500 volunteers (selected from the community) looking after 33,000 children in NCPs.

Nowadays, NCPs offer the following assistance to children:

- One warm meal per day.
- Many NCPs have vegetable gardens to provide food and to teach children how to produce their own food.
- Psychological support.
- Informal education and life skills: Some even teach adult literacy classes (e.g. for guardians of OVC).
- Some NCPs are now supported by international organizations (e.g. UNICEF). Volunteers receive 'food for work' rations and children 'school-in-a-box' kits.

Challenges:

- Some OVC are stigmatized because they attend NCPs.
- Many more NCPs are needed to absorb the growing number of orphans.

Benefits:

- NCPs have empowered communities; OVC are visible and cared for by the community.
- NCPs were initiated by the community and they have influenced national policies.

Source: UNAIDS, 2006

Box 36: Support for households headed by children and grandparents – a Malawi example

The SOS Social Centre Lilongwe in Malawi established the ‘community-based programme component’ in 2002.

Main objectives:

- Support of households headed by children and grandparents in the fields of education, health, nutrition and skills training. The needs were identified by the community.
- Building of capacity of the community by training village committees which assist the vulnerable households, as a long-term objective.
- **‘We help communities to support vulnerable children and their families.’**

Strategies:

- Training was provided to village committees on the concepts of participation in development, self-reliance, community mobilization, communication, leadership, child rights, and the basic facts on HIV and AIDS.
- The village committees and sub-committees meet twice per month to plan and evaluate activities jointly, mainly in the area of home-based care, go-back-to-school campaigns, water and sanitation improvements, and gardening.

Effect: The example of food security

- At the community level, each village has a communal garden where maize is cultivated.
- The community provides labour, while the Ministry provides technical advice, SOS seed and fertilizer loans.
- At the household level, each household with orphans who are in need has access to land and has received seed and fertilizer loans.
- The loans are paid back 100% in kind; the food is stored communally to prevent food shortages and to support vulnerable households unable to benefit from the programme.

Currently, the project is working in 7 villages, reaching 595 households with 1,200 orphans.

Source: SOS-Orphans Best Practice

www.soschildrensvillages.org.uk/aids-africa/best-practice/aids-africa-orphans-best-practice-9.htm

Remarks: The information source does not indicate whether the agricultural technology and methods (e.g. labour-saving methods) have been adapted to the situation of households headed by children and grandparents.

4.2.5.2 Legal protection for orphans and women

In many cases the inheritance rights of orphans are not ensured. Orphans are the victims of property and land grabbing by relatives or other guardians. The danger of disinheritance is higher when:

- Legislation is not clear (Customary law is contradictory; limited public awareness exists).
- Children are not officially registered (do not possess a birth certificate).
- The death of the parents is not registered (no official death certificate).
- Official registration of birth and death is also important if orphans are to have access to social protection schemes, e.g. child support grants.

Strengthening and protecting the property and land rights of women is crucial in the response to HIV and AIDS and beneficial for their children, especially in societies where patrilineal kinship is practised. In this case, women only have access to land through their father, husband or adult sons. So the death of their husband can lead to the grabbing of land and property by their husband's family (Cooper, 2008; ECA, 2006).

A Human Rights Watch study (2006) in Kenya demonstrates that unclear property rights make women even more vulnerable to HIV infection and to the effects of HIV and AIDS: women may not be able to separate from their husband/partner, even if they are put at risk of contracting HIV. After their husband's death, they might be confronted with practices of sexual cleansing and/or wife inheritance, which they can hardly refuse because this is the only way for them to have access to their 'husband's property'. Women have contributed to the family property, but may fail to own it after the husband's death and to safeguard it for their children because of unequal property rights.

Therefore, creating awareness and establishing protection mechanisms for property and land inheritance rights, land rights, rights related to marriage and divorce, children's rights, and also enforcing civil registration are important steps in reducing the vulnerability of children and women affected by HIV and AIDS. (UNICEF, 2007; UNAIDS, 2004)

Some areas of intervention in inheritance laws to allow women and children to inherit land and property are described below:

Measures on the national level

- Establish national committees which include legal organizations, NGOs, FBOs, traditional leaders and government organizations to review existing customary and common laws pertaining to women's and children's rights to land ownership and private property, to ensure that the inheritance rights of women and children are clearly formulated.
- Based on the recommendations, have a national commission revise existing laws to protect the property and land rights of women and children.
- The government must also assure the enforcement and communication of the revised laws on inheritance rights of orphans.
- If customary law results in unjust inheritance practices for certain groups of the population, the government must communicate the advantages of official law, provide advice on it and enforce it.

The following aspects should be considered when revising inheritance laws:

Civil registration

- The promotion of public awareness on wills and will writing (if a will is accepted by national law);
- The simplification of the official registration and execution of wills, e.g. decentralising civil registration to facilitate access;
- Fees for birth and death registration may keep poor people from registering; if fees are to be paid, poor people should be exempted;
- The linking of birth registration to other common practices and services, e.g. to the use of health cards;
- A change of policies that currently deny unregistered children access to social protection schemes and to land and property after the death of one or both parents.

Child-friendly police and justice systems

- Legislation to protect children from child labour, sexual abuse, and trafficking, for example, should be reviewed with respect to international standards.
- The government should establish child-protection teams/units that use confidential, child-friendly and gender-sensitive procedures for the victims of abuse and exploitation.
- Social workers, teachers, legal groups and other community members may be capacitated to provide advice and to investigate and follow up cases of abuse.
- Community-based child-protection committees could be put in place to monitor sensitive investigation procedures and the prosecution of perpetrators.

Inheritance laws – possible action on a local level

Community campaigns are needed to raise awareness among community members about legal procedures, whereby both women and men have to be addressed:

- Creating awareness about the issue of inheritance rights among the population, involving local traditional leaders, church leaders, social workers, teachers, men and women, etc.;
- Sensitising local leaders to the necessity of helping orphans and women to inherit land and property;
- Improving the ability of social workers, teachers, legal groups and other community members to provide advice and to investigate and follow up cases of inheritance abuse involving women and children;
- Developing guidelines on property and inheritance laws, writing wills and succession plans, will execution and the provision of adequate training. These guidelines should also be part of the secondary school curriculum and marriage preparation classes;
- Training parents on how to store documents safely (e.g. birth and marriage certificates, land titles, land occupancy agreements, banking statements, etc.) which are essential for orphans trying to claim their rights (Rose, 2006).

(UNICEF, 2007; ECA, 2006; UNAIDS, 2004)

Several examples to successfully counteract property grabbing are presented in Boxes 37 to 39.

Box 37: Action against property grabbing – a Zambian example

Recovering grabbed property – the Victim Support Unit (VSU) in Zambia

In 1994, the Zambian Police Service formed the special Victim Support Unit (VSU) in order to address violence against women, children and the elderly. This includes sexual violence, domestic violence and other forms of abuse and crime, including property and land grabbing. Due to HIV and AIDS, the cases of property grabbing and sexual cleansing have become more extensive; especially orphans who have lost both parents are very vulnerable to disinheritance and abuse.

Strategies of VSU:

- Creating awareness of property grabbing and abuse through radio and television programmes, pamphlets, etc.;
- Targeting local traditional and church leaders, communities, orphans and widows, etc.;
- Networking with various organisations.

Success: the number of convictions for property grabbing has increased in recent years: 909 cases were reported in 2001, with only 57 convictions; 734 cases were reported in 2003, with 228 convictions.

The number of convictions is still low, because many orphans and widows are afraid to testify in their cases for fear of destroying family ties and creating problems with in-laws. Further problems are cultural barriers, a great lack of information, and a lack of counselling services. More awareness creation in communities is needed, including local chiefs, church leaders, schools, etc. Source: Izumi, 2006

Box 38: The Memory Book project – a Ugandan example

The Memory Book Project in Uganda

The book project has its origin in Uganda; its founder is Beatrice Were.

Objectives:

- Keeping a family and its assets together in order to provide a basis for the livelihood of the family members in the future.
- Parents and their biological children, or foster parents with their foster children are targeted.
- HIV-disclosure between parents and children is encouraged and family members are prepared for a possible separation or death in the family in the future.
- Children are provided with memories of their childhood and their parents.

Key functions of the Memory Book:

- Personal information (photographs, etc.) as a remembrance for the surviving children;
- Planning for the future: a declaration of all property belonging to the children, a listing of all close relatives, a record of the family's original home, a written will.

Holistic training for the Memory Book:

- Training for widows about property grabbing, the consequences of remarriage;
- Instruction about the sexual, physical and psychological abuse of children.

Success:

- Many families have benefited from the Memory Book concept.
- The concept of the Memory Book has been introduced to several other countries, such as Kenya, Zimbabwe, Tanzania and South Africa.

Source: Izumi, 2005

Box 39: Legal instruction on property rights – a Zambian example

Legal instruction for widows and orphans

The Justice for Widows and Orphans Project in Zambia, started in 2001 and funded by the Finnish government, is operating in two pilot areas. It is a network of nine organizations (NGOs and government) that focus on the provision of legal instruction on property and inheritance rights for women and orphans using the synergies of the different organizations. The organizations collaborate closely with local NGOs and CBOs and they have a good relationship with the police.

