

Agrobiodiversity strategies

to combat food insecurity and HIV/AIDS impact

in rural Africa

Advancing grassroots responses for nutrition, health and sustainable livelihoods

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Population and Development Service
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This strategy paper has been developed in the framework of the FAO Population and Development Service (SDWP), under the support and lead of Marcela Villarreal (SDWP Chief). The paper aims at stimulating grassroots action for household food, nutrition and livelihood security in rural Africa, placing special emphasis on the evolving needs owing to the HIV/AIDS crisis. For the elaboration of the proposed strategies, the author carried out a specific FAO field mission to Uganda and Tanzania, as well as supplementary fieldwork in Ethiopia and Mali, in September-December 2001.

The ideas expressed in this paper do not necessarily reflect any official view of FAO. They can, and should be freely used and diffused, provided the source is acknowledged and the collective rights of African rural communities over their genetic resources and indigenous knowledge are fully respected.

The photographs were taken by the author in 2001 with the full consent of local people.

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Cover photo: Farmers displaying diverse local crops and foods in Iringa-Mvumi village, central Tanzania

TABLE OF CONTENTS

Acknowledgements	4
Abstract	6
Field leaflet	8
Glossary	9
1. Introduction	11
2. Priority issues and strategic action at the rural grassroots	20
3. Traditional, neglected and under-utilised crops	41
4. Agricultural diversification	65
5. Home gardens	79
6. Wild food plants	89
7. Medicinal plants	96
8. Community seed systems	106
9. Livestock and agropastoral systems	123
Conclusions	134
Epilogue	143
References	145
Detailed index	149
Lists of boxes, tables and acronyms	151
Field leaflet in the following languages: Français / Português	153

NOTE: For rapid appraisal of these agrobiodiversity strategies, it is recommended to start reading the following sections: abstract, field leaflet, conclusions and epilogue. Chapters 1-2 address the conceptual aspects. Chapters 3-9 examine the proposed strategic components, including field information and recommended actions.

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I wish to publicly apologise for the delayed arrival to Rukoma farmer field school, and possibly others, as it was not always possible to keep the schedule of field visits since farmers in every village would continue sharing their time and fascinating conversations, and we sometimes encountered rural roads in difficult conditions. I also wish to apologise for the villages and organisations I could not arrange for visit and fieldwork due to lack of time, but I thank their enthusiastic interest and their indulgence. In addition, I am indebted to about 70 people living with HIV/AIDS (members of the Busia AIDS Community Initiative) for waiting for some hours to be able to hold a meeting on my return to Busia town from a field trip. Their patience and vigour to share their concerns illustrate again the formidable issues we face and the need to urgently deploy adequate support responses.

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Josep A. Garí

ABSTRACT

In Sub-Saharan Africa, food insecurity and the HIV/AIDS crisis represent priority issues for agricultural and rural development. They are mutually aggravating phenomena that pose heavy and increasing pressures on the livelihoods and lives of poor rural people. In the first place, food insecurity and malnutrition continue distressing millions of rural people, urgently demanding more tangible and better targeted actions. In addition, the HIV/AIDS epidemic is undermining the labour and economic foundations of poor rural households, therefore aggravating their food insecurity, deepening their poverty, and limiting their coping capacities. The AIDS epidemic is also dislocating social reproduction systems, such as the transmission of indigenous and local knowledge around agriculture. Moreover, the absence of an ecological rationale in agricultural and rural development further erodes the prospects of sustainable agriculture and food production. Consequently, the agricultural sector needs to explore and deploy suitable and timely responses that genuinely combat food insecurity and the manifold impacts of HIV/AIDS in poor rural households, whilst stimulating a transition towards sustainable rural livelihoods. However, most existing agricultural development policies and programmes are inadequate to address these critical challenges. At this impasse, agrobiodiversity and the associated indigenous knowledge represent grassroots resources with potential in strengthening the entire agriculture-food-nutrition-health structure in poor rural communities.

