Garden-Based Learning for Improved Livelihoods and Nutrition Security of School Children in High HIV-Prevalence Areas in Southern Africa

WORKSHOP REPORT
PART I

Organized by the Food and Agriculture Organization of the United Nations (FAO) Regional Emergency Coordination Office for Southern Africa with technical collaboration of the Nutrition and Consumer Protection Division

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Facilitated by Douglas Magunda from the FAO Emergency Coordination Unit (ECU), Zimbabwe. Technical presentations by FAO technical and emergency staff, country delegates, and NGOs were followed by questions and comments and group discussions with plenary feedback (all presentations are available on the accompanying CD-Rom).

Attended by 54 delegates from seven countries: Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zambia, and Zimbabwe. Participants included ministry officials, nutritionists, agronomists, educationists, consultants, project managers, and programme assistants from:

- FAO headquarters in Rome (Nutrition and Consumer Protection Division and Equity, Gender and Rural Employment Division), the FAO Regional Emergency Coordination Office for Southern Africa (Johannesburg) and FAO country offices, including representatives of JFFLS projects;
- other UN agencies and development agencies (JICA, UNESCO, UNICEF, WFP and GTZ);
- government officials from ministries responsible for education, HIV and AIDS, food security, and agriculture; and
- NGOs working with school gardens and the environment.

Photo credits: John Weatherson (Swaziland), Stacia Nordin (Zimbabwe), Mel Futter (South Africa)
Drawings: Mel Futter (South Africa)

Foreword

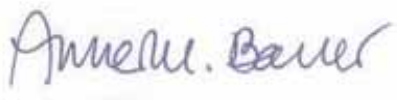
School gardening is not a new concept, but it is ready for a new image, new directions and new values. It is currently experiencing a revival in the southern African region, where many children have been orphaned by AIDS. School gardens have the potential to strengthen school children's knowledge and skills in food production and nutrition and to improve their nutrition security and livelihood prospects in the long term, both directly and through their influence on home gardens, home cooking and family understanding of nutrition needs. Junior Farmer Field and Life Schools (JFFLS) are also emerging as an effective tool in several countries to address the learning and livelihood needs of out-of-school youth as future farmers.

FAO's Emergency Operations and Rehabilitation Division (TCE) supports garden-based learning initiatives across southern Africa for improved livelihoods and nutrition security of children and youth in high HIV-prevalence areas in southern Africa. The Nutrition and Consumer Protection Division (AGN) provides policy guidance for school garden development and nutrition education in schools and produces high quality nutrition training and education materials, which are already widely used.

The need for a comprehensive cross-sectoral review of ongoing garden-based learning programmes with an emergency orientation in southern Africa has been recognized for a long time. To address this need, TCE and AGN joined hands in holding this workshop bringing together 54 professionals from agriculture and education ministries, non-governmental organizations (NGOs), bilateral and UN agencies, and FAO emergency and technical units from Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zambia and Zimbabwe.

Participants had an opportunity for the first time to take stock of diverse garden-based learning initiatives in the region, to review burning issues relating to the special needs of orphans and vulnerable children in the context of the HIV and AIDS crisis, and to distil lessons and recommendations of how children's and young people's learning, nutrition security and livelihoods can be addressed comprehensively and effectively in the future.

Many challenges remain. We believe that this workshop has moved the discussion forward and hope it will help and motivate practitioners to implement more focused and successful garden-based learning programmes.



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Acronyms and Abbreviations

AGN	Nutrition and Consumer Protection Division of FAO
AIDS	Acquired Immune Deficiency Syndrome
AREX	Agricultural Research and Extension (Zimbabwe)
ATA	Agriculture Teachers' Association (Swaziland)
CRS	Catholic Relief Services
CTDT	Community Technology Development Trust
EC	Emergency Coordinator
ECDC	Early Childhood Development Centres
ECU	Emergency Coordination Unit
ESW	Equity Gender and Rural Employment Division of FAO
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmers Field School
FGF	Food Gardens Foundation
FTFA	Food and Trees for Africa
GTZ	German Technical Cooperation
HIV	Human Immunodeficiency Virus
ICRAF	International Centre for Agroforestry
IEC	Information, Education and Communication
ILO	International Labour Organization
IPEC	International Programme for the Elimination of Child Labour
IT	Information Technology
JFFLS	Junior Farmer Field and Life Schools
JICA	Japanese International Cooperation Agency
KAPP	Knowledge, Attitude, Perceptions and Practices
MoA	Ministry of Agriculture
MoE	Ministry of Education
MoU	Memorandum of Understanding
NCP	Neighbourhood Care Points (Swaziland)
NGO	Non-Governmental Organisation
OVC	Orphans and Vulnerable Children
PACE	Participatory Agricultural Curriculum for the Environment
PRSP	Poverty Reduction Strategy Paper
RECOSA	Regional Emergency Coordination Office for Southern Africa
PTA	Parent-Teacher Association
RIACSO	Regional Interagency Coordination Support Office
RSDA	Rural Self-Help Development Association (Lesotho)
SABC	South Africa Broadcasting Corporation
SCOPE	Schools and Colleges Permaculture (Zimbabwe)
SIDA	Swedish International Development Agency
SPRINT	School Programme In Service for the Team
TCE	Emergency and Rehabilitation Division of FAO
TCEO	Emergency Operations Service of FAO
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	The United Nations International Children's Emergency Fund
WFP	United Nations World Food Programme
WVI	World Vision International

Introduction

In southern Africa chronic vulnerability and poverty, extreme climatic events - such as drought and flood, and economic and policy shocks increasingly threaten food security. Households which grow their own food are faced with difficult and unpredictable agricultural conditions and rising input prices. The situation is exacerbated by the impact of HIV and AIDS.

The largest group directly affected by HIV and AIDS is children between the ages of 12-17 and the number of orphans and vulnerable children (OVC) in the region is rapidly increasing. HIV and AIDS have profound socio-economic, psycho-social and physical effects on children. Parents' deaths can destroy their visions and hopes for the future and impede the passing down of essential knowledge and skills about agriculture and nutrition. Poor nutrition and limited nutrition and agricultural knowledge and skills lead to increased vulnerability to disease and poorer livelihood prospects. The breakdown of social and family safety nets has furthermore resulted in abuse, exploitation, and low self-esteem among affected children.

One response to this difficult situation is the promotion of garden-based learning in schools. The aim is to educate children about food production and natural resource management for good nutrition and improved life and livelihood prospects. Gardens also have the potential to supplement school feeding programmes. Revival or re-orientation of school gardens for these purposes however faces conceptual, practical, and social challenges, centring around the purpose of the school garden, its image, its links to good nutrition, agricultural approaches and resources, its relationship to the mainstream curriculum, and its perception in the community.

Garden-based learning has the potential of:

- increasing the relevance and quality of children's education by introducing them to food and nutrition-related knowledge and skills
- providing children with practical experience in food production and natural resource management
- introducing innovations and techniques that children can take home to their families and apply in their own household gardens and farms
- improving pupils' nutrition by supplementing school feeding programmes with fresh micronutrient and protein-rich products, and increasing children's nutrition knowledge and skills, to the benefit of the whole family
- through enhancing food and nutrition security and livelihood prospects, contributing to the mitigation of the health and social impacts of HIV and AIDS.

However, in the absence of clear national policy and operational guidelines, the implementation of garden-based learning faces many issues. For example there are:

- confused aims, especially reconciliation of learning objectives with food production and income generation
- a widespread negative image

- lack of perception of links between food, nutrition and health in garden planning and use
- lack of awareness about the relevance of garden projects to HIV and AIDS mitigation
- lack of sustainability because of weak community support and insufficient integration into the curriculum
- inadequate monitoring and evaluation.

To discuss garden-based learning interventions further, and in an attempt to move forward in addressing some of the burning issues, a workshop was organized in Zimbabwe for stakeholders. Representatives were invited to the workshop from various sectors and organizations in southern Africa where FAO is supporting school garden activities under its emergency and rehabilitation programme. In preparation for the event, national experts were commissioned to prepare reviews of policy and practice in relation to school gardens in formal and non-formal education for each country. The papers were synthesized and presented at the workshop.[1]

[1] For the full text of these reports see Part II: *Synthesis of Experiences of Garden-Based Learning for School-Age Children and Country Reports*.

I. Workshop Organization and Objectives

The workshop was structured around plenary presentations alternating with group work, to allow for sharing experience, concerns and opinions, building a coherent and inclusive vision of the concept and purpose of school gardens, and marking out ways forward.

Presentation by Margaret McEwan, FAO Senior Regional Emergency Coordinator (EC) for Southern Africa, Regional Inter-agency Coordination and Support Office (RIACSO)

The convergence of so many crises - drought, flooding, cyclones, and climate change - all taking place in the context of high rates of HIV and AIDS with its attendant physical, social, economic and psychological effects not only presents problems of immediate humanitarian concern, but often paralyses normal development process.