Activities:

- The formation of widow support groups and training in succession laws;
- Advocacy for policies and laws promoting equality for women and orphans;
- Wider awareness campaigns through television and radio, on a community and national level;
- Documentation.

Output:

- Awareness of legal rights for women and children has been considerably raised by TV and radio.

Challenges:

- Effective monitoring and impact assessment of the programme.

Sources: UNAIDS, 2004; Varga, 2006

Mobilising and strengthening community responses that offer care for OVC, and securing land and property rights for OVC and women are key measures in the response to HIV and AIDS. They need more attention, in particular in the agricultural sector and in collaboration with other sectors.

5 Promising Social Protection Schemes

5.1 Introduction

People living with HIV and affected households may not be in a position to develop adequate coping strategies to overcome the psychological and economic effects of the disease. Impoverishment, for instance, caused by increased expenses or the loss of the household heads and main breadwinners, has brought about the need for 'social protection schemes' (Slater, 2004).

“Social protection refers to the public action taken in response to levels of vulnerability, risk and deprivation which are deemed socially unacceptable within a given polity or society.” (Norton et al., 2002)

Social protection policies and programmes are:

- Protective (providing relief)
- Preventive (averting deprivation)
- Promotional (enhancing real incomes and skills) or
- Transformative (addressing social inequality) (Adato, 2007)

Social protection schemes can be found at the grassroots level and at various government and international levels. Unfortunately, the capacity of governments and civil society to offer any kind of social protection measures is also affected by HIV and AIDS. In countries with high prevalence:

- HIV and AIDS reduce economic growth, and thereby government revenue.
- The number of people in need increases.
- HIV and AIDS have effects on government performance. Many employees themselves are affected or infected and their capacity to deliver services to the population is reduced (FAO Factsheet).

5.2 An overview of social protection schemes

There are five main areas of social protection:

Labour-market measures to provide work opportunities

- Active labour-market programmes: direct employment generation (promoting small and medium enterprises, public works), labour exchanges or employment services, and skills-development programmes (training and retraining of labour) etc.
- Passive labour-market policies: unemployment insurance, income support, and a legislative framework (e.g. safe working conditions, social security contributions)

Social insurance programmes to buffer risks

- By providing income support in case of illness, disability, work injury, maternity, unemployment, old age, and death.

Social assistance and welfare programmes to protect the most vulnerable groups with no other means of support

- Welfare and social services: for highly vulnerable groups, such as orphans and people with disabilities
- Cash or in-kind transfers: such as food vouchers and family allowances
- Temporary subsidies: such as housing subsidies, lower prices for staple foods in times of crisis

Micro and area-based schemes to address vulnerability at the community level via social protection to small-scale agriculture and the informal urban sector, for instance

- Micro-insurance: voluntary and contributory schemes for the community¹⁶
- Agricultural insurance: could be available for farming communities to pool natural risks (storms, plant pests and diseases, etc.)
- Community-based social funds: mechanisms to channel public resources for specific urgent needs at the local level
- Disaster preparedness and management: assistance for communities in risk coping and mitigation

¹⁶ Micro-insurance helps pool both the risks and resources of whole groups to provide all members with protection against the financial consequences of mutually determined risks. It is a voluntary group-self-help scheme. The main reason for micro-insurance is that populations have not been covered under existing social insurance schemes because the level of exclusion is high among (rural) communities in view of their informal situations.

Child protection: to provide social protection for children¹⁷ in order to ensure their healthy and productive development

- Basic nutrition, preventive health measures and educational programmes in early childhood
- School feeding programmes
- Scholarships, school-fee waivers
- Waiving of fees for health services
- Youth programmes (e.g. to avoid marginalisation in teenagers, criminality, sexually transmitted diseases such as HIV-infection, early pregnancies, and drug use)
- Initiatives to help street children
- Child rights advocacy/awareness programmes against child abuse, child labour etc.
- Family allowances, either means-tested cash transfers or coupons/stamps for basic goods and services (i.e., food, clothing) to assist families with young children to meet part of their basic needs.

Source: Asian Development Bank (ADB), 2008

Measures have to be sensitive when targeting households affected by HIV and AIDS and children orphaned due to AIDS because of the stigma and discrimination attached to them. It is more neutral to name the target group ‘impoverished households’; ‘households that take care of orphans’, ‘households headed by only one parent’, etc. (Slater, 2004).

Table 17 provides an overview of social protection schemes in the context of HIV and AIDS (psychological dimensions are not considered).

¹⁷ As defined in the United Nations Convention on the Rights of the Child: society, through good governance, must provide measures to ensure that the child is protected from all forms of abuse and exploitation. These include child labour, child prostitution, or the adversities faced by the girl child, street children, children with disabilities, and children under armed conflict.

(<http://www.unicef.org/crc>)

Table 17: An overview of social protection schemes and their limits

| Appropriateness of various social protection schemes for affected households | |
|--|---|
| Cash transfers and conditional transfers | Cash transfers and conditional transfers |
| | Social pensions <ul style="list-style-type: none"> • Income invested in children's schooling and family health |
| | Cash transfers (conditional and unconditional)¹⁸ <ul style="list-style-type: none"> • Enable households to pay for basic needs. • If the cash amount is too small, there might be no effect (because of the critical choices to be made between food and other needs). • Households headed by children might not be able to make appropriate decisions. |
| | Child-support grants <ul style="list-style-type: none"> • Often it is not enough money to provide relief from poverty. |
| | Disability grants <ul style="list-style-type: none"> • Affected individuals are only eligible for a limited time (i.e. in case of permanent sickness). |
| | Cash for agricultural investments <ul style="list-style-type: none"> • Transfers to farmers can increase production and monetary returns. |
| | Attendance incentives¹⁹ <ul style="list-style-type: none"> • Educational and nutritional impact on individuals and the community. • Improve the resource base of a community. |
| Subsidised/free food distribution | Subsidised/free food distribution |
| | Food aid <ul style="list-style-type: none"> • Has to be adjusted to the stage of HIV infection (e.g. food aid given during the first months under ART, during times of disease). • Nutrition and health of PLHIV are closely interlinked and very important. • Food-aid packages can be linked to skills training. |
| | School feeding <ul style="list-style-type: none"> • Potentially increases school attendance rates and decreases dropout rates. Can improve gender ratios. • But if a household faces labour constraints, children, especially girls, might not be sent to school only because the school feeds them. • The money saved by the household for food because of school feeding can be used for other expenses. • In regard to HIV and AIDS, it is useful to combine school feeding with food rations for the family. • School feeding programmes should be linked to nutrition education and practical agricultural skills for knowledge transfer purposes. |
| | Nutritional programmes <ul style="list-style-type: none"> • Widen community education and enhance responses to the needs of PLHIV, OVC, etc. |

¹⁸ Cash transfers can be conditional (e.g. linked to certain conditions like school enrolment) or can be unconditional.

¹⁹ The provision of allowances attracts people to participate in skills training.

| Appropriateness of various social protection schemes for affected households | |
|--|--|
| Subsidised/free food | Direct feeding programmes <ul style="list-style-type: none"> • It might be important to support special target groups, such as HIV-positive pregnant women or PLHIV on ART, with special food assistance. |
| | Food stamps <ul style="list-style-type: none"> • Stamps or coupons have a cash value when used for purchasing food in commercial stores. • The merchant receives the cash from a bank or government office. • These are often difficult to handle, in particular in rural areas. |
| Subsidised/free inputs | Subsidised/free inputs |
| | Targeted input programmes²⁰ <ul style="list-style-type: none"> • Increase domestic food production, specifically addressing seasonal deficits. • Cheaper than importing food |
| | Agricultural inputs <ul style="list-style-type: none"> • Input programmes should be linked to training relevant for affected households, e.g. labour-saving agricultural methods and products if possible. |
| | Seed aid <ul style="list-style-type: none"> • Purchase of local seeds, • Often done after a climate-related crisis, e.g. famine, • Should be linked to training on seed storage, seed selection and multiplication. |
| | Seed vouchers and fairs <ul style="list-style-type: none"> • Strengthen farmers' procurement systems and stimulate the local economy. • Seed fairs are an important strategy for preserving and distributing local seed varieties. |
| Employment generation | Employment generation |
| | Public works <ul style="list-style-type: none"> • May contribute to employment generation, rural asset creation, skills acquisition, increased demand for agricultural products, and environmental conservation; • Suitable for PLHIV and affected household members if appropriate to their capability and physical strength; • Should be linked to other food and cash-transfer programmes to provide adequate food for PLHIV. |
| | Cash for work <ul style="list-style-type: none"> • Social aspect: cash for work usually favours poor households. • Often self-targeting: minimum wages are offered, so the programmes are mostly interesting for poor households. • Affected household members and PLHIV can use the money for primary needs. If the amount is very small, critical choices might be made between food and other needs. • Can lead to investments in farming. |
| | Input for work²¹ <ul style="list-style-type: none"> • Payment in seeds and livestock increases crop and livestock production. • Should be linked to agricultural training. Then it could be a viable strategy for affected households. |

²⁰ Targeted inputs mainly relate to agricultural inputs, such as the provision of seed.