On the basis of participatory field research conducted in different rural areas of Sub-Saharan Africa, this paper reveals that agrobiodiversity and the associated indigenous knowledge are relevant forces to combat food insecurity and the HIV/AIDS crisis. In particular, this paper proposes and examines the following strategic components: (i) traditional, neglected and under-utilised crops; (ii) agricultural diversification; (iii) home gardens; (iv) wild food plants; (v) medicinal plants; (vi) community seed systems; and (vii) livestock and agropastoral systems. The mobilisation and development of these agrobiodiversity components would expand the options, opportunities and means available at the rural grassroots level to improve nutrition, cope with labour constraints, safeguard the household economic security, and enhance sustainable agriculture.

The maintenance of agrobiodiversity resources and the transmission of indigenous knowledge are, however, under continuing neglect and erosion. Modern development processes have not only disregarded such agricultural assets, but have also disrupted their roles and potential in rural communities. HIV/AIDS further accelerates this tendency because this epidemic disrupts intergenerational relations and social reproduction systems. In this sense, the loss of agrobiodiversity and indigenous knowledge impairs the agricultural prospects of rural youth and children, undermining rural reconstruction and development in Africa. Consequently, efforts devoted to the

maintenance, promotion, use and improvement of agrobiodiversity and indigenous knowledge will empower rural people to combat malnutrition, to address the evolving circumstances owing to HIV/AIDS, and to craft sustainable livelihoods. That requires to simultaneously supporting agroecological approaches, gender equality and community mobilisation in the whole agricultural development process.

In essence, agrobiodiversity represents locally available and affordable resources with untapped potential in grassroots strategies for advancing food security and mitigating HIV/AIDS impact. In the first place, agrobiodiversity has a direct role in nutrition, which is crucial in the control of HIV infection and the alleviation of AIDS-related health problems. Therefore, the optimal use of local plant, crop and food resources offers inexpensive and effective options for diversifying the diets, improving nutrition and enhancing healthcare. Furthermore, the conservation and comprehensive use of agrobiodiversity can provide every household with broader and practical options to plan their agricultural activities according to their specific labour, economic and environmental constraints. In this sense, appropriate access to, and use of agrobiodiversity represent a suitable means to cope with labour scarcity, to design agricultural systems that are economically responsive, to manage environmental risks, to deal with land shortages, to support the roles of women in agriculture and nutrition, to explore income alternatives, and to incorporate marginal lands into food production. Finally, agrobiodiversity and indigenous knowledge are indispensable ingredients in agroecological approaches to agriculture. In particular, the proposed strategic components will provide rural people with greater capacity to enhance the social and ecological sustainability of agriculture, carrying out actions that increase the resilience of agroecosystems, conserve natural resources, support agricultural experimentation, build community seed security, foster *in situ* transmission of agricultural knowledge, and maintain the basis for rural reconstruction, among others.

In conclusion, this paper calls for agricultural policy and programme responses towards the mobilisation and development of the greatest agricultural assets of rural communities in Africa: agrobiodiversity and indigenous knowledge. The proposed strategies challenge the entire agricultural development sector: from crop research programmes to agriculture and food policies, and from rural development projects to agricultural extension services. They also renovate the action horizon of rural grassroots initiatives, such as farmer field schools, nutrition projects, local HIV/AIDS committees, and women's associations. Although biodiversity and indigenous knowledge alone are insufficient to eradicate food insecurity and the HIV/AIDS impact, they constitute a privileged basis to empower rural communities to confront their most pressing needs in nutrition, healthcare, and for sustainable livelihoods. These agrobiodiversity strategies, even if apparently simple and unpretentious, are more crucial in view of the intensification of poverty, social exclusion, environmental disruption, and the HIV/AIDS crisis throughout rural Africa.

