SOILS, FOOD & HEALTHY COMMUNITIES

An IPEN Case Study
Lush Spring Prize 2017: Young Project

Project Summary:

Soils, Food, and Healthy Communities (SFHC) in Malawi works to support smallholder farmers to build healthy, equitable, and resilient communities using farmer-led participatory research, ecological approaches to farming, local indigenous knowledge and democratic processes.

Farmers working with SFHC experiment with agroecological approaches including legume diversification, agroforestry, and animal manure that have resulted in improved child nutrition, food security and soil management. Farmers also engage in participatory educational activities related to nutrition, climate change, gender, and social equity. SFHC's work is dedicated to addressing economic, health and social inequalities at household, community and national levels.

David Banda and Esther Maona are very proud of the sweet potatoes grown using agroecology approaches, with no chemical fertilizer used; they have never grown such a big potato before.

SFHC's Permaculture & Agroecology Education Lessons

- A broad agroecological approach is used, including agroforestry, mulching and using animal manure, building on the initial legume diversification focus as a way to improve food security, soil fertility and child nutrition.
- Farmer-to-farmer training linked with participatory research is most effective, enabling farmers to do their own experiments and teach other farmers about their findings.
- In line with food sovereignty concepts, SFHC take account of the social and cultural situation locally, adjusting their educational approaches and strategies accordingly.
- Different levels of research can be integrated, to provide the most valuable forms of evidence for different audiences, with each level creating feedback which benefits different types of learning.

The Project's story

The Soils, Food and Healthy Communities (SFHC) project in Ekwendeni, northern Malawi, began in 2000 with thirty farmers, and is now working with over 4000 farmers as a participatory project in which farmers work to improve soil fertility, food security and nutrition through the use of grain or perennial legumes (e.g. peanut or soyabean).

Formed at the outset, the Farmer Research Team (FRT) is a volunteer, farmer led organization that conducts research and shares knowledge on behalf of and with the community. The FRT began with 30 members in 7 pilot villages, and with the increase in farmer participants has expanded to over 80 villages and 120 members in the FRT.

Esther Maona, explaining the fruit trees and herbs that have been planted.

Farmers and village leaders from the Area Development Committee on a learning tour of the Farmer Training & Learning Centre: all very impressed with the Pearl Millet crop which is one of the 'lost crops' in the region

Esther's story, a project team member

"I no longer spend time in the hospital with my children as I used to before I joined the project. You can no longer see a malnourished child in our village. I thank the project for showing us how we can farm without chemical fertilizers but be able to improve both the soil health and family food security" Esther Maona.

Esther got involved in the project because she had acute malnutrition with her children. She joined when she learnt that SFHC is promoting agroecological farming practices and child feeding practices. She learnt how to use legumes in order to improve soil health, and that at the same time the legumes are a great source of proteins. Nutrition education, with recipe and knowledge sharing, was initiated by the project and she started feeding her children the legumes which improved the nutritional status of her children.

Esther now promotes and teaches these approaches, working as a Community Promoter within the SFHC team in Ekwendeni.

Kamukhoti Mkandawire's view, a Beneficiary

"This farmer learning centre has a lot to take back home. If one can replicate what we have seen and learnt from here, we should all be food secure and living healthily."

The farmers from the villages surrounding the Farmer Training & Learning centre have benefited from the trainings on agroecology, and farmer-to-farmer learning by sharing knowledge and seeds.

SFHC in Malawi Goals and Objectives

Our goal is to support rural Malawians in building sustainable, healthy, equitable, resilient communities, using farmer-led, participatory research, ecological approaches to farming, local indigenous knowledge and democratic processes, while addressing economic, health and social inequalities at the household, community and national levels in Malawi.

Malawi Farmer-to-Farmer Agroecology project (MAFFA) operations are based on five main objectives:

- **Objective 1:** Agroecological methods: To improve food security, nutritional status, soils and sustainable agricultural practices of 6000 farming households in central and northern Malawi.
- **Objective 2:** Participatory, farmer-to-farmer model: Test the potential for a farmer-to-farmer model of education for scaling up use of agroecological methods in Malawi.
- **Objective 3:** Local orange maize: Determine the potential for local orange maize varieties as an acceptable socio-economic, cultural and biological option to improve the vitamin A content of diets in Malawi.
- **Objective 4:** Youth and farmer livelihoods: Extend the agroecological, participatory approach to youth and farmer livelihoods, by using participatory training methods in food processing and local food market development to improve food security, dietary diversity and income for 200 youth and a farmer association.
- **Objective 5:** Gender Equality: Women from participating households have greater access to resources and increased decision-making power over agriculture, food security and income.