²¹ Payment in kind (e.g. seeds for agricultural production) is provided in return for work.

| Appropriateness of various social protection schemes for affected households | |
|--|---|
| Employment generation | Food for work <ul style="list-style-type: none"> • Food insecurity and HIV and AIDS are closely linked. Food insecurity can lead to risky behaviour and worsens the effects of HIV and AIDS. • Households might sell the food to buy other important items. • The food offered should not be imported, but should promote local food production instead. |
| | Food for assets²² <ul style="list-style-type: none"> • Creates productive assets owned, managed and used by the household or target community, preferably linked with adequate training; • An integrated approach: e.g. combining nutrition, health, hygiene, agriculture, IGAs. |
| Insurances | Insurances |
| | Health insurance schemes <ul style="list-style-type: none"> • Because of high costs, employees in the informal sector, or farmers etc. are not able to access health insurance schemes. • Free primary and possibly secondary health care (incl. ART) or for an affordable amount for poor people are of great advantage to affected households. • Schemes do not cover transportation costs to hospitals, clinics, health centres etc. |
| | Burial schemes <ul style="list-style-type: none"> • They reduce the negative financial burden of funeral costs. • Burial schemes are sometimes used as savings groups. • Burial schemes are affected by high death rates due to HIV and AIDS. |
| | Self-employed-workers insurance <ul style="list-style-type: none"> • Protection in case of unemployment, ill health etc.; • Beneficial for affected household members if the contribution is affordable. |

Sources: Slater, 2004; Farrington et al., 2004; Devereux, 2006

The following subchapters explore various kinds of social protection schemes provided by the government and other agencies and the context they work in with regard to HIV and AIDS.

²² 'Food for Assets' strategies emphasize the creation of assets that are owned, managed and utilized by the household or target community. Examples are community infrastructure (e.g. village feeder roads, dams, small-scale irrigation), agricultural production (e.g. soil and water conservation, seed multiplication) and post-harvest management (e.g. seed/grain storage, marketing and trading). (USAID, 2004)

5.3 A systematic overview of promising approaches

5.3.1 Social security

A wide range of insurances is available, mainly from bigger companies: health, unemployment, injury/disability, life, old-age and assets, for example. The government, the private sector or the beneficiaries can service the contributions to insurances of this kind. In many developing countries, these insurances are unaffordable for the great majority of poor families. Instead, various kinds of informal and semi-formal insurance are available. For impoverished households or those affected by HIV and AIDS informal or semi-informal insurances can be a very promising strategy to mitigate risk. However, HIV and AIDS also threaten their sustainability. (Slater, 2004)

This subchapter provides background information on various social insurance options and their potential benefits for households affected by HIV and AIDS.

Old age pensions: Old age pensions are meant to reduce the potential risk of poverty in old age, when work capacity declines. Contributions to pension schemes depend on the national set-up. Three different kinds of pension scheme are usually differentiated:

- Pillar I: Contributory, public, defined-benefits schemes
- Pillar II: Mandatory individual accounts in defined-contribution schemes
- Pillar III: Voluntary private or occupational schemes

In a government-managed ‘first pillar’ pension scheme, contributions formerly paid by the current pensioners during employment, as well as contributions by the present working population, are used for the elderly generation on pension. The objective is ‘redistribution’.

‘Second pillar’ schemes may be managed by the government or the private sector. Contributions are placed in individual or group funds and can improve capital markets.

‘Third pillar’ schemes are run by employers for the benefit of the employees.

The first and second pension schemes can be beneficial for the working population in old age – whereby people who do not work over a longer period of time or those who have a lower income, which is often the case with women, are automatically disadvantaged. The third scheme, which is usually run by the employer or by private companies, is an option for the better-off workers. Old age pensions can also be vital in reducing the impoverishment of orphans, who are often looked after by their grandparents. Several countries in sub-Saharan Africa have mainly non-contributory old-age pension schemes. These are introduced in more detail in the section on social assistance (Gent, 2001).

Health insurance: In many developing countries, the state does not cover the full cost of the national health services. Some form of health insurance system exists to cover expenses for various kinds of health problems. In most developing countries, only employees in the formal sectors are included in the mandatory health insurance schemes. The majority of the working population, employed in the informal sector or self-employed, is excluded.

Primary health care, as an approach to reaching the masses with basic health care, is subsidised. In some countries, primary health care is free or an affordable amount has to be paid by the patient. Other countries provide health cards to disadvantaged households and individuals. This service is often administered by village committees (Gent, 2001) or by hospitals and health centres. It differs from country to country but, generally speaking, the public health sector often does not have the capacity to provide ART to all those who are in need. In particular in rural areas, coverage still remains low (UNAIDS, 2007).²³

Several examples of (semi-)formal health insurance schemes exist. See the examples in Boxes 40 and 41 below.

Box 40: A mutual health insurance plan – a Senegalese example

The Senegal National Union of Traders and Industrialists is an association of traders from the informal sector; traders form 93% of the members. The organisation is connected with a huge number of markets and commercial centres. Each commercial centre and market has its own mutual health insurance society.

Process:

- To respond to the needs of its members, the association has combined a mutual health insurance plan with a microfinance scheme.
- This combination allows the association to negotiate with health centres for favourable conditions for its members.
- The association's health plan is committed to the prevention of HIV. Information campaigns on HIV and AIDS and opportunistic infections are carried out on a regular basis.

Effects:

- The members, who mainly work in the informal sector, have a high risk of sickness because of the hard working conditions. Therefore, access to health care is very crucial.
- 75% of the members claim that their health and general situation has improved considerably since they joined the association.

Reasons for success:

- The main reason for this success is the synergy between the health insurance society and the microfinance scheme.
- Other factors are the unity among the members, the wide outreach and the importance of this approach within the wider economic and socio-political environment in Senegal.

Source: AWARE-HIV/AIDS, 2006

²³ Also, not all private health insurance schemes cover antiretroviral treatment and the treatment of HIV-related diseases.

Box 41: A national health insurance scheme – a Ghanaian example

The provision of adequate and affordable health care services for the poor remains a challenge for many developing countries. Ghana has therefore implemented a National Health Insurance Policy (NHIS) based on the results of an in-depth study on existing community- and religious-based models.

Steps:

- First of all, Ghana created favourable conditions for the growth of mutual health insurance organisations.
- On this basis, the NHIS has set up 123 District Mutual Insurance Schemes.
- Generally, the health schemes recommended by law are threefold:
 - An Expanded District Health Insurance Scheme – for all residents of a certain area;
 - A Private Health Insurance Scheme – for people who want to have additional coverage;
 - A Commercial Health Insurance Scheme – Private companies are allowed to derive commercial benefits from health insurance plans.

Funding:

- 2.5% health insurance tax imposed on some services, such as communications, electricity and luxury products;
- 2.5% of workers' contributions to social security.

Effects:

- 6 months after funding in 2005, more than 2,500,000 or 12.5% of the total population of Ghana was registered; 22% from the informal sector.
- The NHIS focuses on care for vulnerable groups, such as women, children, widows and the elderly. They benefit from the solidarity and support of the community and the government.
- There is increased access to medical care for workers from the informal sector.

Source: AWARE-HIV/AIDS, 2006

Health insurance in regions with different levels of HIV prevalence

The needs of the population in regions where HIV is an epidemic include HIV-prevention measures, the treatment of sexually transmitted infections, prompt and effective treatment of opportunistic infections, and access to antiretroviral treatment (ART). The challenge is how to finance these measures and a lot depends on the situation on the ground. An appropriate insurance scheme or other means of assistance have to be found, corresponding to the abilities and needs of the population and the resources of the government and other institutions in place.

- In a low-prevalence region, a community health insurance programme that covers both HIV-positive and HIV-negative people would be a viable option. The benefit package could cover hospitalisation expenses (including opportunistic infections). If required, and depending on the cost, transport to the hospital and also the loss of wages while hospitalised could be incorporated into the benefit package.

This general coverage would ensure that there is adequate risk-pooling and hence would reduce the premium considerably. A scheme only for people infected with HIV would be very costly, as the probability of disease is much higher than in the general population.

- In a middle- to high-prevalence region, where a sizable number of people are infected with HIV, a health-insurance mechanism may not work, as the uninfected may be reluctant to obviously 'subsidise' the health care of people living with HIV. In such circumstances, a voucher system would be a more effective way of financing the treatment of opportunistic infections. For instance, patients infected with HIV could be given a voucher that they could exchange for hospital care when they are sick. This would be a more efficient use of resources. However, a health insurance covering HIV infection, HIV-related disease and AIDS at reasonable cost would be of benefit for PLHIV.

ART, being very costly, should be supplied by the government or aid agencies. Any other financing mechanism may not be sustainable. (Source: N. Devadasan, personal communication on September 30, 2009).

Box 42: Definition of prevalence and epidemic

Prevalence – The proportion of individuals in a population who are infected with HIV at a specific point in time. It is usually given as a percentage. HIV prevalence is reported for adults aged 15-49, or for specific groups (such as for particular age groups, locations, sexes, and population groups for instance migrant workers, sex workers or injecting drug users).

WHO/UNAIDS (2007) differentiate the HIV epidemic as follows:

1. Low-level HIV epidemics

Although HIV may have existed for many years, it has never spread to substantial levels in any sub-population. Recorded infection is largely confined to individuals with higher risk behaviour: e.g. sex workers, injecting drug users, men having sex with other men. HIV prevalence has not consistently exceeded 5% in any defined sub-population.