This means that practitioners must address immediate and urgent needs while at the same time working toward sustainable development. Long-term development strategies need to be reconciled with emergency programmes and capacity gaps identified for both.

During the workshop it was hoped that participants would call upon their many and varied experiences to develop a common vision, build bridges between theory and practice, and outline steps for immediate action. It is important to note that best practices identified from the review of garden activities are in continuous evolution.

The aims of the workshop were therefore to:

- review ongoing garden-based learning and nutrition education in primary and secondary schools, as well as experiences from JFFLS, and identify lessons learnt in the context of high HIV prevalence

Can school gardens become as *de rigueur* as sports fields?


A flourishing garden at Mahhoshe Primary School, Swaziland


What is the best age to target for gardens?

countries: Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zambia and Zimbabwe
- draw on the regional exchange of experiences, identify good practices, and develop recommendations and operational guidelines for national school garden strategies including what might constitute reasonable short and long term interventions in crisis situations and how to link into existing policies and strategies (e.g. Poverty Reduction Strategy Papers (PRSPs), National Plans of Action for OVC)
- identify capacity building needs for national school garden programmes and prepare draft National Action Plans, which can be more effectively achieved through regional collaboration
- propose modalities for networking and regular knowledge exchange on garden-based learning in the southern African region.

The expected outputs were to:
- enhance understanding and create a common vision among stakeholders across the region as to the necessary components and processes for successful national school garden programmes
- outline operational guidelines for national stakeholder groups for the effective implementation of school garden programmes
- draft National Action Plans developed by national stakeholder groups to enhance the planning and implementation of national school garden programmes
- propose modalities for regular knowledge exchange in the region.

II. Context and Approach

Setting the Context: The Impact of HIV and AIDS on Children and their Future Livelihoods

Presentation by Carol Djeddah, Senior Programme Officer, HIV/AIDS Programme and JFFLS Coordinator, Equity Gender and Rural Employment Division (ESW), FAO, Rome

In the most affected eleven countries in sub-Saharan Africa, 15% of children in 2003 are orphans (from whatever cause), the largest group being 12-17 years of age. As a result of HIV and AIDS, the available agricultural labour force has decreased drastically, exacerbating food shortages. Manpower losses in the civil service have also rendered administration more difficult. The crisis has exacerbated gender inequities. More households are impoverished. There is a loss of opportunity for adults to pass down to children their traditional cultural, health, and agricultural knowledge (e.g. growing and preparing food). Thus the future livelihoods of children are endangered, while at the same time social and family safety nets are breaking down, resulting in abuse, exploitation, and low self-esteem in children, together with malnutrition.

FAO Concept and Approach to School Gardening

Presentation by Ellen Muehlhoff, Senior Officer, AGN, FAO, Rome

School gardens must put education first and ensure that children are the primary direct beneficiaries. Good nutrition and eating well can make a large impact on children's health and ability to learn and contribute to sustainable food security in the long term. Widespread malnutrition, including deficiencies in micronutrients, among school-age children are due to poor food consumption and imbalanced diets, including insufficient fruits, vegetables, beans, fish, poultry and meat, as well as poor knowledge about good nutrition and healthy eating practices. HIV and AIDS further exacerbate an already difficult food security situation.

Most school gardens currently focus on food production for generating income. There is, therefore, a need to shift the vision of school gardens toward promoting learning. That means linking the garden educationally to school meals, good nutrition, the natural environment, agriculture and food production as a means of making a living, and lifelong healthy eating habits.

FAO Guiding Principles for School Gardens

- *Children are the primary direct beneficiaries.*
- *The main purpose of school gardens is learning for children.*
- *School gardens are not intended to provide commodities for school feeding.*
- *School gardens are not an exit strategy for school feeding.*
- *Schools use locally-adapted crops, including indigenous crops.*
- *Poultry and other small animals can be raised in school gardens.*
- *School gardens use organic gardening techniques.*
- *NO dangerous chemicals should be used in schools!*

Learning should be promoted not only within the classroom but also through the wider curriculum. This can be done by: a) creating a supportive school environment (school meals, healthy drinks and snacks, good sanitation, and clean water), and b) involving families and the community in supporting gardening for a healthy diet.

School-linked food production could be an alternative for producing food for school meals, e.g. community food production or "home-grown school feeding programmes", where farmers are paid to produce food for their local schools.[2]

[2] To read more about this topic refer to the FAO publication *Setting Up and Running a School Garden* available on FAO's website: http://www.fao.org/docrep/009/a0218e/a0218e00.htm.

Group Work

Group Feedback on the Purpose and Objectives of School Gardens

The groups identified the existing purposes and objectives of school gardens as the following:

- **fundraising**, with specific reference to raising funds for sports and school fees for OVC
- **protecting children's future livelihoods**
- **enhancing children's food security**, having a positive impact on children's current nutritional status through the garden's contribution to school feeding schemes or by children taking home vegetables
- **skills transfer**, awareness of permaculture, adding a practical component to the school agricultural curriculum, combining theory and practice, children transferring skills to the community
- **learning about good nutrition**, incorporating nutrition into the agricultural syllabus, increasing knowledge of dietary diversity and ways to ensure food security
- **gaining business skills**, seeing income-generation in practice
- **environmental awareness**, integrating environmental issues into agriculture, learning permaculture
- **life skills**, in particular a strong work ethic
- **food production**

Group Feedback on the FAO Concept and Approach to School Gardens

Organic Agriculture: Some Considerations

- *Organic approaches are difficult to implement in practice when schools are set on less fertile upland soil.*
- *Some pests cannot be removed by integrated pest management alone.*
- *BUT… Organic approaches require less expensive inputs.*
- *AND…Organic approaches are appropriate because school gardens are not meant to promote intensive agriculture.*
- *If the school's approach is out of line with that of the community, pupils may need strong educational support to act as "organic missionaries".*
- *Orphans in Soweto in South Africa have pioneered successful organic gardening using household garbage (waste vegetative matter) for compost.*
- *BUT… Household waste for compost works best in urban settings (or in areas where children do not have to walk far to school).*
- *AND… Some parents will not let their children carry household waste to school.*

The groups made the following comments on a few of the FAO guiding principles:

Children are the primary direct beneficiaries

- Take-home produce can be a good incentive.
- The main target group should be 9-13 year olds, as they are most affected by HIV and AIDS.
- More attention needs to be paid to the teachers, who may also need incentives in the form of foodstuffs, cash, or learning opportunities.
- Knowledge should flow in both directions between the community and the school.

The main purpose of school gardens is learning for children

- Agriculture, nutrition, livelihood skills, life skills, and environmental management should be explicit in the principles.
- Agriculture should be linked with nutrition education.
- Food processing and preservation should be included in the learning.

School gardens use organic gardening techniques

- Are organic approaches sustainable?
- Exploring various production techniques may offer opportunities for experimentation and research.

NO dangerous chemicals should be used in schools!

- They may be important for vulnerable groups, but there may be cases when use of chemicals should be allowed, provided children are trained properly in their safe use.

"This is how we think about diet: we just consume what's there; we are not worried about nutrition. We have to think not just about food, but about GOOD food."

Challenges Identified by Groups

- Practical challenges for school gardens are: lack of water, lack of inputs (fencing, tools, seeds, watering cans), need for soil improvement, problem of caring for gardens during school breaks (suggestion that parents and children assigned vacation duties).
- The school gardening concept needs to be incorporated into national policies.
- There is a danger of concentrating more on production than on garden-based learning: teachers need to understand and promote the concept of the garden as a learning area.
- Teachers may lack skills and resources to make a successful garden, and there is a risk this will reflect badly on the teacher (and the process), therefore teachers need training; they may be encouraged to have their own demonstration plots at home; teachers should be selected who are enthusiastic about the gardening project; projects also need the support of the head teacher.
- Training should target large numbers of teachers because they are overburdened and there is a high turnover rate, with many leaving for other countries and organizations.
- Teachers need incentives.
- If school gardens are not a part of the regular curriculum, teachers need supporting materials.
- Schools in general are overburdened; partnering with NGOs or other institutions in gardens may help.
- Extension workers are also generally overburdened, and like teachers would need incentives, supporting materials, and possibly training in teaching.

- The ethical question of child labour may arise; however International Labour Organization (ILO) guidelines suggest that working in school gardens is not a real problem (see ILO guidelines on Child Labour on page 23).
- Sharing of school garden experiences is needed.
- Additional problems mentioned were: creating a positive image of school gardens, theft, sustainability, over-dependence on government at schools, and the need to motivate children about good nutrition.