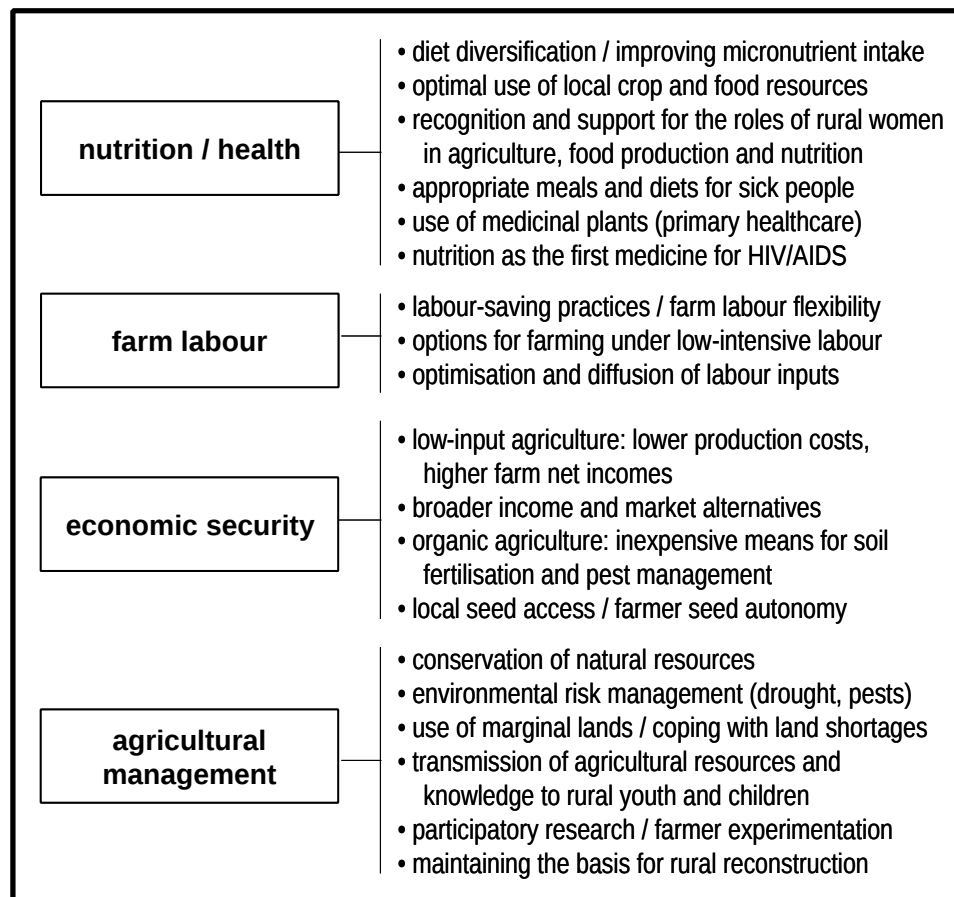
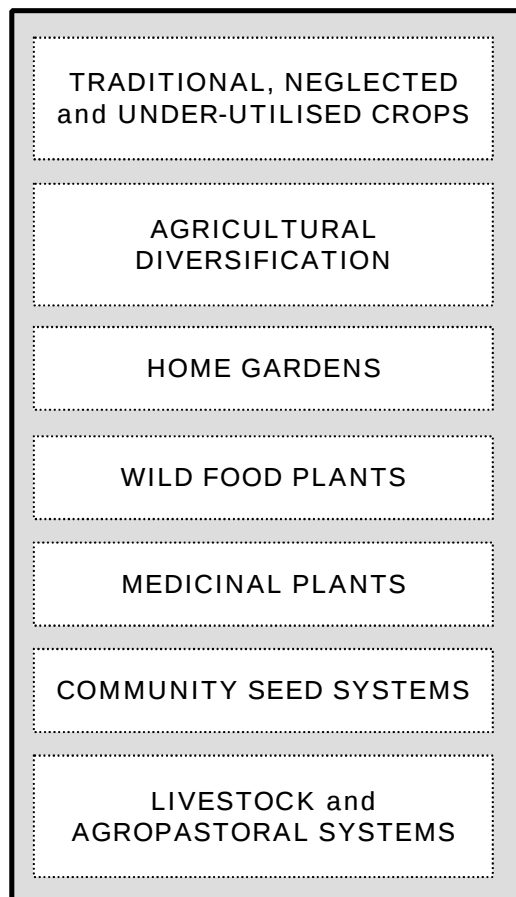