2. Concentrated HIV epidemics

HIV has spread rapidly in a defined sub-population, but is not well established in the general population. This epidemic state suggests active networks of risk within the sub-population. The future course of the epidemic is determined by the frequency and nature of links between highly infected sub-populations and the general population. HIV prevalence is consistently over 5% in at least one defined sub-population but is less than 1% in pregnant women in urban areas.

3. Generalised HIV epidemics

HIV is firmly established in the general population. Although sub-populations at high risk may contribute disproportionately to the spread of HIV, sexual networking in the general population is sufficient to sustain an epidemic independent of sub-populations at higher risk of infection. HIV prevalence is consistently over 1% in pregnant women.

Source: WHO/UNAIDS, 2007

Death grants and survivor pensions: Most death grants and survivor pension schemes cover the costs of death; they provide payments for the funeral, for example. A survivor pension is based on the income or pension rate of the deceased. The payments might occur only if the deceased has contributed to a scheme for several years. Also the age of the spouse or orphans might be a criterion for payment.

In many developing countries, workers are not covered by formal social insurance, but informal safety nets (such as ‘burial schemes’) are important. Such grants would be very beneficial for households affected by HIV, but especially the poorer section of the population might not contribute to such schemes.

Unemployment benefits: Unemployment benefit schemes are set up to cover the risk of losing a job and income. The scheme has two aims: To close the income gap for people who lose their jobs at no fault of their own and to cover their costs while they search for new employment. The individual risk is transferred to the wider community (Gent, 2001). Such benefits are mainly for employees in the formal sectors. The majority of people in developing countries will not benefit from such schemes, if they exist at all.

Disability pensions: Disability pensions or benefits provide financial assistance to people with a chronic disease or a disability that does not allow them to work. In regard to HIV and AIDS, a pension of this kind would be very welcome. South Africa is an example where disability grants are provided, also for HIV, depending on the health condition of the person concerned.

To conclude, in most cases social insurance does not reach the most vulnerable population groups, including households affected by HIV and AIDS. The types of social insurance that seem most beneficial for affected households are national health insurance schemes. Other forms of contributory social insurance are promising, but do not reach many of the poor households. They must depend on social welfare schemes, as presented in chapter 5.3.2.

5.3.2 Social assistance

Social assistance summarizes measures for vulnerable groups that do not have any other means of support. It mainly focuses on measures such as cash or transfers in kind, conditional or unconditional. This chapter examines various kinds of measures in the context of HIV and AIDS.

5.3.2.1 Food transfers

All people with an infection, not only those living with HIV, need a higher energy intake than “healthy” people. In addition they have an increased need for vitamins and dietary minerals (micronutrients).

Food transfers are a crucial component in a comprehensive response to HIV and AIDS for individuals, households and communities affected by HIV in settings where resources are limited. The lack of food security and poor nutritional status may increase the advance of HIV-related diseases. HIV progressively damages the immune system and makes PLHIV prone to opportunistic infections with symptoms such as fever and diarrhoea. These HIV-related conditions can reduce overall food intake because they can curtail appetite, negatively influence the body's ability to absorb food, satisfy hunger faster, and provoke weight loss. For instance, in patients with chronic diarrhoea the total surface of the inside of the intestines may be reduced by over 50%, causing reduced absorption capacity. Not only do nutritional deficits increase the risk PLHIV have of falling ill with opportunistic infections, it is also more difficult for PLHIV to recover from them. At the same time these people are less able to work, to earn income or produce food, which again affects their nutritional status and that of family members.

The lack of food security and poor nutritional status also have a negative effect on people's adherence to antiretroviral therapy and consequently on its success²⁴. There is increased evidence that people starting antiretroviral treatment without adequate nutrition have lower survival rates. Adequate nutrition and absorption are, therefore, essential for the treatment's success. Antiretroviral drugs themselves may increase appetite and taking them with food may reduce some of the side effects, thus supporting adherence to the therapy.

Antiretroviral treatment should best be combined with safe, clean drinking water and a healthy balanced diet rich in energy, protein, vitamins, and dietary minerals (micronutrients).

Box 43 presents extracts of the WHO guidelines on the special food requirements of PLHIV.

Box 43: Special food requirements of PLHIV

Special food requirements of PLHIV

- Energy requirements are likely to increase by 10% to maintain body weight and physical strength in asymptomatic HIV-infected adults, and growth in asymptomatic children.
- Energy requirements increase by approximately 20 to 30% to maintain body weight in the symptomatic HIV stage, and subsequently during AIDS.
- Energy intake has to be increased by 50 to 100% over normal requirements in HIV-infected children that experience weight loss.

Notice: Energy requirements vary according to the symptomatic or asymptomatic status of HIV infection. They are higher due to factors such as the presence of fever and infection, diarrhoea or vomiting, and the need to gain weight or catch up on growth.

Source: WHO, 2003; UNAIDS/WHO/WFP, 2008.

²⁴ Antiretroviral therapy reduces the replication of HIV in the body and therefore reduces the appearance of opportunistic infections and HIV-related diseases and improves the quality of life.

It is beyond our scope to go into further detail concerning the nutritional requirements of specific groups. Special attention has to be given to the nutritional requirements of pregnant women living with HIV, and during infant feeding (WHO, 2009b), as well as the nutritional care of HIV-infected children (WHO, 2009a). Malnutrition is one of the most common problems in HIV positive children. These guidelines may need to be updated as new research findings become available.

A nutritious, healthy, balanced diet is crucial for PLHIV and food transfers are important for those that do not have one. Conditional or unconditional food transfers (also called food aid) are the most common type of social assistance. Food aid can be criticized as a disincentive for local food production because of the negative effects on local markets, or for creating dependency. Additionally, in the context of HIV and AIDS, the benefits and costs of food aid have to be compared to those of alternative strategies. It should also always favour locally produced food and be combined with nutrition education and other kinds of support in order to avoid long-term dependence on it.

The following key considerations are important for measures involving food aid in the context of HIV and AIDS:

- Identifying the right target group (the most vulnerable households). A sensitive approach is needed to avoid undesired outing, potential stigma and discrimination when assisting PLHIV.
- Making sure that women, including pregnant and lactating women, and children participate in the programmes. Emphasis should be placed on appropriate infant feeding as one component of the prevention of mother-to-child transmission and specific information should be provided, preferably by health personnel.
- Supporting adequate diet and nutritional intake within treatment programmes, including counselling on nutrition and referral to services. Food aid should have a time limit, e.g. maximum of 6 to 9 months (depending on the health situation of the person).
- Focusing food aid on the entire family (not just on one person in the family).
- Finding appropriate distribution points and manageable packaging for rations.
- Appropriateness of the rations in terms of nutritional value, palatability and digestibility in the cultural context. Depending on the stage of the infection, in particular during times of severe sickness, PLHIV may be unable to consume some kinds of food.

5.3.2.2 Nutrition measures

Measures related to nutrition commonly target the general population, but are highly beneficial for PLHIV (independent of their awareness of their status). The main aims of public nutrition measures are to reach a maximum number of beneficiaries at a minimum cost in order to improve nutrition in general and ensure food security. Four types of measures can usually be distinguished:

a) Fortification: This is the process of adding vitamins and/or minerals to food to increase its overall nutritional value. This can be done on several levels: mass or universal (e.g. for a staple food as required by law), targeted (e.g. for infant feeding), household (e.g. crushable tablets), or hammer-mill level (done at a local mill). In the context of HIV and AIDS, fortification seems to be of particular interest, because multiple micronutrients can improve nutrition and health. Besides, local food fortification initiatives can generate local income. Ideally they should be linked to treatment initiatives. Many NGOs have been involved in food fortification.

b) Supplementation: This is the provision of vitamins or minerals administered orally or by injection to avoid a deficiency in a specific micronutrient for a certain time period (e.g. vitamin A for children under 5; folic acid or iron for pregnant women). In general, it is a costly intervention. To date, there is a lack of scientific data on the effects of supplementation on HIV progression in asymptomatic PLHIV.

c) Nutrition education: Accessible relevant nutrition education for the entire population is another public health strategy. This includes the promotion of a diversified healthy diet, of growing techniques that increase the nutrient value of crops and of processing and storage techniques that minimise nutrient loss. Public nutrition education is also beneficial for PLHIV, whether they know their status or not. Many NGOs are specialists in nutrition education.

d) Public health measures: Public health measures aim to address issues like malnutrition, poor sanitation, access to potable water, malaria control and parasitic infections. In addition, the public health sector is responsible for advocating and monitoring nutrition and food security measures. Public health measures are also crucial for PLHIV. NGOs play an important role in implementing these measures. (CRS/USAID, 2006)

The example in Box 44 shows a community-based nutrition project in the context of HIV and AIDS.

Box 44: A community-based nutrition project – a Kenyan example

The Community-Based Dietary Intervention Project for households affected by HIV and AIDS in Kenya is run by the Kenya AIDS Intervention Prevention Project Group (KAIPPG). It is a community-based nutrition project where training in growing crops, animal husbandry and in food production and processing are specifically tailored to the needs of PLHIV.