Opportunities Identified by Groups

Every challenge presents an opportunity, and the main ones identified by the groups were:

- **Increase Community Involvement with Schools**. Families and communities must be involved in the design of the project from its inception; they can be viewed as resources for school garden projects. Sectors of the community that might also be targeted for involvement are commercial farmers, NGOs, and the corporate sector.

- **Enhance School Feeding**. Gardens can complement school feeding programmes, while still focusing on learning. But in that case they need to have separate school feeding schemes or strong school-linked food production systems in place, such as local farmers being paid to grow crops for school feeding, to ensure that the school garden can be used primarily for learning purposes. Schools may also be able to absorb the cost of a full-time gardener.

- **Enhance School Curriculum**. Provision of good teaching materials for gardens and promotion of garden-based learning concepts can help enhance the school curriculum.

- **Learn New Technologies**. School gardens provide opportunities for introducing new technologies to communities, for example drip irrigation.

III. Country Experiences

Regional Synthesis of Experiences and Lessons from School Garden Projects, Based on Country Papers from Mozambique, Lesotho, Swaziland and Zimbabwe

Presentation by Jane Sherman, FAO Education Consultant

The country papers reiterate the threats from adverse climatic and agricultural conditions and HIV and AIDS to food security, children's nutritional status, and livelihood possibilities. The potential role of school gardens in alleviating this crisis is not widely recognized in government policy. Schools are encouraged to produce food for children's consumption and for income generation, but rarely with a nutritional emphasis. They produce mostly vegetables, some livestock, and a little fruit and there is some environmental planting (e.g. trees, living fences). The school garden suffers traditionally from a negative image among children, teachers, and the community and there is not

much visible involvement of or support from families and communities. Most gardens are extra-curricular, except where they are the site for practical work in the agriculture curriculum. Their learning scope seldom extends to environmental science, nutrition, or business studies. At the informal level, the links between gardening, healthy eating and a healthy environment are seldom perceived by teachers, schools, or learners. Institutionally, many NGOs and other organizations are involved in school garden projects. The most active government ministries (education and agriculture) face difficulties with collaboration, funding, and overburdened services. On the practical front, water is crucial and garden security very important. The reports all noted a pervasive need for an easily accessible platform for information exchange, learning, and sharing experiences.

Experiences and Lessons from South Africa

Presentation by Hilda Pheto, Executive Director, Food Gardens Foundation (FGF), South Africa

FGF's vision is the empowerment of people to overcome hunger, malnutrition, and the effects of disease. FGF maintains that schools need food gardens because children are hungry; schools offer an accessible and protected environment and schools are a good platform to address nutritional needs. Educationally, too, it is important to influence children while they are young. The Foundation's school garden programme works on an opt-in basis, offering support and technical assistance for establishing gardens, particularly to schools that lack expertise and have "unyielding" gardens. The Foundation often works with several schools in the same district to encourage competitiveness and sharing of experiences. Garden management is left to the school, but generally children adopt their own patches. The programme builds environmental understanding through art, stage plays, and songs, and encourages fun, enjoyment, and motivation ("children must feel wonderful") through playing, singing, celebration, games, food festivals, and distribution of certificates. Garden learning has a strong "life orientation" and teachers make curriculum links to a range of academic subjects. Crucial to the success of the programme are the involvement of all stakeholders (children, educators, government, parents) and the identification of "champions" with a passionate commitment to garden development.

Examples of Community Involvement

- The Lesotho Rural Self-Help Development Association creates links by working for sustainable agriculture and food security both in schools and the community.
- The new Zimbabwe FAO/UNICEF/JICA project has conducted a fully participatory situation analysis.
- Participatory planning with school committees including community members as well as pupils and teachers is one of the planks of Malawi's sustainability strategy for their School Food and Nutrition Programme.

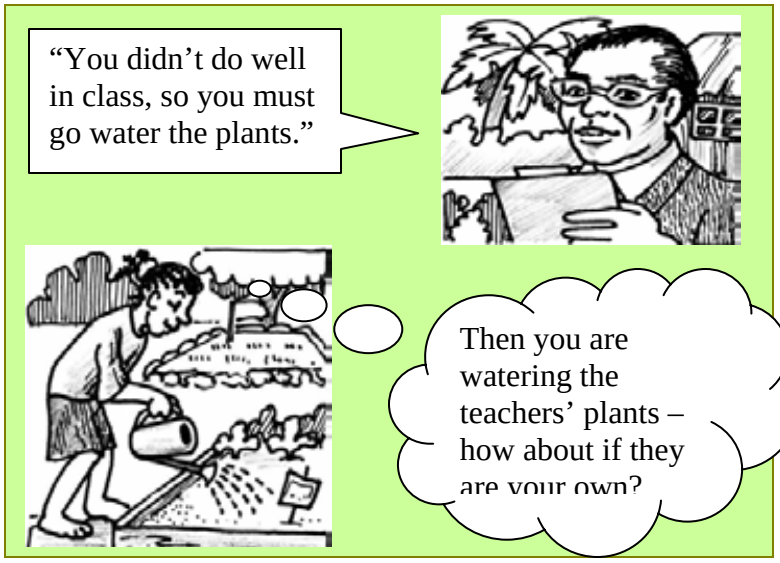
Presentation by Joanne Rolt, Programme Manager, Food and Trees for Africa (FTFA). This presentation was accompanied by a short film showing the work of the Foundation and the EduPlant project.

FTFA promotes tree-planting, permaculture or natural food gardens, and urban forestry. One of its programmes is the EduPlant project which focuses on alleviating malnutrition in children, environmental education, and sustainable natural resource management through the development of school food gardens. This programme raises awareness, organizes workshops for educators, produces education materials, and runs an annual competition in which learners demonstrate and promote their school garden and school greening projects. The project began in 1994 and has been involved in launching and supporting 1,500 permaculture gardens, with emphasis on recycling and integrating natural resources. It helps to feed undernourished families, use water and soil more sustainably, generate income for schools, and run community outreach projects. This initiative is endorsed by the Ministry of Education, which has stipulated that every school must have a garden. EduPlant is sponsored by the Woolworths Trust, Department of Agriculture Land Care Directorate, Department of Water Affairs and Forestry, and the national broadcaster South African Broadcasting Corporation (SABC) Education, but also relies on other sponsors to fund individual schools and some of its programme. FTFA supports between 20 and 40 schools to develop food gardens annually.

Experiences and Lessons from Zimbabwe

Presentation by Fadzai Mukonoweshuro, HIV/AIDS Officer, FAO Zimbabwe, on the project "Promotion of diversified livelihoods and healthy living through strengthening garden-based learning"

The current Zimbabwe agriculture curriculum is prescriptive, centralized, and exam-oriented, with practice neglected in favour of theory and little room for life skills. Agricultural extension officers generally play no major role in school gardens. There is little educational material for gardens and resources are limited. Other challenges are: lack of interest and motivation in schools, lack of enthusiasm for the concept of Education with Production, no perceived links between nutrition and gardening, little emphasis on food processing and exposure to new foods, water shortages and lack of inputs, and the need for a platform for sharing experiences.



An FAO project "Promotion of Diversified Livelihoods and Healthy Living through Strengthening Garden-Based Learning" (October 2006 through October 2007) involving

District AIDS Committees, Agricultural Research and Extension (AREX), and Environmental Health Officers was mounted in ten secondary schools in Chiredzi and Chipinge Districts. The project supplied agricultural inputs and developed a school garden guide for teachers covering HIV and nutrition. Some positive results were that schools started to share garden produce, there was some record-keeping, and school interest in gardening was raised. Some of the challenges that remained were that the time allocated for practical work was too short, schools still wanted to be sure that they could raise money with the garden, and the guide needed to be streamlined as it gave too much detailed agricultural advice. Also, inputs and activities needed to be adapted to each school's differing needs, guidance was required on the use of herbs for medicinal and culinary use, and gaps in the curriculum had to be addressed.

A new project for 50 primary schools organized by the Ministry of Education in collaboration with FAO, the United Nations International Children's Emergency Fund (UNICEF), and the Japanese International Cooperation Agency (JICA) has been initiated. The project aims to bring hands-on experience and a life-skills element into the environmental science curriculum and enlarge the dimension of community collaboration by carrying out fully participatory situation analysis and action planning.

Experiences and Lessons from Lesotho

Presentation by T.A. Nkholise, Manager, School Self-Reliance and Feeding Unit, Ministry of Education, Lesotho

The Lesotho school curriculum includes agriculture at both the basic and secondary levels. School feeding is supported in some schools by the United Nations World Food Programme (WFP) and in others by the Government and the World Bank, and there are take-home rations for OVC. The Ministry of Education and Training has developed the School Reliance and Feeding Unit to promote greater school-based self-reliance in food production, diversification of student nutrition, and hands-on learning. The specific aim is to improve the health and nutrition status of primary school children through a) creating a sustainable school lunch programme, b) health education, clean water, and sanitation, and c) training in self-reliance. The way forward for school gardens is to study the situation, formulate policy, and develop cooperation with suitable partners.