Agro-biodiversity strategies

to combat food insecurity and HIV/AIDS impact in rural Africa

English.1

strategic components



FIELD LEAFLET

objectives

-
- agroecological approaches
 - gender equality
 - community mobilisation

Source: Josep A. Garí / SDWP / FAO (2003)

Glossary

These are working definitions for the purpose of this paper. "AIDS" is often used as equivalent to "HIV/AIDS", rather denoting the whole health, human and development effects of this epidemic.

Food security. The state in which all people have an autonomous and regular access to food in sufficient amounts, under safe conditions, with the adequate nutritional quality, and in due regard for their legitimate cultural values and food preferences. In rural areas, local food security also entails sustainable agricultural and environmental means for food production as necessary factors for a genuine and enduring food security. -- *From box 2.*

HIV/AIDS. "Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome." It is a global epidemic disease that erupted and spread worldwide in the late 20th century, hitting hardest and most dramatically in Sub-Saharan Africa. HIV damages the human immune system and causes irreversible health deterioration. To present there is no effective vaccine to prevent the infection or health effects of this virus, but there are drug treatments that can slow down or stop the progression of the disease for some years. This epidemic has a devastating health, human and development impact, particularly among poor people and developing nations that cannot access the existing treatments due to poverty, economic inequality and legal barriers. In fact, HIV/AIDS can be considered the first disease of the globalisation process because the pattern of epidemic expansion and the scale of development impact reveal global inequalities. It is the only disease that has forced the creation of a specific United Nations agency. -- *Adapted from Barnett and Whiteside (2002) and Garí (2003).*

People living with HIV/AIDS. Persons that are infected with HIV.

AIDS impact. The health, socio-economic and development effects of the AIDS epidemic on people, households and communities.

AIDS affected households. Households that are affected by the AIDS impact in diverse ways: for instance, households that have members living with HIV/AIDS, households that have lost productive force due to AIDS, female-headed households due to HIV/AIDS, households that foster AIDS orphans, and orphan-headed households due to HIV/AIDS.

Agrobiodiversity. The different biological resources that sustain agriculture and food production, such as particularly crops, crop varieties, useful plants and farm animals.

Indigenous knowledge. The wealth of information, experiences, practices and wisdom that rural people and communities produce and reproduce locally, more typically in the domains of agriculture, the environment and the use of local resources.

Agroecology / agroecological approaches. The science and practice that provides ecological principles and socio-cultural perspectives to the design and management of sustainable agricultural systems. -- *Adapted from Altieri (1995).*

Labour stress. Failure of people or households to attend their essential tasks and responsibilities due to losses in labour force or increasing duties that require additional time and efforts. In rural societies, labour stress results from the inability of people and households to attend their basic farm, off-farm and domestic responsibilities, which impair their food security, livelihood and quality of life. AIDS is a major cause of labour stress due to the cumulative sickness and death of productive adults (which results in important labour losses) and the incessant need to divert time and efforts to care for the sick and AIDS orphans.

Economic security. The state in which people and households have financial capacity to attend their most basic needs, as well as ability to manage their productive and living activities in ways that safeguard their economic base.

Seed security. The state in which farmers have access to sufficient amounts of viable seed to conduct their farming practices, with due regard to the diversity of crop genetic resources that they need for food security and they prefer for cultural reasons. -- *From chapter 8.*

"Intercropping assists me very much."

- Robina Nabwire, widow farmer, household head, and chairwoman of "Enjala Siyita" Farmer Field School. Nabulamu village, Busia, Uganda, December 2001.

"Nutrition is the first medicine for HIV/AIDS."

- Florence Ayupo-Elimu, coordinator of Teso AIDS Project. Soroti, Uganda, November 2001.



A community nutrition leader displaying local foods:
"a balanced diet from our local environment"
(Agoriata village, eastern Uganda).