- 180 vulnerable women were selected from regional units. Six nutritional field schools of 30 members each were formed to promote informal learning in the community.
- The participants were trained in energy-saving technologies, local production of animal and plant cakes, bread-baking, caring for children infected with HIV and safe, hygienic food practices.
- Participants donated land and labour to the project. 15% of the yield from the field school was retained and given to other widows who did not directly benefit from the first phase of the project.
- The gesture of sharing helped the project to expand without external support.
- All the trainees from the 6 schools were interlinked. The specific needs of each individual member were addressed. The trainees from each school were subdivided into groups of 10.
- These smaller groups assisted each other in farm operations, marketing activities and other daily needs.
- For purposes of sustainability, the project established links to relevant government departments, other NGOs and private groups.

Effects:

- Improvement in the health condition of widows and orphans infected with or affected by HIV and AIDS;
- Problems of malnutrition among widows and orphans were solved locally.
- Empowerment of vulnerable community members, e.g. in the area of nutrition management and hygiene.

Challenges:

- Illiteracy: High levels of illiteracy and the advanced age of the trainees made lecturing difficult. Many lessons had to be repeated several times.
- Financing: The programme would like to share its experience with the public at large, but not enough funds are available for a regular newsletter.

Source: KAIPPG Report <http://www.kaippg.org/reports.html>

Even though public food measures are mainly targeted at the general population, they can be highly beneficial for PLHIV because they lead to better nutrition and health and to an improved immune system. In particular, food fortification, nutrition education and public health measures are important responses to HIV and AIDS.

5.3.2.3 Cash transfers

In wider humanitarian debates, cash transfers are increasingly recognised as a useful alternative to food aid. For households affected by HIV and AIDS, cash might be more appropriate than food aid, because these households may be struggling with other expenses, such as various non-food items, house rent, and education for the children. The amount of the cash transfer should not be too small, so that households do not have to make critical choices between food and other needs.

Currently more than a dozen countries in sub-Saharan Africa (like Ethiopia, Malawi, South Africa and Zambia) have cash-transfer programmes.

Cash transfers can be conditional (e.g. based on school enrolment) or unconditional. In the context of HIV and AIDS, most transfers are unconditional, but several case studies have been carried out to explore conditional transfers. (Adato et al., 2008; Adato, 2007)

Table 18 compares the two approaches in the context of HIV and AIDS.

Table 18: Benefits and disadvantages of conditional and unconditional cash transfers

| Conditional | Unconditional |
|---|--|
| <p>Benefits</p> <ul style="list-style-type: none"> • Can lead parents to invest in the education and health of their children • Increase public support; policy makers can monitor them via progress indicators in the area of education and health. • Can be used to respond to specific needs of affected households, e.g. health information, early child development <p>Disadvantages</p> <ul style="list-style-type: none"> • Beneficiaries have different preferences from development planners | <p>Benefits</p> <ul style="list-style-type: none"> • Beneficiaries are free to use the cash according to their needs <p>Disadvantages</p> <ul style="list-style-type: none"> • Meeting the requirements for unconditional cash transfer might exceed benefits • Beneficiaries use the money for purposes others than expected by development planners |

Source: Adato, 2007

Some examples of cash transfers

Social pension: Non-contributory pensions are an important form of social cash transfer aimed at social protection on a permanent basis (GTZ, 2005). Until now, four countries in southern Africa: South Africa, Botswana, Namibia and, recently, Lesotho offer non-contributory pension schemes to elderly citizens (Devereux, 2006). Citizens in the age group of 60 and above are eligible (whether they are retired or not). The following positive impact has been observed, some of it directly related to HIV and AIDS:

- The regular income reduces the household's vulnerability to crises.
- Crises can be handled more successfully.
- Food security and nutrition are improved.
- The regular cash transfers promote local economic growth, even in remote areas.
- Social pensions help support OVC. (Source: Devereux, 2001)

Boxes 45 and 46 present examples of non-contributory pension schemes. Both schemes presented address a specific, very vulnerable target group. The examples illustrate the problems the governments have in financing such structures and extending such schemes to other vulnerable groups.

Box 45: Social pensions for people in rural areas – a Brazilian example

Non-contributory pensions for people in rural areas in Brazil

There is a non-contributory pension scheme for rural beneficiaries (men as of 60 and women as of 55) in Brazil. Eligible are people as of this age, surviving dependents, the disabled, and subsistence workers.

A multi-dimensional survey reported a lower incidence of deprivation among the beneficiaries of non-contributory cash transfers.

Some benefits:

- Improved health among beneficiaries and other household members,
- Improved housing,
- Improved social networks.

Some potential disadvantages:

- Lack of financial and political sustainability for pension schemes in many governments;
- May negatively affect the performance of informal networks for elderly people.

Source: Farrington et al., 2004

Box 46: A non-contributory old age pension – a Lesotho example

Social pensions in Lesotho

Lesotho is the fourth southern African country to introduce non-contributory pensions. Of those countries, Lesotho is by far the poorest. Several factors lead to the particular vulnerability of the people in Lesotho: changing patterns of labour migration to South Africa, families unable to cope with little income, high HIV prevalence, etc.

Main strategies:

- The scheme is designed, implemented and financed entirely by the government of Lesotho. It responds directly to the severe impoverishment of elderly people, who are often the guardians of orphans due to HIV and AIDS.
- The scheme targets all citizens already above 70 years of age (higher age to reduce costs). Beneficiaries receive up to Maloti 150 (£13) per month. Because of the difference in the life expectancy of women and men, more women (60%) than men (40%) benefit.

Importance of the scheme:

- The scheme accounts 3% of gross national income in Lesotho.

Main challenge:

- The main challenge now is to extend coverage by lowering the age of the beneficiaries and to design social welfare schemes for other groups that are vulnerable for different reasons.

Source: Devereux, 2006

Attendance incentive: Attendance incentives are a conditional cash-transfer strategy to motivate impoverished households to invest in the education of their children or to participate in training programmes, for instance. The wider community can also benefit from this strategy through improved health, education facilities and knowledge accumulation. In the context of HIV and AIDS, this is a laudable strategy because a lack of resources often leads to a shift of resource allocation and usually to decreases in investment in the education and health of children, for example.

Box 47 presents an example of a conditional cash-transfer programme. Households that regularly visit clinics, participate in health education and nutrition supplement programmes, and send their children to school receive cash transfers from the government. Evaluation results show that the additional available cash is mainly used in the areas of nutrition and health.

Box 47: The effects of an attendance incentive programme – a Mexican example

ProgresA, Mexico

The poverty alleviation programme of the Mexican government, PROGRESA, carries conditions. It transfers cash to households living in extreme poverty, contributing up to 19.5% of the average income of those families. The cash transfer is linked to regular clinic visits, health education, nutritional supplements and school enrolment on the part of the families.

Several benefits were observed on a household and community level:

- Improved health and school attendance among the children, in particular the girls;
- Improved nutritional status, in particular among the girls;
- Less child labour;
- The communities benefit indirectly through improved health and education facilities.

Source: Adato, et al., 2008

Remarks: This case study is not focused on HIV and AIDS, but this could be a valuable strategy.

5.3.2.4 Food transfers versus cash transfers

Both strategies – food transfers and cash transfers – are relevant forms of social assistance for PLHIV and affected household members. The relationship between affected households/individuals living with HIV and food security has to be taken into account. In terms of ART for people without food security, the provision of food rations could be a better option than cash. Other options are the use of food stamps, coupons or vouchers. Table 19 compares the advantages and disadvantages of both.

Table 19: Food transfers versus cash transfers in the context of HIV and AIDS

| Food transfers | Cash transfers |
|--|--|
| <p>Advantages</p> <ul style="list-style-type: none"> • Address food insecurity immediately • Can directly address nutritional deficits • Can be fortified or enriched with nutrients • Can be self-targeting (target group can easily be identified) • Often favour women, children and the elderly | <p>Advantages</p> <ul style="list-style-type: none"> • Allow more beneficiary choice • More cost efficient than food transfers • More discreet than food rations, minimising stigma and discrimination • Encourage local production and stimulate markets |
| <p>Disadvantages</p> <ul style="list-style-type: none"> • High transportation costs • Food losses through spoilage • Imported food aid can have a negative influence on local markets • Restricted food products may limit nutritional value • Type of food is not accepted by the beneficiaries • Food distribution may expose recipients to stigma • Food can be sold to meet other needs. | <p>Disadvantages</p> <ul style="list-style-type: none"> • Can be used for non-food consumption • When used to purchase food, food products may not meet requirements for balanced diet and micronutrient needs. • Decision on use of cash often made by men |

Source: Greenblott, 2007

Functioning food markets and access to them by target groups are preconditions for the success of cash transfers. This is often not the case in conflict areas or in post-war countries, for instance.

5.3.3 Labour market measures: food for work, cash for work, input for work

The primary objective of labour market measures is to generate employment. It is an essential strategy in social protection, the reduction of poverty and migration due to unemployment, as well as gender discrimination, among others (ADB, 2008). In the context of HIV and AIDS, job opportunities and income can help minimise the risks of HIV infection and mitigate the effects. This chapter introduces various kinds of public works programmes in the context of HIV and AIDS.

Public works programmes mainly focus on ‘food for work’, ‘cash for work’, and some on ‘input for work’. They provide payments in cash or kind in return for labour (Slater, 2004). ‘Food for work’ is a common approach for providing food aid in a way that seems to create less dependence compared to free, unconditional distribution.