Presentation by Musi Selebalo, Agricultural Officer, Rural Self-Help Development Association (RSDA)

The RSDA in Lesotho, sponsored by the Swedish International Development Agency (SIDA) and others, helps to eradicate hunger among the Basotho people by assisting farmers and community organizations and supporting self-help groups. A current HIV and AIDS-related project is Secure the Child which aims to establish sustainable food safety nets for OVC in and out of school by developing gardens in the worst-affected districts. In consultation with village authorities, the RSDA have carried out training in permaculture and nutrition education, conducted demonstrations of key-hole gardens, double-digging, Peace Garden plots, and raising dual-purpose chickens. Their school programme focuses on sustainable agriculture and dissemination of information about

HIV and AIDS. The approach involves meeting stakeholders, training two lead teachers per school, and linking the school with other service providers.

Experience and Lessons from Malawi

Presentation by Stacia Nordin, School Health and Nutrition Advisor, German Technical Cooperation (GTZ)/Ministry of Education, Malawi

It is estimated that 92% of Malawian schools could not at present continue their school feeding programme if donors pulled out. A national working group representing the Ministry of Education, communities and schools, with the assistance of GTZ, has begun to establish a food and nutrition programme in all primary schools which aims at greater self-reliance and sustainability.

The strategy involves:

- developing school food gardens on permaculture principles
- working within the ministry budget, without external funding
- a participatory approach, soliciting rather than imposing ideas
- ensuring commitment from the community and the school
- ensuring understanding by adapting to the pace of the participants
- using locally available resources
- flexibility in response to the different situation of every school
- coordination between ministry initiatives.

School committees are set up according to a formula which includes pupils, teachers and community members. School-based permaculture facilitators (unpaid) are selected on the basis of a job description drawn up by the national working group and trained to lead the implementation. A resource assessment is carried out and the schools plan how to work within their existing resources (no inputs are provided). The permaculture philosophy encourages a holistic view of soil, waste, water, and plants with an emphasis on recycling, for example "thinking beyond boreholes" by re-cycling waste water. Children do practical work for an hour a week. The national working group meets quarterly and acts as mentors and advisers, while the development partners provide technical advice and guidance.

Discussion following Country Reports

Discussion centred on the importance of learning from experience and sharing experiences. How could the various experiences (small/large projects, classes/groups, different environments) be balanced? At policy level, how responsive were ministries to

pilot projects and what were the challenges in scaling up initiatives? How could the responsible ministries coordinate for the welfare of the children (for example OVC are often the charge of the Ministry of Social Affairs whose main focus is not education).

It was suggested that research institutions be involved more often so that their findings might filter into curriculum development and policy. The impact of high-quality documentary films and pictures should also be recognized.

At the practical level, a participant reported on experiments with water harvesting. Standard roof-water tanks made of locally available materials (stones and sand) provided water during the rainy seasons but the supply did not last through the dry period.

IV. Views from all Sides: Looking at Gardens by Sector

To get a lateral perspective on the issues, the workshop divided into four groups to discuss sectoral concerns, with each group responding to a set of questions. Below are the responses.

Representatives of Governments

Q: *What is the policy environment for school feeding, income generation for schools, garden-based learning and OVC?*
A: Different institutional frameworks exist in each country, posing coordination challenges. Most governments support school feeding and income generation as the principal garden aims; garden-based learning does not feature strongly.

Q: *What steps are needed to increase awareness and discussion to encourage policy, strategy and programme development?*
A: Existing policies should be disseminated, inter-sectoral coordination should be improved, and budget allocations need to be increased.

Comment from the floor: Guidelines are needed on using school gardens for income generation.

Q: *What capacity-building is needed?*
A: At supervisory level capacity-building is needed in planning and monitoring and evaluation. At school/community level there is a need for awareness-raising of stakeholders and training of teachers in life skills, business management, technical skills, and planning.

FAO Emergency Coordinators

Q: *What are the guiding principles for appropriate and relevant short-term projects in high HIV prevalence and disaster-prone areas?*

A: Allow time for planning. Build on what is there. Investigate and improve partner capacity. Train teachers and extension service workers. Start materials development and training early. Include preservation and processing as well as production.

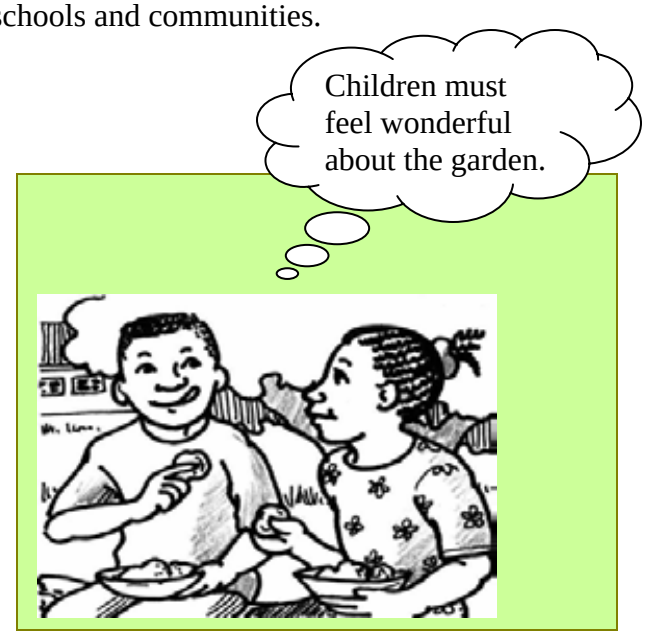
Q: *What pre-conditions are necessary?*
A: Funding, stakeholder commitment, and agreement on implementation strategies. Clarity on how learning, income, school feeding, and nutritional objectives dovetail.

Q: *What minimum capacities and inputs are required?*
A: A capable school garden manager, motivated teachers, implements and seeds, resource materials, and mechanisms to motivate teachers (e.g. motorbikes, boots).

Q: *What partnerships are needed?*
A: UN, ministries, agriculture teacher training colleges, and the corporate world.

Q: *What capacity is needed at different levels?*
A: Regional/international: backstopping team, monitoring and evaluation, resources for training, and capacity-building. National: clear policy; agreement on how to run the project. District: implementation capacity in the schools and communities.

NGOs and consultants



Q: *What are the best practices in planning garden-based learning activities?*
A: Follow the proper processes of project planning: clarify vision, negotiate with funders, consult all stakeholders, plan and clarify roles, and plan exit strategy. Spend time involving funding agencies and get a Memorandum of Understanding (MoU) signed publicly in the presence of the community so that it is not forgotten.

Q: *What are the best practices in management of garden-based learning activities?*
A: Use local resources, exploit existing structures. Aim for multi-stakeholder committees for overall garden policy and direct management of garden work by children and teachers, advised by specialist garden teachers. Good models are the Schools and Colleges Permaculture (SCOPE) committees which include teachers, parents, pupils, gardeners, and local leaders and the teacher group meetings in the Zambian SPRINT programme (School Programme In Service for the Team).

Q: *What are some best practices in implementing garden-based learning activities?*
A: Bring in fun and motivation (e.g. through games, competitions). Monitor the programme. To ensure ownership: a good model is JFFLS, where the students make decisions.

Q: *What technologies and practices can help to mitigate the effects of HIV and AIDS?*
A: Garden work can be occupational therapy. Organic gardening promotes food safety and health. Practical life skills can enhance children's self-esteem. Awareness and practice of good nutrition builds a healthier future. Gender issues need more attention.

Nutritionists

Q: *What questions should be asked to ensure that garden-based learning addresses nutrition problems and deficiencies?*
A: The questions to be asked are:
- What do we eat, and why? (Identify dietary practices, beliefs and attitudes.)
- What is the gap? (Identify the foods and nutrients needed to improve the diet.)
- What do we grow? Are our gardens responding to the gaps? Are we using local foods?
- How do we cook? How do we preserve foods? (Ensure that food value is conserved and the dishes are acceptable and delicious.)
- Are we training children to grow and prepare these foods and do they understand why?
- What local capacities and skills can support our gardening programme?

Q: *What nutrition knowledge, skills, and behaviours should be promoted?*
A: This is what should be promoted:
- the concept of a balanced and diverse diet, including the basic nutrients needed and how to obtain them
- locally-available nutritious foods should be promoted and traditional African dishes
- the processes of planning, producing, preparing, processing, and presenting food and good food hygiene
- the relationship between eating and caring - social and cultural aspects, and lifecycle needs.

