



## **Pillars and Key Strategies for Sustainable Agriculture in Africa**



### **Introduction**

Manor House Agricultural Centre (MHAC) was established in 1984 in response to a three-year drought that caused severe hunger in many areas of rural Kenya. Against this stark background, the need for new approaches to farming was strikingly evident. 75% of Kenyans make their living from farming, and over 85% of these are small-scale, family farmers. Kenya's agricultural policies have historically focused on growth objectives at the expense of equity issues and have largely neglected the small farmer. Despite the fact that the majority of Kenyan farmers work on an average holding of 1.1 hectares, policies have focused on the development of cash crops destined for export. Such policies provided a net gain in exports, but today, Kenya imports 80% of its food.

MHAC is an indigenous organization that for over two decades has been at the forefront of helping the neediest Kenyan families to achieve ongoing food security through improved soil fertility and increased farm production, and a modest level of prosperity through marketing of their excess crops. Since its inception, MHAC has been a leader in the movement in Kenya to increase food security by introducing small-scale farmers to farming practices that make efficient use of limited resources, require few, if any, external inputs, and protect natural resources (particularly soil fertility) for future generations.

The curriculum at MHAC addresses the goals of the United Nations and the World Food Council, which are calling for forms of agriculture that reduce chemical use, conserve and rehabilitate soil, improve farm productivity, conserve plant genetic resources, research and develop organic farming techniques, use and conserve local resources, and produce large amounts of calories from small areas.

### **Methods**

MHAC promotes GROW BIOINTENSIVE, a low cost agricultural technology suited to small-scale farmers developed at Ecology Action in Willits, California, USA with over thirty-five years of experience and thirty publications in this field, which are used nationally and internationally. Media coverage of this work has

included the Chicago Tribune, The Los Angeles Times, The New York Times, Science '80, The Christian Science Monitor, Horticulture, The California Farmer, and the PBS Television Network and many more.

GROW BIOINTENSIVE can make possible:

- 200 - 400% increase in caloric production per unit of area,
- 67 - 88% reduction in water consumption per unit of production,
- 100% increase in soil fertility while productivity increases and resource use decreases,
- 50% reduction in the amount of purchased fertilizer required per unit of production,
- 99% reduction in the amount of energy used per unit of production,
- 100% increase in income per unit of area.

In addition, MHAC training programmes provide participants with skills in livestock management, nutrition, appropriate technology, small business management, and agroforestry

### **MHAC Programs:**

MHAC's training programs include a 2-year residential certificate course; 1-week workshops for farmers; and 6-weeks to 3-months short courses for community development practitioners from any country.

To date, more than 450 students have graduated from the MHAC two-year certificate program, and MHAC staff and graduates have trained over 150,000 rural farmers. Kenyan farmers who have benefited from training in GROW BIOINTENSIVE are able to improve productivity, generate income, and at the same time improve soil fertility. This is a major step to combating hunger and malnutrition.

### **MHAC Graduates**

MHAC estimates that well over 100 Kenyan NGOs have been started by its graduates to teach GROW BIOINTENSIVE practices and other related technologies aimed at sustainability.

In one example, GROW BIOINTENSIVE training for two MHAC graduates was multiplied through the Integrated Rural Community Empowerment Program (IRCEP) in Kenya to provide basic GROW BIOINTENSIVE training to over 540 people during a 4-year period. At the beginning of the training, most of these 540 farmers and their families could not grow enough food for three meals a day because of fertilizer and other artificial input costs. In economic terms, their family income amounted to *less than zero*. However, results of an on-farm follow-up survey conducted in the 5th year were dramatic. Farmers using GROW BIOINTENSIVE techniques were able to provide three nutritious meals per day for their families and generate, on average, \$30 per month in income from excess crops sold at market.