However, approaches requiring labour may increase food insecurity for people living with HIV and affected households, as there is usually not enough labour available and

their own work capacity is generally reduced. Affected households might not even be able to participate at all. A viable option could be to transform the programme into 'food for care' in order to provide people caring for orphans or sick people with food. To determine the appropriateness of such a measure, the following aspects must be taken into account: sustainability, food for work that was formerly voluntary, the right targets. (Slater, 2004)

A promising public works strategy in the context of HIV and AIDS is 'food for assets' (FFA). The intention is to create productive assets to be owned, managed and used by the household or community involved, but to link these assets to skills and knowledge enhancement.

- The FFA might include a variety of training modules, such as conservation farming, labour-saving technologies, the introduction of nutrition-rich crops, home-based care, the promotion of labour- and tool banks, for example.
- FFA can reinforce a community's social resources (e.g. by supplying food to home-based-care providers) or its physical assets (e.g. by renovating a local clinic or improving a community vegetable garden).

FFA is an integrated approach 'combining better nutrition, health and hygiene conditions; agricultural recovery; the restoration of coping strategies; improved income and the protection or recovery of productive assets' (UNICEF, 2005; Gillespie et al., 2005).

Examples of FFA are illustrated in Box 48 to 50. Both examples show that FFA is often linked to productive assets or social assets.

Box 48: Food for assets – a Zimbabwean example

Food for housing chronically ill household members in Zimbabwe

A World Vision team, in conjunction with target communities, identified the need for improved housing for households headed by elderly or chronically ill people.

Community members identified impoverished households; local resources were combined and houses renovated. As a 'food for assets' project, the community workers received food rations on a monthly basis.

Box 49: Food for assets – a Lesotho example

Food for the development of keyhole gardens in Lesotho

The organisation Care and its local partner TEBA have developed a nine-month training programme for food-insecure households on how to build and maintain a 'keyhole' garden. The gardens, built using local materials, are resistant to dry weather conditions and provide high yields of vegetables year-round. Elderly people and the young can easily handle this type of garden. The participating households are only allowed to graduate from the programme when their garden is functioning and they possess enough skills to maintain it.

Source: FANPRAN, 2006

Box 50: Food for assets – a Malawi example

The Soya Seed Revolving Fund and Diet Diversification

The Soya Seed Revolving Fund, which was run by the World Food Programme in collaboration with the Christian Hospital Association of Malawi from 1994-98, targeted severely malnourished children under five and pregnant and lactating women. The programme was linked to an FFA training programme in soy-maize intercropping and various soya processing and preservation methods.

Progress:

- Participants in the FFA-project were trained in soya production and processing. During their training, they received food rations.
- After the training, the households involved were organized into production groups.
- Further technical support and seed were provided. Each household had to return 1kg of soya to the project management unit and also to the community storage facility.
- Excess soya was bought from the farmers by small-scale production units collaborating with WFP.
- The soya was used in the hospitals for children and women at risk. The women also received nutrition training.

Effects:

- The creation of income-generating opportunities, also through the market linkage;
- Nutritional rehabilitation of children and women;
- Many households benefited from the revolving mechanism.

USAID, 2005

Remark: The idea behind the ‘revolving soya fund’ project seems very successful and easy to repeat in the context of HIV and AIDS. Such a project should cover at least 4 rainy seasons. Depending on the location, such a project should be planned for at least 2-4 years.

Public works approaches are an opportunity for PLHIV and affected households, but bear the risks of dependency and lack of sustainability. The options that seem most suitable are ‘food for assets’ or possibly ‘food for care’ because they are linked to skills acquisition and offer wider benefits for the community.

5.3.4 Child protection

Due to HIV and AIDS there are a huge number of orphans. Usually, parents provide the main care and support for children. Apart from psychological stress, when children lose one or both parents, they face a great risk of poverty (UNICEF, 2007). It will remain a tremendous challenge in the future to provide adequate social and psychological care for orphans and their guardians. This chapter provides an overview of social protection schemes that support orphans and vulnerable children (OVC).

5.3.4.1 School feeding

School feeding programmes are generally popular and are becoming even more so with the increasing number of AIDS-related orphans. Most school feeding programmes have three main objectives:

- Improvement of the children's nutrition,
- Increased enrolment and attendance (particularly for girls),
- Improvement of students' educational performance.

Irrespective of HIV infection, the effects of school feeding programmes vary. In the context of HIV and AIDS, the following aspects have to be considered when deciding whether a school feeding programme is the right measure:

- Affected families may not send their children, in particular girls, to school because of a free meal when they need their support more at home (but attendance is more likely with than without this assistance).
- If orphans are targeted for the school feeding programme, they could face the stigma and discrimination connected to HIV and AIDS.
- In the context of HIV and AIDS, school feeding programmes might possibly be linked to a school garden programme for the transfer of knowledge about gardening and nutrition, especially where children lack adults to teach them on cultivation.

Box 51: The benefits of school feeding – a Zimbabwean example

In 2005, the organisation C-Safe started an emergency school feeding programme in Zimbabwe.

Process:

Focus-group discussions with children revealed that the recipients of meals at school received fewer meals at home, leading to the opinion that the school feeding programme was of no benefit for the child.

Effects:

Further investigations revealed that the money saved by providing fewer meals to the child was used for other important needs, such as health-related services, payment for soap, etc. Furthermore, it encouraged parents to keep their children in school despite difficulties.

Source: C-Safe/Care, 2004

5.3.4.2 Food for education programmes

Food for education programmes mainly provide free food grains to impoverished families if their children attend school. These grains can be used for household consumption or can be exchanged for other household needs. In the context of HIV and AIDS, this kind of incentive might enhance school enrolment better than school feeding programmes.

5.3.4.3 Government child support

Some countries have initiated cash (e.g. allowances for books, school and transport allowances) and kind (e.g. food, clothing, exemption from school and medical fees) transfer mechanisms to support orphans and vulnerable children. These transfers are directly targeted at the children or their guardians. Examples are orphan allowances, foster-care allowances, and basic pensions for the elderly (who often care for several orphans) and chronically sick guardians of the children. Cash transfers to orphans might have to be linked to skills training, so that young household heads can make adequate use of the money, for example. Allowances paid to guardians might encourage foster families to take care of more orphans, but this also carries a risk that orphans will not benefit directly if the foster families use the money solely for themselves. (Slater, 2004)

The example in Box 52 shows social protection schemes available for vulnerable households in South Africa. Another example from Kenya, presented in Box 53, describes government support for OVC.

Box 52: Social grants and food parcels – a South African example

Food parcels and social grants

South Africa has implemented several strategies to assist impoverished households; some focus mainly on children.

Strategies:

- The social welfare department supports impoverished families and orphans with food parcels on a monthly basis.
- In addition, there are several kinds of social grants, e.g. child grants, orphan/foster care grants, old-age pensions and disability grants.

Effects:

- Between 1998 and 2003, the number of beneficiaries increased from 2.8 to 5.8 million. For many households, these grants are the only source of income.
- Studies have shown that more affected than non-affected households receive grants. In particular pensions and child and orphan grants are important for households headed by the elderly taking care of orphans.
- Social grants, in particular those with higher amounts, really contribute to poverty reduction.

Source: FANRPAN, 2006; Booysen, 2004

Remark: Unfortunately, this case study does not show how the social assistance schemes (food parcels and social grants) are linked to more holistic approaches, including programmes for the transfer of knowledge to orphans in the field of agriculture and life skills. Neither does the example show in how far households headed by children benefit.

Box 53: Cash transfers for OVC – a Kenyan example

Cash transfers for OVC in Kenya

In 2004, a cash-transfer scheme to ensure foster care for orphans was initiated by the Ministry of Home Affairs and the National AIDS Control Council, with assistance from UNICEF and SIDA.

Strategy:

- The foster households or community-based initiatives received the equivalent of USD 0.50 per day every month. At the initial stage, 500 children were reached.

Effects:

- First assessments seem to show that the money was spent on food, clothing, medical expenses and minor household purchases.
- Further, school attendance increased and some children living with HIV were able to obtain ART. The programme plans to scale up to reach 2,500 OVC.

Source: Slater, 2004

Remarks: This example shows that cash transfers for orphans can promote foster- and community-based care and that the grants are used for the benefit of the child. In this case study, only a few children were reached. It has to be explored in how far all the OVC in a country could benefit from this type of programme. Further, it remains to be evaluated in how far the money incentive is misused by foster families.

Programmes assisting in the care and education of OVC are very important in the context of HIV and AIDS. Besides cash transfers to families and guardians taking care of OVC, households headed by children also have to be considered in child support programmes. They often lack close adult relatives or neighbours to look after them and to lobby for their educational and economic development.

5.3.5 Micro and area-based schemes in agriculture

There are micro and area-based projects aiming to provide social protection in the subsistence agriculture sector and the urban informal sector. This chapter gives a short overview of support measures in the agricultural sector.

Agriculture-related insurance: Crop and livestock insurances provide various kinds of risk mitigation related to agricultural production (Farrington et al. 2004). There are different levels of agriculture to be considered: subsistence agriculture, semi-commercial agriculture, commercial agriculture and specialised production systems. In developing countries, subsistence and semi-commercial agriculture play a significant role. But in particular for these two categories, agriculture insurance is difficult to organize, because of the limited area under cultivation and the low asset base. Insurance schemes for this target group are hardly viable as administrative costs to collect the premium and to verify claims are too high. Therefore, these

schemes are run by governments at no profit or below profit. Many subsistence farmers may not participate in the scheme due to the administrative burden or because they do not know about the existence of insurance schemes of this kind. In the context of HIV and AIDS, crop and livestock insurance would be of advantage, but impoverished households might have other priorities than participating in such insurance schemes.