Q: *What partnerships are needed?*
A: Partnerships are needed between schools, communities, local organizations, government ministries and their extension workers, and external development partners.

Field Trip

Workshop participants visited two school gardens in Murehwa District.

The Beta Primary School garden is owned and run by the school with drip irrigation equipment provided by Catholic Relief Services (CRS). Participants felt that the children were not learning much from this garden project. Theory and practice should be better integrated and the teacher needs more technical support, but the school was to be commended for starting the project.

The second school, Zorizozo Primary, has a community garden linked to the school for the benefit of orphans and vulnerable children. The beneficiary children are encouraged to work in the garden in their spare time. The garden's objectives - learning and income generation - were clear and the community appeared receptive to working with the school. Workshop participants agreed that this garden appeared more successful, that children showed greater ownership of the project, and there appeared to be potential to expand using a wider range of crops.

Q: *What capacity is needed?*
A: Capacity is not only knowledge and skills (technical, management, and coordination) but also changes in attitudes to foods, eating practices, and ideas of food status.

V. Garden-Based Learning and the Curriculum

Junior Farmer Field and Life Schools

Presentation by Carol Djeddah, Senior Programme Officer, HIV/AIDS Programme and JFFLS Coordinator, ESW, FAO, Rome

The JFFLS aim to empower children aged 12 to 17, improve their livelihood prospects, and ensure their long-term food security by improving nutrition, agricultural knowledge, and life skills and building self-esteem and gender equality. JFFLS works in partnership with WFP-supported school feeding and UNICEF support in child protection and training in life skills. Facilitators are community volunteers, assisted by teachers and agricultural extension workers, and (most recently) by JFFLS graduates. The new JFFLS curriculum has three pillars:

- *The first pillar* follows the agricultural cycle. The garden is seen as a place for experiential learning which not only introduces children to food security and nutrition but goes beyond in exposing them to complexity. Crops grown are staple foods, long-term crops, vegetables, legumes - the mix of foods necessary for a good diet, and indigenous medicinal plants. The different crop growth cycles are used to represent the need for short term, medium term, and long term aims and planning in one's own life.

T A L U L A R

Teaching **a**nd **L**earning **U**sing **L**ocally **A**vailable **R**esources

- acronym from Malawi

- *The second pillar* introduces special agricultural topics and practices related to conservation agriculture and the protection of the natural environment. For example, integrated pest management, intercropping, and labour-saving practices are taught.

- *The third pillar* focuses on life skills and is planned around a number of themes such as planning, growing up healthy, diversity, protection, water for life, care and loss, and entrepreneurship. Connections are made between the agricultural and human life cycles (e.g. both plants and people need to "grow up healthy" and "protect themselves"). Such thematic links enable facilitators and students to personalise messages (such as protecting oneself against HIV) in an acceptable and understandable way. Life skills are reinforced through empowerment and cultural activities.

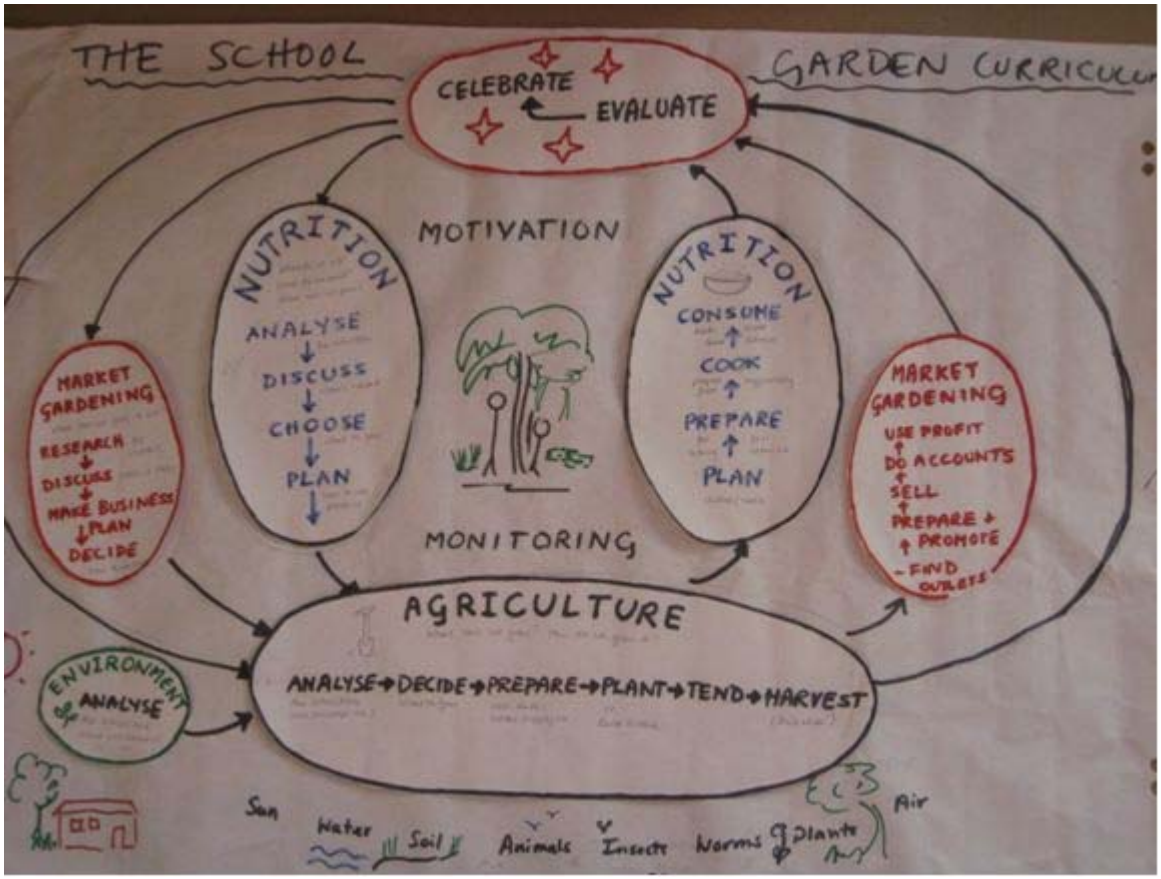
Bridging Theory and Practice: Integrating Garden-Based Learning into the Curriculum

Presentation by Jane Sherman, FAO Education Consultant

Before integrating garden-based learning we must know what garden-based learning is. A model of a "garden curriculum" was presented. In line with the principles of skills learning, work-related training, social learning theory, and learner-centred approaches, this curriculum:

- is based on action rather than a topic structure
- incorporates nutrition education and business skills as well as agriculture and environmental issues
- is structured on cyclical learning sequences
- incorporates motivation and celebration as well as monitoring and evaluation
- builds in learner command of the process, including managing, record-keeping, finding out, communicating, passing on learning, and enjoyment.

It was suggested that a "garden curriculum" had an integrity and significance which could not be handled by sporadic diffusion through the curriculum, and that time needed to be set aside not only to ensure that agricultural practices were well learned but also to allow for the entry of nutritional decision-making, planning, food preparation, and consumption into the cycle of garden activities.



Plenary Discussion

How can practitioners improve the curriculum model and integrate it into existing school curricula?

Main proposals

1. Begin by reviewing existing curricula in order to learn from others.
2. Put OVC at the centre of the picture, with emphasis on adapting to stress, change, disease, poverty, etc.
3. Involve all the relevant institutions, including health and environment ministries and departments responsible for OVC and nutrition.
4. Recognize that a "garden curriculum" is wider than an "agriculture curriculum".
5. Introduce both nutrition and agriculture at an early age.
6. Base the curriculum on practical actions in nutrition, agriculture, and marketing.
7. Link garden-based learning to existing curriculum provisions but maintain its coherence.
8. Extend curriculum provision to pre-service and in-service teacher education.
9. Ensure that developing a school garden is an owned process, with full consultation with children, teachers, and community.
10. Make garden work interesting, varied, and rewarding.

VI. Difficult and Emerging Issues

The following issues were identified by workshop participants as needing more thought and attention:

1. The specific needs of OVC and the HIV and AIDS crisis.
2. How research institutions can be more involved and influence policy.
3. The power of documentary films for promoting ideas and practices.
4. Tackling problems in the classroom which children will encounter in society (e.g. gender roles, agricultural practices, nutritional concepts), as better training for life and livelihoods.
5. The concept of education and training as action by the learner rather than as information delivery.
6. The difficulties NGOs face in getting response and collaboration from governments.
7. Nutrition, nutrition education, and their link with school gardens, for example:
    - good nutrition as a main aim in food production, garden planning, and school meals
    - practical nutrition education as an essential element in the curriculum
    - both nutrition and nutrition education integrally linked to the school garden, through the processes of planning, processing, preserving, and presenting food
    - nutritionists and health ministries collaborating in projects
    - training of all participants in active nutrition education.

