

Manor House Agricultural Centre



Ecosystem: Wetlands, Grasslands, Forest

Area Impacted: Varies from 0.1 to 2 acres per farmer

Production Quantity: Biointensive Agriculture (BIA) practices enables sustainable production of increased yields of 2-4 times more per unit land area than in conventional methods

People Employed: 5,000+

Population Impacted: ~ 2 Million people

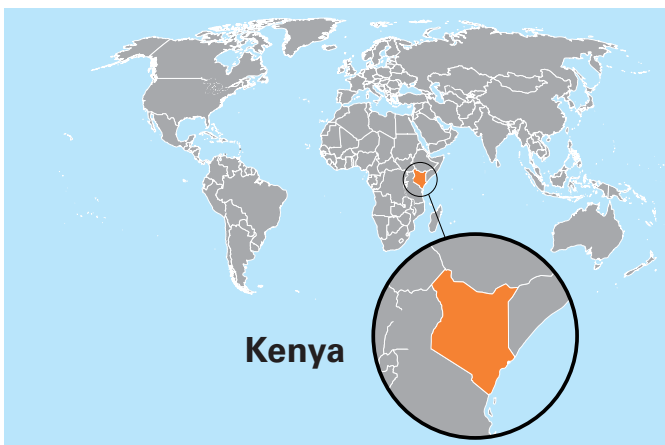
The Situation

Land size per head in Kenya's Trans-Nzoia County has declined as families subdivide parcels or sell them. Further, the number of small scale farmers has increased. Over 70% of farmers in Kenya are smallholders with less than 1.5 acres of land, and the majority cultivate maize and beans. These farmers mainly use conventional methods. Soil Ph of 3.6, or marker of high acidity, has been reported and attributed to prolonged use of fertilizers. This level of acidity is not conducive for production of maize and beans, endangering the staple crops. Due to poor yields and unemployment rates of nearly of 50%, (ASDSP 2016), the county is threatened with food insecurity and poverty. Maiyo (2015) reported poverty level of 56.72% in Kwanza district. A shift in rainfall patterns attributed to climate change has worsened food and nutrition situation. Farmers are now cultivating riparian lands in search of water for food production. This has led to loss of soil, silting of rivers, and pollution of river water.

The Solution

Manor House Agricultural Centre (MHAC) promotes BIA technology through training, research and extension. Key components of BIA include: 1. Composting organic matter to improve soil fertility 2. Deep soil preparation to enhance growth 3. Companion planting to optimize yields 4. Mulching to conserve soil moisture 5. Close spacing to increase productivity 6. Non-chemical pest and disease control to produce safe food 7. Open pollinated seeds to conserve genetic diversity 8. Carbon and calorie farming in specific proportions to produce food and biomass for composting. BIA training is conducted practically in our demonstration gardens on station and on farms. Trained farmers train others, and MHAC provides technical support through follow ups to enhance adoption of best practices.

The results are impressive. First, BIA uses 67-88% less water per unit of production. It enables fast soil regeneration and the spongy nature of soil under BIA ensures conservation of moisture thus conserving water. Napier grass and fodder trees also serve to stabilize soil and ensure a clean, unpolluted river flow thus reducing incidences of water-borne diseases to ensure healthy families. Families have also benefited from stronger food security and from an improved sense of community. BIA produces abundant and diverse foods from small land parcels. Family conflicts resulting from inadequate food have been resolved with abundance food in homes with surplus for sale. This sale also provides increased income. BIA has also enhanced social cohesion within the community. Stakeholders use the training forums to introduce development agendas in the community and even for civic education like voter registration. BIA has also helped reduce petty crime by providing extended work to youth and other community members.





Farming for Biodiversity

Unsustainable agricultural practices remain one of the greatest threats to ecosystems and biodiversity. As the world population is expected to reach nine billion by 2050 and climate change further threatens livelihoods, we have to find ways of agricultural production that support farmers and the environment we all rely on.

The good news is these solutions already exist: From modern beekeepers who work on reviving ancient local wisdom to phone apps connecting rural farmers with urban consumers.

With Farming for Biodiversity, we are on a global mission to surface these local solutions, celebrate them and bring them to scale.

Our vision is to make these community-led initiatives shine and reach:

- Over 200 million globally through media impressions and publications
- Over 100,000 active website participants and readers of online publications
- 200 selected agriculture & biodiversity pioneers through eight technical and campaign trainings, hosted across the globe
- 800,000 farmers, conservationists and other land users at the community-level



Through our crowd-sourcing contest Solution Search, we have identified over 300 innovative and replicable ideas that connect agriculture, livelihood and the environment. These selections were assessed by our renowned panel of expert judges from leading organizations around the world.

Based on the solutions surfaced, we will host eight in-country workshops to introduce the most promising approaches to local influencers. Trainings will equip participants with the skills to implement locally driven solutions in their own communities. Longer term grants will provide an additional incentive to continue their work. These efforts will expand these approaches globally, reaching 800,000 people!

Throughout the project, we will gather, analyze and publish lessons learned. An online peer-to-peer network will connect all solution providers and facilitate interactive exchange across countries and themes. We will actively engage in global environment and agriculture policy processes – such as the Convention for Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC) and Sustainable Development Goals (SDG) meetings, drawing attention to community leaders and local champions.