Farm subsidies: Governments often subsidise agricultural inputs like seeds, fertilizers or agro-chemicals. Indirect subsidies are provided in the form of research, technology development and the availability of improved crop and livestock varieties to farmers at affordable prices. Free or highly subsidised immunisation campaigns for livestock are also offered.

Integrated approaches: Apart from insurances and subsidisation, many other strategies are available to mitigate agriculture-related risks. Among these strategies are infrastructure projects (road construction, markets, irrigation etc.), facilitated access to credits, improved agricultural extension, land use programmes, etc.

6 Conclusion and recommendations

This study explores a range of responses to HIV and AIDS in three key areas: agriculture and rural development, self-help, and social protection. For each area under study, detailed conclusions and recommendations are provided.

Agriculture and rural development:

Labour-saving sustainable agricultural practices – agro-biodiversity-related strategies – farm mechanization – energy-saving methods at the household level – hygiene and sanitation – knowledge preservation

The agricultural and rural development sectors play a significant role in HIV and AIDS mitigation, because agriculture, rural development and related activities are central to the livelihoods of many poor households. Besides adapting core activities to the context of HIV and AIDS, such as extension messages and inputs adjusted to suit households headed by children, women, or the elderly and the households of people living with HIV, new areas have to be taken into consideration in the sector. These include the assurance of equal access to resources by men, women and (if possible) children; addressing land and property rights for women and children; and changing local traditions that are unfavourable in the light of HIV transmission and the mitigation of HIV and AIDS. Therefore it is important to establish partnerships with people working in other sectors: in the areas of health, HIV and AIDS, nutrition, water and sanitation, and legal rights.

With regard to agricultural production and food security, labour- and time-saving methods are of great significance to affected households because of the labour and time constraints they face. These methods include:

- Labour-saving, sustainable, agricultural production methods (agricultural diversification, conservation agriculture, integrated pest management);
- Agro-biodiversity-related strategies (traditional/indigenous crops, home gardens, community seed systems, wild food plants, medicinal plants);
- Farm mechanization (hand tools, simple irrigation systems, draught-animal power, the use of tractors);
- Energy- and time-saving methods at the household level (labour-saving cooking equipment, food preservation and processing, water and sanitation).

In the area of labour-saving technologies, the promotion of sustainable agricultural practices that save labour (e.g. because less time for weeding is required) have to be promoted. Strategies can consider labour-saving cultivation and land preparation methods (e.g. intercropping, zero or minimum tillage, mulching, row planting etc.), different crops (less labour intensive, better adapted to local conditions), new production systems (conservation agriculture, keyhole gardening) and integrated pest management systems. Related strategies also have to consider market conditions, e.g. potential market values of newly introduced crops. Introducing conservation

agriculture can be a promising strategy because it has the potential to save farm labour, avoid labour peaks and reduce drudgery. But existing values, the knowledge of extension officers, related infrastructure and climate (enough precipitation) are important factors to be considered.

Regarding strategies related to agro-biodiversity, the promotion of homestead gardening to boost household nutritional security seems adequate in many cases. Exceptions could be a basic rejection of home gardening and/or the presence of free-range livestock. The promotion of homestead gardening should also aim at preserving local knowledge, e.g. planting traditional/indigenous crops, medicinal plants, and woodlots, with emphasis on transferring knowledge to orphaned children and youth. The promotion of community seed systems is also a promising strategy for enhancing food security and preserving local knowledge and local crop varieties.

At the household level, the introduction of improved storage methods can have tremendous effects on the quality of stored food and the availability of food throughout the year. The promotion of labour-saving cooking equipment, such as insulated baskets, may also be promising. Energy-saving methods usually save labour and costs. Additionally, they have a positive effect on the natural environment.

In the area of mechanization, the promotion of simple tools and technology to facilitate cultivation and household tasks should be a priority. Farm mechanization, by means of diverse hand tools, can already significantly improve yields. In areas where draught-animal power (DAP) is widely used, strategies should be developed to make better use of DAP, especially for secondary tillage, transportation and income generation. It is important to ensure that impoverished households benefit from such measures.

Measures involving water and sanitation play an important role in the response to HIV and AIDS. In particular, simple and affordable technologies, such as roofwater harvesting and certain water treatment techniques should be promoted more widely. Water, hygiene and sanitation are significant factors in the care of people living with HIV. Safe water, sanitation and a clean hygienic environment reduce exposure to pathogens, which have a negative effect on human health and the immune system. Additionally, the water collected may be used for irrigation purposes. The promotion of simple irrigation techniques like drip-irrigation kits and treadle pumps is also a promising strategy. Work in the agricultural sector in this connection should be closely coordinated with projects in the water and health sectors.

When introducing labour-saving technologies on the production and household levels, existing production systems, cultural values, and climatic and market conditions have to be taken into consideration. Further, the level of effect HIV and AIDS have on a person/household must be taken into account to ensure that the most suitable technology is promoted. A key constraint is, undoubtedly, the limited potential of

impoverished households to try out and adopt innovations. The first measures therefore might have to be carried out as charitable or social work. Then time-, energy- and labour-saving strategies could be introduced to make existing tasks easier. Measures requiring capital input should be linked to local credit and savings clubs, or microfinance services if possible. Otherwise they should be subsidised. In order to enhance the overall capacity of a community, group-based approaches that include solidarity and the sharing of human and other resources should be preferred.

Strategies to promote the transfer of knowledge within and between households are desperately needed in the response to HIV and AIDS. The orphans left behind lack the instruction normally provided by parents. Therefore, school and community gardens, community seed systems, community knowledge centres and adequate channels for communicating extension messages could be established to fill this gap. Extension approaches might need to be changed, e.g. by finding appropriate approaches to address orphaned youth, targeting whole families instead of only individuals in a household, encouraging parents to train their children in agricultural skills, training several key farmers instead of only one per community, and facilitating the exchange of knowledge within the community. Extension messages should be passed on equally to everybody, without referring to typically male or female tasks.

In order to respond to HIV and AIDS successfully, many structural issues have to be addressed: gender inequality, the rights of children and women, and also unfavourable local traditions. The study demonstrates the need for more awareness of these issues within the agricultural and rural development sectors. Addressing gender issues and rights for children and women regarding land ownership and property inheritance, and also the effect of local traditions on agricultural production, can be done in partnership with other organizations and sectors. Addressing structural conditions of this kind can have a wide effect on HIV prevention and in the mitigation of HIV and AIDS. More emphasis and appropriate government frameworks are needed and NGOs, FBOs and community-based organizations should be involved.

There is still a need for better documentation of more promising practical examples of labour-saving methods and light mechanization to illustrate the context in which the work is carried out and the challenges faced. Many local NGOs and community-based organizations may have innovative responses on a limited scale, but well adapted to a specific situation and based on local initiatives. With accurate documentation and publicity, these responses could be scaled up by governments and other agencies and adapted to/adopted in other contexts.

National policies for the agricultural and the rural development sectors have to accentuate the link between developments in these sectors and HIV and AIDS, and to create a suitable framework. The development and implementation of agricultural and rural development plans for the response to HIV and AIDS is of great relevance. Generally, integrated approaches are needed if the livelihood strategies of affected

households are to be diversified. With regard to human-resource management, HIV/AIDS workplace policies²⁵ addressing the prevention of HIV and the effects of HIV and AIDS on the sector, e.g. loss of qualified personnel and knowledge, are also vital.

Self-help:

Local support groups – income generation – microfinance – care for orphans – legal protection for orphans and women

HIV and AIDS have a negative effect on the economic situation and are likely to increase poverty. In turn, due to impoverishment, affected individuals and households often lack access to financial resources. People living with HIV and affected households primarily depend on family, neighbours and other community members to overcome the financial and psychological strain caused by HIV and AIDS. But the effects on individuals, households and communities also reduce the effectiveness of grassroots responses, and assistance from outside may be needed to mobilise and strengthen the self-help potential of households and communities.

Various kinds of community support groups exist in the areas of income generation, crisis support, and financial and agricultural support. In the context of HIV and AIDS, support schemes addressing financial issues, labour scarcity and health-related issues are of great importance, such as labour-sharing clubs, mutual aid societies and rotating savings clubs. Such community-based grassroots responses are valuable starting points for support from outside and it is recommended that government and organizations strengthen, mobilise and build on these capacities. They can offer not only financial resources and inputs, but also training in technical and leadership skills, and group and financial management. Generally, measures from outside should not duplicate existing efforts, but rather strengthen those that already exist and enlarge their scope.

In order to overcome the financial strain, it is of vital importance for affected households to develop sustainable long-term coping strategies. In view of this, income-generating activities (IGAs), access to microfinance, and participation in savings and credit groups are beneficial. IGAs for people living with HIV and affected household members can only be successful if the risk they bear is minimal and if they require little investment and labour. Preferably they should be run close to the homestead. Access to microfinance and participation in savings and credit clubs can also significantly improve IGAs. The potential of a household to participate successfully in IGAs and the ability to pay back loans depends highly on the situation of the household and the number of available productive household members. This has to be taken into account when setting up programmes involving IGAs. More

²⁵ Ideally, an HIV/AIDS workplace policy addresses staff awareness of HIV and AIDS and its effects in the workplace in terms of infected and affected staff, job security, medical and financial assistance, the prevention of stigmatisation and discrimination, etc.

documentation on the successes and challenges of IGAs over a longer period of time would be helpful. If possible, studies should reveal precisely when IGAs are most likely to be effective, while considering the overall situation and stage of the affected households.