There were also questions that remained unresolved and which need further discussion. These were:

1. What happens to school garden produce? What happens when children take it home – does it genuinely enhance the child's diet?
2. How do we turn around the perception of the garden as a place of punishment?
3. What can motivate a teacher? How can an incentive be distinguished from a bribe?
4. How can schools compensate for loss of food production and school income if they decide to use the school garden mainly for learning?
5. How can schools function as a focal point for short-term emergency interventions?
6. How do we reconcile short-term emergency interventions with long-term development programmes? How can such interventions provide building blocks for development?
7. How can different ministries, with different mandates related to gardens, coordinate their actions? How can ministries be more responsive to pilot projects and what can be done to help with scaling up?
8. What are the priorities in the cluster of needs (food security, education, livelihood needs, and psycho-social needs)?

VII. Conclusions, Recommendations, and Next Steps

Current Situation

In analysing the conceptual foundations and current state of school gardens in the region, the workshop participants discovered the following:

Purposes

- The purpose or function of school gardens are currently mainly income generation and food production. Good nutrition and education have lower priorities, except for education in agriculture.
- The potential role of school gardens in school feeding is often salient in government

ILO Guidelines on Child Labour

Acceptable forms of children's work are non-intensive activities for short periods every day that do not prevent children from attending school. Activities could include land preparation that does not involve heavy machines that are too big for children, planting and weeding with appropriately sized cutting and sharp tools, watering that does not involve loads that are so heavy they may cause musculoskeletal disorders, harvesting, feeding animals, bringing animals to pasture, shearing, collecting eggs, and sweeping.

The worst forms of child labour require urgent action for elimination and include tasks that are likely to harm the health of children, such as strenuous work that causes musculoskeletal disorders from repetitive bending, stooping, and adopting awkward and uncomfortable postures. These lead to problems with tendons and muscles and backache. Repetitive carrying of heavy loads is debilitating. Cutting the produce from trees by climbing or stretching and using inappropriate cutting tools puts a lot of strain on the musculoskeletal system. Using knives, scythes, machetes and sickles can result in cuts and sometimes severed body parts.

Source: ILO. *Training resource pack on the elimination of hazardous child labour in agriculture.* International Programme on the Elimination of Child Labour (IPEC). Geneva: 2005.

thinking because of the desire to reduce aid dependence.

Image and motivation

- School gardens suffer from a general negative image, shared by schools, teachers, children, and the community. This is due to lack of ownership, the use of the garden as punishment, the low status of agricultural work, and situations in which there is no benefit from the produce and little learning taking place.

Learning agenda and curriculum

- Garden learning is usually limited to agriculture, often as a secondary school option.
- Links between gardening, healthy eating, and a healthy environment are seldom perceived by teachers, schools, and learners (or even by agricultural experts).
- Nutrition education in the classroom is largely unapplied and the garden's value for practical nutrition education (e.g. planning what to grow for a healthy diet, learning food processing and preserving) is not perceived.
- School garden work is mostly extracurricular, which reduces its attraction for schools and pupils intent on scholastic success.

Garden resources

- The main requirement is water, and this is often lacking.

Institutional responsibilities

- In some countries, agricultural extension services assist schools gardens, but they are overstretched and under-funded. There is little input from health authorities, nutritionists, or environmentalists at national or local level.

Networking for Schools

How can schools have access to information, advice, and exchange their experiences?

Some ideas were:

- "school clusters" centring on resource centres
- donkey mobile libraries
- schools sharing expert staff
- establishing inter-school grapevines.

Regarding a regional garden-based learning network, the group suggested a partnership approach with FAO acting as an information clearinghouse.

Community support

- There is a general lack of community support for school garden activities.

Capacity

- There are capacity gaps at all levels and teachers and schools are overburdened.

Nevertheless, projects, NGOs, and governments are experimenting with and establishing new models, with greater emphasis being placed on environmental awareness and sustainable resource management. There is also increased focus on livelihoods, enhanced learning, higher motivation for all participants, greater ownership by learners, and greater involvement of family and community. A variety of management structures are being tried, with more or less stakeholder and expert representation and community input, and a promising involvement of learners in garden planning and management.

Principles of School Garden Development

Bearing in mind the diverse circumstances and needs country to country and school to school, the participants agreed that school gardening programmes should adopt the following principles for school garden development:

Purpose	**School gardens should be primarily for educational purposes**. The garden should be linked to good nutrition, putting education first. The long-term goals of school gardens should be food security and healthier lives for children and society. Other objectives associated with school gardens should be health, food security, income generation, practical life skills, and entrepreneurship. These goals - learning, income-generation, school feeding, and nutrition - need to be balanced in a principled way. Self-sufficiency in food production may be an unrealistic target. School-linked food production, such as local farmers being paid to raise crops for school feeding, can be considered as a means of providing school meals in order to release school gardens for educational purposes.
Beneficiaries	**Children should be the main direct beneficiaries** and school garden work should not infringe upon children's rights.
Motivation and Image	It is important to **select interested and motivated facilitators and teachers.** The image of garden projects can and must be turned around. Some approaches are to build interest and ownership in the garden and garden processes through events such as competitions or fun and games.
Learning Agenda and Curriculum	**A coherent garden learning programme and nutrition education should be linked to the school garden and to school feeding, and incorporated into the mainstream curriculum.** The garden learning agenda should reflect the needs of children, particularly OVC, for improved health, food security, livelihood skills, and support them to adapt to stress and change. Garden learning should be active, with students as practitioners and assessment done on the basis of skills learned. Garden-based learning should include nutrition education, agriculture skills, sustainable resource management and environmental awareness, practical business skills, life skills, and the process of developing and managing the garden itself from planning through production to processing, preserving, and presenting food. Conceptual and attitudinal barriers to change (e.g. perceptions of the

	environment and nutrition, attitudes to food or eating practices, ideas about children's roles) should be recognized in developing garden learning. Curriculum development should be extended to pre-service and in-service teacher education. Garden-based learning didactic materials need to be developed.
Technologies and agricultural approaches	**Garden-based learning should draw upon locally-adapted crops and local resources**, **promote indigenous techniques, and adapt approaches to local conditions**. Principles of organic gardening and permaculture, especially soil and water conservation, should be promoted. However, it may be acceptable in certain cases to employ the controlled use of pesticides, provided that older students are trained properly in their safe use.
Inter-sectoral collaboration	**A wider range of institutions**, including health and environment ministries as well as education and agriculture ministries, need to be represented in school garden policy-making.
Community support	**The school garden should be established and maintained through participatory planning and community involvement.** School gardens need the support of communities, local organizations, NGOs, and JFFLS. Family and community should be seen as resources and involved from the start through participatory planning. Ways of involving them most effectively must be explored and evaluated.
Management	**Garden management structures need to be tried and evaluated**. Efforts should be made to involve children in garden planning and management.
Capacity-building and information exchange	**Capacity-building and awareness-raising are needed** at supervisory level, among school staff and extension staff, in PTAs and the community, and in education colleges. There is a need for establishing a regional network for information sharing, learning, sharing experiences, and linkage to external partners. Local networking is also needed to empower schools to gain independent access to information, advice, and exchange of experiences.

Recommendations

While there was not sufficient time to draft National Action Plans, the participants did make the following recommendations for follow up by focal points at national level.

Government policy regarding school gardens should:

1. Bring together the ministries of agriculture, education, health, and the environment.
2. Recognize and clarify the potential role of school gardens in enhancing food security and mitigating the effects of HIV and AIDS.
3. Link school gardens to school health and nutrition policy and children's dietary needs.
4. Clarify the balance between income generation, food production, and learning aims.
5. Formulate guidelines for schools.
6. Explore alternatives to using school gardens as main sources of school meals.
7. Promote agricultural approaches which safeguard the environment, respond to climatic change, and make use of local resources.
8. Extend and clarify institutional roles and responsibilities in relation to school gardens.
9. Help to establish and maintain a regional school garden network.

School garden projects and initiatives should:

1. Analyse nutrition needs, practices and attitudes, and home and school gardening practices to ensure that food production and nutrition learning will genuinely enhance children's diet.
2. Take steps to deal with motivation and attitudinal or conceptual gaps and barriers.
3. Promote locally-adapted crops and use of local resources.
4. Promote organic gardening approaches.
5. Ensure input from agriculture, education, health, and environmental institutions and good coordination between them.
6. Explore and evaluate local partnerships, community links, and garden management structures; build on existing structures.
7. Assess capacity resources and gaps in all participants.
8. Develop value-for-money Information, Education, and Communication (IEC) strategies.
9. Start training and materials development early.