## What the Bill & Melinda Gates Foundation Can Do

THE PILLARS OF SUCCESSFUL AGRICULTURAL DEVELOPMENT IN AFRICA	THE KEY STRATEGIES
<p><b>1. PROMOTION OF LOW EXTERNAL INPUT AGRICULTURE</b></p>	<ol style="list-style-type: none"> <li>1. Promote low cost, low technology, affordable, self-sustaining, time tested and easily integrated technologies e.g. Bio-intensive, organic agriculture, sustainable agriculture, etc.</li> <li>2. Utilize the Resources Oriented Development (RODA) as opposed to Problem Oriented Development Approach (PODA)</li> <li>3. Design programmes that are aimed at maximizing the use of locally and readily available resources</li> <li>4. Design programmes that are aimed at strengthening and improving the existing systems e.g. seed systems, local innovations / technologies and systems</li> <li>5. Form a multi-stakeholder Pan African movement for sustainable agriculture aimed at promoting sustainable agriculture systems including Grow Bio-intensive agriculture, organic agriculture, etc.</li> <li>6. Practice such sustainable systems in our individual farms as role models</li> </ol>
<p><b>2. PROMOTE AND EMBRACE POLICIES THAT ARE FAVORABLE AND ARE CONDUCTIVE TO SMALL-SCALE FARMERS.</b></p>	<ol style="list-style-type: none"> <li>1. Design Campaign, Advocacy and Lobby Programmes to fight for change or development of policies in favor of small-scale farmers</li> <li>2. Design Campaign, Advocacy and Lobby Programmes to fight for farmer's rights and welfare e.g. fair trade, seed saving and seed sharing rights etc.</li> <li>3. Design and implement Lobby Programmes which are aimed at increasing national budgetary allocation to the agricultural sector</li> <li>4. Support the awareness campaigns on pertinent issues e.g. HIV / AIDS; population explosion; gender; youth involvement, climate change, etc.</li> <li>5. Implement programmes to educate and create awareness to farmers and consumers on pertinent and key issues that affect them so that they respond according to knowledge as opposed to ignorance.</li> <li>6. Lobby for the inclusion of the syllabus for sustainable agriculture in schools, colleges and university curricula</li> <li>7. Review existing policies and give recommendations for incorporation of successful agricultural systems including Grow Bio-intensive, organic agriculture, sustainable agriculture, etc...</li> </ol>
<p><b>3. PROTECT, PRESERVE AND CONSERVE THE ECOSYSTEMS, BIODIVERSITY AND THE ENVIRONMENT OF AFRICA.</b></p>	<ol style="list-style-type: none"> <li>1. Support and implement programmes that are ecologically friendly and culturally acceptable</li> <li>2. Design and implement environmental conservation (not destruction) programmes</li> <li>3. Design, implement renewable, and save-energy programmes.</li> <li>4. Subject all the development programmes being implemented to a mandatory and thorough Environment Impact Assessments (EIA)</li> </ol>
<p><b>4. EMPOWERING SMALL-SCALE FARMERS AND LOCAL COMMUNITIES AS WELL AS INCREASING THEIR KNOWLEDGE BASE AND CAPACITY.</b></p>	<ol style="list-style-type: none"> <li>1. Support and mainstream the farmer to farmer extension</li> <li>2. Identify, document and share farmer best innovations and practices</li> <li>3. Provide and increase farmer information sharing forums .e.g. farmer learning visits; exchange visits, etc.</li> <li>4. Support the establishment of community resource and learning centers / mini-training centers in rural areas.</li> <li>5. Farmers to take lead in articulating on issues that affect them.</li> </ol>

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	<ol style="list-style-type: none"> <li>6. Support and implement farmer-led research and documentation, which enhance interaction between farmers and the scientists.</li> <li>7. Encourage adequate participation of local beneficiaries on issues and key decisions that affect them.</li> </ol>
<b>5. AIMED AT ENHANCING LIVELIHOOD SECURITY OF SMALL-HOLDER FARMERS</b>	<ol style="list-style-type: none"> <li>1. Promote sustainable food production, increase post harvest management and add value / agro-processing and marketing of the agro-products</li> <li>2. Promote rural agri-business enterprises / rural industrialization.</li> <li>3. Support farmer friendly Credits Schemes e.g. Community-run rural banks / table banking schemes and revolving funds</li> <li>4. Promote agricultural systems that help farmers evolve from subsistence farming to commercial farming and view agriculture as an industry.</li> </ol>
<b>6. ENHANCE AND PROMOTE PEACE AMONG THE COMMUNITIES AND COUNTRIES.</b>	<ol style="list-style-type: none"> <li>1. All NGOs / CBOs / CSOs, Faith Based Organizations (FBOs) and farmer organizations participate in conflict monitoring, peace and reconciliation processes. e.g. Conflict Early Warning Systems (CEWS)</li> <li>2. Design and implement cross-border and inter-country programmes</li> </ol>
<b>7. RESPECT AND PROMOTE THE USE OF INDIGENOUS TECHNICAL KNOWLEDGE</b>	<ol style="list-style-type: none"> <li>1. Implement programmes that promote use of indigenous knowledge and practices e.g.: <ul style="list-style-type: none"> <li>▪ Indigenous food programmes</li> <li>▪ Cultural biodiversity</li> <li>▪ Youth counseling, education and mentoring</li> </ul> </li> <li>2. Promote indigenous Seed banking</li> <li>3. Encourage production and preservation of indigenous and local seed at the farm level and community level.</li> <li>4. Conduct research on indigenous and local seed and certification for commercialization.</li> <li>5. Promote successful local farmer innovations and best practices.</li> </ol>
<b>8. PROMOTE COLLABORATION, NETWORKING AND CROSS-LEARNING AND SHARING</b>	<ol style="list-style-type: none"> <li>1. Promote the scaling-up, replications of best practices and innovations through networking forums e.g. exhibitions, symposiums, shows and market places</li> <li>2. Promote and scale-up the experiences of the “islands of success”</li> </ol>

MHAC is a good place to begin these efforts of strong, sustainable, local and regional food systems that ensure access to affordable, nutritious, and culturally appropriate food for all people at all times.

**MHAC Contact Information:**  
Manor House Agricultural Centre  
Private Bag, Kitale 30200, KENYA  
Phone: 254 733 837 157 or 722 221 532  
Email: mhac@africaonline.co.ke

Village Volunteers  
206.577.0515 • info@villagevolunteers.org  
www.villagevolunteers.org