Some of the difficulties microfinance institutions (MFI) face are sickness and death among their clients. Affected households are also likely to be overburdened when having to pay back loans. But access to loans is still very important when building up the economic base of affected households. Innovative coping strategies have been developed by MFIs to overcome the challenges posed by HIV and AIDS. For instance, MFIs have built up strategic partnerships with health and life insurance companies, as well as with burial societies, to provide access to these insurances for their clients at affordable conditions. This also reduces the MFIs' risk of losses due to 'unfavourable loans' in the case of sickness and death among their clients. Other adjustments include fluctuating loan sizes²⁶, the encouragement of regular savings and prolonged loan terms.

Appropriate responses in the field of microfinance and savings and credit for people living with HIV and affected households should be tailor-made and may include:

- Voluntary, flexible models, where the clients can decide the amount and the rhythm of saving;
- Access to savings in times of urgent and sudden needs;
- Flexible participation requirements for group meetings;
- A constitution requiring that all group members be accepted and prohibiting exclusion due to disease;
- A "solidarity box" to assist group members in need.

Bigger MFIs might not be willing to offer programmes tailor-made to the specific needs of clients affected by HIV and AIDS. However, bigger MFIs are in a better (financial) position to offer tailor-made programmes for affected individuals, households and groups through portfolio diversification and client diversification than smaller MFIs.

MFIs can refer their clients to specialised providers of health care and insurance services. In collaboration with different organizations, they can offer activities on HIV and AIDS awareness, awareness of inheritance rights for women and children, and legal advice to women on inheritance and children's rights.

MFIs have a particular responsibility to avoid indebtedness among their clients. Services other than microfinance might be the appropriate option if the requirements for accessing microfinance cannot be met. MFIs can provide information about

²⁶ Loan sizes are not fixed, but can vary, adjusted to the specific needs of the person involved.

access to financial resources such as grants (for orphans and vulnerable children, for instance).

Even though microfinance offers great potential for affected households, many of them may be unable to participate because of the overwhelming effects of HIV and AIDS and because of the limited scope of microfinance in general.

Regarding local traditions, it has to be mentioned that they can contribute to HIV prevention and mitigation (like mutual assistance among households in cultivation) but some have a negative effect. Following required rites and traditions may overwhelm households and communities financially, e.g. long mourning practices and lavish funeral ceremonies. Some of the cultural practices did not demand such high expenditures in the past as they do today (e.g. the cost of burial ceremonies). When changing traditions, involving the whole family, including the extended family, is extremely important because they all play a large role in decision-making.

Adjusting local traditions to the changed context is unavoidable: some traditions will have to be modified or abandoned, others will have to be revitalised and enhanced. Sensitivity and knowledge of the cultural context will help to develop appropriate strategies, namely strengthening useful local customs and questioning or even abandoning those with a negative effect. Changing local traditions is probably the most difficult intervention and broad awareness and the commitment of traditional local leaders and policymakers are essential.

The huge number of orphans and vulnerable children (OVC) is one of the major challenges now and will remain so in the future. When addressing this challenge, community-based responses are of great importance. Listening to the orphans express their needs, taking these into consideration when planning, and making them part of solution is the basis for finding the appropriate form of assistance. OVC may grow up in households headed by children or in family-of-origin-like structures such as extended families or foster care. These arrangements have to be well monitored. In addition, the property rights of children and women have to be secured by law and the law has to be upheld through the involvement of the community, NGOs, FBOs and governmental structures. Their tasks include strengthening community and family structures and supporting OVC psychologically, economically and in the field of education. Responses that ensure adequate care for OVC and address the legal rights of children and women are of crucial importance for their future lives and for society as a whole.

To conclude, to mobilise and strengthen self-help and community responses is of absolute necessity. Intervention from outside should support and build on existing structures. In some cases, these responses are insufficient or even non-existent and so households and individuals have to be supported through social protection schemes for a period of time. In order to respond to HIV and AIDS successfully, many

structural issues have to be addressed, including unequal access to resources for women and children, (land and property) rights for children and women, and also some unfavourable local traditions. Addressing structural conditions of this kind can have a wide effect on HIV prevention and in the mitigation of HIV and AIDS.

Social protection:

Social insurance – food and cash transfers – nutrition measures – child protection – labour-market measures

Social protection is still an underexplored area in the response to HIV and AIDS. Concerning southern Africa, which is the most affected region in the world, Devereux (2006) stated: ‘social protection as guaranteed, predictable transfers to all chronically vulnerable groups remains a distant ambition’. Until now only four countries in southern Africa offer non-contributory pension schemes, for example. Social protection measures are mainly designed as welfare programmes to offer relief to people in sudden crises like natural disasters.

Several studies (Adato, 2007; Adato et al., 2008; Devereux, 2006; Booyen, 2007) show that social protection schemes, such as social grants, can potentially reduce poverty and help severely impoverished families – including households affected by HIV and AIDS – escape from poverty. However, it is important that these measures are not isolated but holistic, and linked to adequate education and training programmes to provide long-term perspectives to affected households, OVC and their guardians.

Many social protection schemes in developing countries, for instance health insurances, are co-sponsored by international organizations and the programmes are carried out by government institutions, church-based organizations (FBOs) and NGOs. It is important that such programmes are increasingly established and operated by the national governments in the long run. Programmes managed by NGOs and FBOs are often well organized but they commonly reach only a small portion of the entire population and therefore do not have a nation-wide impact. Insurance schemes and other means of assistance have to consider the level of prevalence in the region. Accordingly, an appropriate insurance scheme or other means of assistance must be found, corresponding to the needs and abilities of the population and the resources of the government and other institutions in place.

The aim of social protection schemes is to target vulnerable groups. Depending on their situation, PLHIV, affected households and orphans created by HIV and AIDS will therefore be among the beneficiaries. Social protection schemes focused only on these groups may have negative consequences, like the fear of unwanted disclosure. As a result the potential beneficiaries may decide to abstain from assistance. Exceptions are acceptable for very specific interventions, e.g. nutrition assistance programmes for PLHIV in connection with treatment with antiretroviral drugs. Measures specifically targeting affected households should consider the specific

circumstances of this kind of household: if a family member is HIV positive in an asymptomatic or symptomatic stage and has recurring sicknesses, or if the family has lost one or more family members. It is advisable to target households rather than individuals because HIV and AIDS usually affect the whole family.

Social protection schemes for PLHIV and households affected by HIV and AIDS – such as cash and food transfers – are important, but in order to assist PLHIV and affected families in developing sustainable coping strategies they should preferably be linked to wider programmes which go beyond ‘relief’ responses.

Labour-market measures, such as ‘food for work’ or ‘cash for work’ programmes might only be adequate for the family members of affected households or PLHIV who are in good health. Not to overstrain the immune system through hard work is of priority. Therefore, in the distribution of duties the physical ability of the person concerned must be taken into account. ‘Food for assets’ might be more appropriate if these measures are linked to the acquisition of skills which could prove beneficial for an affected household in the long run.

Social protection can also take the form of micro and area-based measures aimed at reducing risk. For example, in the field of agriculture, insurances can be offered or farming inputs subsidised. These are best combined with integrated approaches, including road construction and the creation of markets.

Children are hit hard by HIV and AIDS. Their parents are HIV positive, sick or have already died, and the children themselves might be HIV positive as well. They badly need support in terms of nutrition, health, and access to education and information for their development and future life. Some promising social protection measures are school feeding, food for education programmes, cash transfers (e.g. allowances for books, orphan allowances, foster-care allowances) and transfers in kind (school books, clothing, exemption from school and medical fees) as well as youth programmes and street-children initiatives. The prevention of marginalisation, exploitation and the abuse of orphans and vulnerable children must be of high priority; so too, reduction of the risks of transmissible infections/diseases. These children are vulnerable to exploitation and abuse even within their extended families. Governments, NGOs, FBOs and community-based groups must become their advocates and create awareness of child rights.

Even though the literature on social protection schemes with regard to HIV and AIDS is limited, the study discloses the positive effects of social grants, and also of food-related assistance and social insurances for people living with HIV, for orphans and for their guardians. More attention should be focused on these schemes, because they can have a wide effect. Of particular importance is the support of OVC in education, life-skills, nutrition and health, since this benefits all of society in the long run.

Social protection schemes should focus on the causes of vulnerability to HIV infection and the effects of HIV and AIDS. The measures need to consider and balance all aspects of comprehensive responses to HIV and AIDS: prevention, treatment, care and support, and factors that drive the epidemic, such as poverty, gender inequality, mobility and migration.

To conclude, even though a vast information base is available on the effects of HIV and AIDS on different sectors and various possible responses are documented, there is still a lack of studies and examples that offer more in-depth documentation of the context and circumstances in which the responses are successful, and point out the opportunities and challenges they encounter.

7 Annex

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