Developers of curriculum and garden learning plans should:

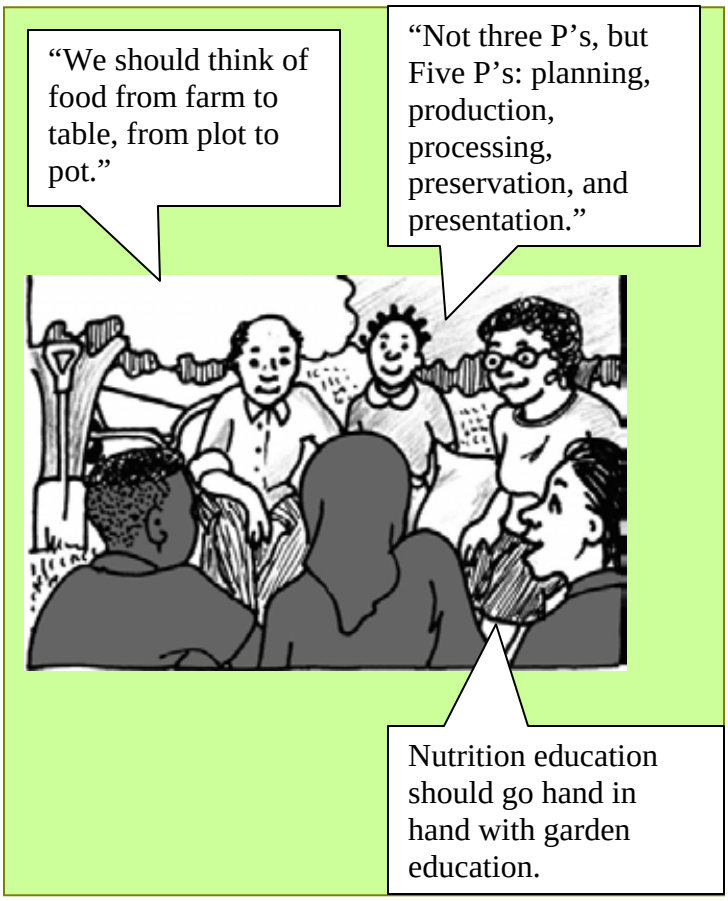
1. Explore existing knowledge, attitudes, perceptions, and practices and the changing social and physical context as a foundation for curriculum development, giving high priority to the special needs of OVC.
2. Establish the balance of nutrition education, environmental education, agricultural education, business skills, garden management, and life skills within garden learning.

3. Explore the possibility of integrating garden-based learning into the existing school curriculum without sacrificing its coherence.

Next Steps Proposed by Country Groups

Country groups proposed actions for disseminating workshop findings, supporting policy dialogue, identifying institutional coordination mechanisms, identifying capacity gaps, and developing a regional network, in particular:

- brief and lobby government departments, own organizations, local authorities, and communities in order to:
  - carry out needs assessment, validation and evaluation
  - hold workshops/ consultations for stakeholders
  - promote synergy with JFFLS and Farmers Field Schools (FFS)
- include the workshop recommendations in policy dialogue or form multi-sectoral steering groups to contribute to policy development
- identify institutions to be coordinated, network to bring them on board, define roles and responsibilities for identified stakeholders and get their commitment
- assess capacity gaps in schools, Parent-Teacher Associations (PTAs), teachers, education college lecturers, and trainers of trainers; identify key skills and perceptions; develop and disseminate value-for-money IEC strategies
- develop a regional network for the exchange of experiences and information, lesson harvesting, capacity building and linkage to external partners, and close collaboration with neighbours; strengthen and link to existing networks
- (in discussion) establish local networking to empower schools with independent access to information, advice, and exchange of experiences.



FAO Next Steps

FAO proposes to act at the global level to enhance advocacy and resource mobilisation and in particular will:

- assemble and review existing documentation and pull together findings
- document the evolving model of the school garden in a discussion paper that will take into account the special requirements of chronic emergency situations (environmental shock, climate change, threats to livelihoods, and high HIV prevalence) and identify the evolving continuum of provision relating to different age groups (the very young, primary school children, the 14-17 age group, and older children)
- convene a meeting with all actors/divisions at headquarters level and ensure linkages between programmes, divisions, and departments within FAO.

The regional FAO office will:

<u>Immediately</u>

1. Produce and disseminate the workshop report.
2. Synthesize the country papers.
3. Produce and disseminate a discussion paper on school gardens and JFFLS.
4. Hold a meeting in Rome on school gardens.
5. Produce recommended guidelines for school garden projects in emergency settings.

<u>In the short-term</u>

1. Develop modular material and in-service training for teachers ("fast-track material for school gardens in emergency settings").

<u>In the medium-term (six months – one year)</u>

1. Advocate for pre-service training.
2. Finish the teacher resource lessons and toolkit, incorporating disaster preparedness and drought contexts.
3. Produce a guide to short-term school garden projects, including instructions on use of the School Gardens Manual, a process guide for establishing school gardens, and how to create a monitoring and evaluation plan.

Workshop Evaluation

An evaluation of the workshop was conducted which found that the participants enjoyed and appreciated the workshop, with all respondents rating the workshop over “satisfactory” and three-quarters of them rating it “good.”

Some objectives were not fully met or discussed in enough depth during the workshop - namely, developing the school garden operational guidelines, creating synergies between school gardens and JFFLS, and the issue of reconciling long-term needs with emergency programmes.

Particularly highly valued were the new insights gained, the presentations, and the workshop organization and facilitation. The need for follow-up was stressed.

(See Annex 4 for full evaluation results.)

ANNEX 1: Workshop Attendees and Focal Points

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ANNEX 2: Workshop Programme

INTER-COUNTRY WORKSHOP

Enhancing the Effectiveness of Garden-Based Learning for Improved Livelihoods and Nutrition Security of School Children in high HIV prevalence areas in southern Africa

12- 15 June 2007

Pandhari Lodge

PROGRAMME

DAY 1

09.00 – 09.30 AIDS	Introduction – *Fadzai Mukonoweshuro,* FAO Zimbabwe HIV & Officer) Welcome by FAO Representative, Zimbabwe Official opening – Permanent Secretary for Education Housekeeping and security briefing
09.30 – 9.45	Workshop Objectives and discussions *Margaret McEwan*, FAO RIASCO • review existing garden-based learning and nutrition education activities in the region • identify best practices and lessons learned • develop operational guidelines for school gardens in emergency contexts and high HIV/AIDS prevalence • create synergies between school gardens and Junior Farmer Field and Life Schools • reconcile long term education and nutrition needs with emergency programmes • identify needs for capacity building • recommendations for networking and knowledge exchange (identify emergency framework and parameters thereof)
9.45 – 10.00	Setting the context: The impacts of HIV and AIDS on children and their future livelihoods - *Carol Djeddah,* FAO HQ, Rome, Gender, Equity and Rural Employment Division

SESSION 1: CONCEPTS, APPROACHES AND AIMS

10.00 – 10.30	FAO's concept and approach on school gardens and the promotion of lifelong healthy eating - *Ellen Muehlhoff,* FAO HQ, Nutrition and Consumer Protection Division

10.30 – 10.45	Tea/Coffee
10.45 – 11.45	Group Work: Review purposes and objectives of school gardens and consider roles of school gardens in high HIV prevalence areas
11.45 – 12.30	Presentation of Group Work (4 groups)
12.30 – 13.30	Lunch

SESSION 2: COUNTRY EXPERIENCES

13.30 – 13.35	Introduction to Session - *Margaret McEwan*
13.35 – 14.35	Country synthesis of experiences and lessons from school garden projects (based on country papers from Malawi, Mozambique, Lesotho, Swaziland, Zambia and Zimbabwe) and panel discussion - *Jane Sherman,* FAO Consultant, and country representatives
14.35 – 15.45	Experiences and lessons from South Africa – *Hilda Pheto,* Food Gardens Foundation
15.45– 16.00	Tea/coffee
16.00 – 16.30	Junior Farmer Field and Life Schools (Curriculum) plus video - *Carol Djeddah,* FAO HQ, Gender, Equity and Rural Employment Division
16.30 – 17.00	Discussion and wrapping up

DAY 2

08.30 – 08.45	Recap of Day 1
8.45 – 9.15	Experiences and lessons from South Africa – *Joanne Rolt,* Trees for Africa
9.15 – 9.30	FAO Experiences & Lessons in Zimbabwe – *Fadzai Mukonoweshuro*
9.30 – 10.00	Discussion
10.00 – 10.15	Tea/Coffee
10.15 – 11. 15	Group work
11.15 - 12.15	Feedback

12.15 – 13.00	Lunch
13.00	Depart for field trip

DAY 3

SESSION 3: COUNTRY ACTION PLANS

08.30 – 08.45	Recap
08.45 - 09.00	Field Visit Feedback
09:00 – 09:15	Malawi Experience
09:15 - 09:45	Bridging theory and practice: integrating garden-based learning into the curriculum – *Jane Sherman*, FAO consultant
09.45 - 10.00	Tea
10.00 - 10.45	Plenary Discussions
10.45 – 11.00	Introduction to group work - *Ellen Muehlhoff*
11.00 – 12.30	Group work
12.30 - 13.30	Lunch
13.30 – 14.00	Write up of group work
14.00 – 15.30	Report back (by country) • Lesotho • Malawi • Mozambique • Swaziland • Zambia • Zimbabwe
15.30 – 16.30	Discussions, conclusions and next steps
16.30 – 17.30	Networking

ANNEX 3: Workshop Speeches

WELCOME ADDRESS BY JEAN-CLAUDE URVOY, FAO EMERGENCY COORDINATOR **on behalf of Gaoju Han, the Sub Regional Coordinator and Representative for Zimbabwe and Botswana**

Mr. Chairman and honorable delegates, it is with great pleasure that I welcome all of you to this workshop. A special welcome goes to those from out of Zimbabwe (Zambia, Malawi, Mozambique, Lesotho, South Africa and Rome). I have also the pleasure to welcome all the government officials here present.

As you have noted already, the venue of the workshop is here at Pandhari Lodge which is a few kilometres from the city centre. It is my hope that the choice of venue will minimize disruptions especially on the part of local participants.

Coming to the objectives of the workshop I would like to begin by saying that this unique workshop brings together an outstanding group of experts and policy makers to focus on the importance of school gardens in food and livelihoods security for vulnerable children in HIV prevalent areas. This exceptional opportunity has brought together two backbone sectors of any nation namely agriculture and education. As FAO, we are here because of the primary interest on livelihoods and nutrition security for children, a factor which is important more so during a time like this when southern Africa is experiencing HIV prevalence rates. The workshop should also go some way in recommending strategies that increase relevance and quality of education with reference to life skills.

The programme has included presentations of experiences on garden based-learning by different countries. I hope the sharing of these experiences will enhance the implementation of garden-based projects in participating countries. With reference to what I have alluded to, Zimbabwe is also implementing a school-garden project on 50 primary schools and 10 secondary schools. FAO is experimenting with different concepts in order to come up with lessons learnt as well as best practices which we hope to share with you during this forum. I urge the Zimbabwean team as well as the rest of you to tap on experiences and strategies that will be shared during these three days.

On behalf of FAO-Zimbabwe, I would like once again to thank all the participants for taking time off their busy schedule to attend this workshop. I am sure that all participants will be able to utilize the recommendations from this workshop in implementing garden based learning in their countries.

I thank you

***OPENING ADDRESS BY THE PERMANENT SECRETARY FOR THE MINISTRY OF EDUCATION, SPORTS, AND CULTURE, DR STEPHEN MAHERE*, delivered on his behalf by Mr. Kapisa**

- The chairperson
- Officials from the food and agricultural organization of the united nations
- Representatives from various southern African countries namely Lesotho, Zambia, Mozambique, South Africa, Malawi and Swaziland
- Senior Zimbabwe government officials
- Representatives of Zimbabwean non-governmental organizations
- Ladies and gentlemen

It is with great honour and pleasure that I join you today to give an opening address and participate at the workshop to review the strategies for enhancing the effectiveness of garden-based learning for improved livelihoods and nutrition security of school children in high prevalence areas in southern Africa organized by the food and agriculture organization of the united nations (FAO). The diversity of the countries and organizations represented here demonstrates that food, nutrition and livelihoods security of children is of paramount importance in southern Africa where the overwhelming majority of school going children and their families and communities are vulnerable to food and nutrition insecurity and cannot meet desirable livelihood requirements.

The workshop has come at the right time when the southern Africa region in general is experiencing the underlying conditions of chronic vulnerability and poverty that are overlaid by the ever-present risks of extreme climatic events such as drought or flood and economic and policy shocks. In addition, the ability of communities, national and international institutions in southern Africa to respond to increased needs has been severely compromised by the cumulative and systemic impacts of HIV/AIDS related illness and death.

One result of high HIV prevalence rates and impacts from AIDS related morbidity and mortality is the increasing number of orphans and vulnerable children (OVC) in southern Africa. Children are profoundly affected as their parents fall sick and die, which can destroy their vision and hopes for the future. Furthermore, agricultural, food and nutrition education knowledge and skills, values and beliefs are not passed to the younger generation leaving children with few skills to survive and build their livelihoods. This situation poses a threat to both the short and long term food and nutrition security of OVCs and their potential contribution as adults to household, national, and regional economic well-being.

I am told that one of the current responses to this situation in southern Africa has been the promotion of garden based learning in primary and secondary schools. FAO and various non-governmental organizations represented here have taken steps to implement garden

based learning in schools. I understand these efforts on school gardens or garden based learning have the potential of:

1. Increasing the relevance and quality of education for rural and urban children through active learning and through introduction of food and nutrition-related knowledge and skills into the curriculum;
2. Providing school children with practical experience in food production and natural resource management, which serves at the same time as a source of innovations they can take home to their families and apply in their own household gardens and farms;
3. Improving pupils' nutrition through the provision to disadvantaged children of vegetables and cereals that are important for balanced diets.

It is also clear that the promotion of school gardens can contribute to HIV and AIDS impact mitigation through providing school students with a vision, practical knowledge and skills around the options available for improved livelihood and food and nutritional security in areas that are highly vulnerable to food insecurity due to the impact of HIV and AIDS.

This workshop is bringing together various southern African countries and organizations to review ongoing garden-based learning and nutrition education in primary and secondary schools in the context of the HIV/AIDS pandemic in southern Africa. To share experiences on good practices for national and regional school garden strategies, and to develop guidelines for future networking and information sharing.

I am convinced that by sharing and reviewing experiences the workshop will impart some enhanced understanding and a common vision among stakeholders across the region as to the necessary components and processes for successful national school garden programmes. It is also envisaged that the workshop will come up with operational guidelines for the effective implementation of school gardens for all participating countries and will result in the development of national actions plans and modalities for regular knowledge exchange in the region.

Ladies and gentlemen, I am pleased to note that school garden efforts are in line with the millennium development goals that aim to:

- Eradicate extreme poverty and hunger
- Promote gender and empower women
- Ensure environmental sustainability
- Combat HIV and AIDS, malaria and other diseases
- Achieve universal primary education
- Improve maternal health
- Reduce child mortality, and
- Develop a global partnership for development

I am happy that the southern African region has already started work on localizing the millennium development goals.

On behalf of the government of Zimbabwe, I would like to extend our great appreciation to the funders and participants of this workshop.

It gives me pleasure to observe that there is broad participation at this workshop, and we will get views from a wide variety of stakeholders. I challenge participating organizations not to wait for the southern African governments to address food, nutrition and livelihoods issues on their own, but to come up with practical solutions and strategies to problems that the vulnerable children and communities are facing. I also challenge the workshop to come up with community based approaches in project planning and management to ensure that the local communities and schools are strengthened to plan and implement food and nutrition security initiatives on their own.

It is my sincere hope that during deliberations you will come up with implementable strategies and hands-on work which will enable us to work together as we run away from promoting dependency through free food handouts.

I declare the workshop officially open and I wish you the best in your deliberations.

Thank you

ANNEX 4: Workshop Evaluation

Participants completed a written evaluation, which is summarised below.

Scoring 1 = very poor, not at all 3 = satisfactory 5 = very good
2 = poor/a little 4 = good 6 = excellent

Question	Average Score	Comments
Overall assessment	4.4	Very enhancing, well represented Need to deepen the issue of emergency, HIV and AIDS and nutrition
Did we reach the objectives?		
1. to review existing garden based learning and nutritional education activities in the region	4.4	Good, fascinating experience
2. to identify best practices and lessons learned	3.9	Satisfactory
3. to develop operational guidelines for school gardens in emergency contexts and high HIV prevalence areas	3.3	Discussion too general
4. to create synergies between school gardens and JFFLS	3.3	Could have been covered more
5. to reconcile long term education and nutrition needs with emergency programmes	3.4	Not much discussion on this, still a grey area
6. to identify needs for capacity building	4.2	Good but needs to be deepened
7. to make recommendations for networking and knowledge exchange	4.4	Very good Needs to be followed up
Were the presentations useful?	4.8	Good especially in terms of theory; Very useful
Did you learn new insights?	4.8	Yes, mostly
Were the group sessions useful?	4.5	Yes, mostly
Were the plenary report backs useful?	4.4	Opportunity not fully exploited in plenary
How would you rate your participation and contribution?	4.3	No comments
How would you rate the facilitation?	4.8	Very good, sessions well managed Time keeping an issue
What was the overall organisation like?	4.7	Responsive , sensitive and open Commendable