SFHC's Examples of Good Practise: WHAT Is Being Done

MAFFA was launched by SFHC and Ekwendeni Hospital in October 2012, in collaboration with Western University, Chancellor College (University of Malawi), the University of Manitoba, Presbyterian World Service and Development, Canadian Food Grains Bank and Cornell University, and with support from Canada's Department of Foreign Affairs, Trade and Development. Through farmer-to-farmer training women, men and youth suffering from chronic food insecurity learn from fellow farmers about agroecology to sustainably manage their soils, increase the diversity and amount of food in their diet, improve young children's nutrition, and learn about local food market development. Farmers and youth are also developing local food enterprises to improve incomes and boost local rural economies. The project takes place in northern Malawi, in Mzimba District, north of Ekwendeni; and in Dedza District, in central Malawi. For more detailed information see FAO Case Study on the MAFFA project and the African Food Sovereignty Alliance case study on Legume Diversification to Improve Soil Fertility.

The Carasso Research Project: building on research and community development efforts started during the MAFFA project, SFHC has partnered with the University of Western Ontario in a 3.5 year project funded primarily by the Daniel and Nina Carasso Foundation. The project aims to increase understanding of how agroecological, participatory methods foster sustainable production, equity and dietary diversity in rural Malawi. 475 farmers, from 10 farming villages of Dedza and Mzimba Districts (4 implementation and 1 control village from each site) agreed to participate, having been selected based on food insecurity, interest in agroecology, and access to sufficient land.

Farmer-Led Agroecological Research in Malawi (FARM) for Biodiversity: FARM follows SFHC's model of farmer-led participatory education. It will train Malawian farmers in species identification and collect feedback from farmers on their perceptions of wild biodiversity through surveys and participatory methods like photo voice. The study will take place in the Mzimba District, drawing on the experiences of members of the MAFFA project.

SFHC Farmer Research and Training Centre will be the base for SFHC activities, providing space for classrooms, offices, farmer meetings, a dining hall and a kitchen for recipe testing and meal preparation. Dormitories are planned to allow visiting farmers a chance to stay and train onsite, and to facilitate visits from collaborating researchers and students. To demonstrate agroecological farming methods for training, a 1 acre garden is being developed with three main gardens and one orchard:

- The Dryland Garden: Section A is planted with cereals (fingermillet, maize, pearl millet, and pumpkins) intercropped with beans, cowpeas and pigeon peas; Section B is planted with mung beans, jugo beans and ground nuts, mixed with non-legumes like okra, sunflower and pearl millet; Section C is planted with tubers (cassava and four varieties of sweet potato) mixed with beans and pigeon peas.
- The Vegetable Growing Area has five sections, including legumes, leafy greens, fruits, herbs, roots and tubers.
- The Herb and Medicinal Growing Area has a wealth of medicinal plants, herbs and spices.
- The Orchard includes collection pits that serve as a water supply for banana trees.

Integrated curriculum on agroecology, climate change, nutrition and social equity: This training material was developed by a group of farmers, agricultural and social scientists, nutritionists, development organization staff, theatre & communication specialists from Malawi and Tanzania. It is designed so that rural people with limited education can use it to teach other farming households how to build more sustainable, resilient, healthy and equitable rural communities. The team met regularly in 'virtual' space, compiled literature and held a week long participatory workshop to develop the curriculum outline. Once a draft was ready, farmers were trained by other farmers using the curriculum, then it was revised and re-translated based on farmer feedback. In Malawi, half of households had a 'drama-enriched' curriculum to test the impacts of drama in farmer-led teaching, an example of which can be found here: Malawi Curriculum Example.

SFHC's Ways of Achieving Good Practise: HOW It Is Done

Farmer Leadership: The project's methodology relies heavily on the Farmer Research Team (FRT), which is based on a participatory model in which small farmer groups carry out research for the broader community (Ashby and Sperling, 1995). Informed by village leaders about the project, as volunteers, FRT members are voted in by their community, based on leadership ability, willingness to volunteer time to help others and their general interest in the project objectives. The FRT members come from various social groups (e.g. widows, divorced women, highly food insecure and well-off farmers), with more than 50% being women. FRT members have a critical role in farmer training, seed distribution, data collection and awareness raising, and also provide informal support to SFHC participants in agricultural and nutritional issues.

Research partnerships: FRT has been effective at involving farmers in the research process, both with a) practically focused research amongst the farmer groups, b) institutional research with Universities and research bodies, including partnerships spanning Malawi, elsewhere in Africa and north America.

Effective and Innovative Models of Participation: These build on the FRT farmer participation model, with additional input brought in from participation specialists from outside the agroecology field. For example, in developing the Integrated Curriculum, team members contributed modules which were then integrated using a 'soap opera' format, along with participatory activities, visual tools, stories & drama.

Permaculture Principles & Design in Action

Multi-functional design of inter-connected programmes: SFHC use a range of inter-related projects and programmes. They directly or indirectly support and benefit each other, creating feedback systems that enrich the outcomes of multiple programmes. They include:

- **Farmer-to-farmer training:** Malawi Farmer-to-Farmer Agroecology project (MAFFA), including use of creative, participatory methods such as drama.
- **Participatory research:** Farmers do their own experiments and teach other farmers about their findings.
- **In depth research projects:** The Carasso Project on participatory methods in agroecology; Farmer-Led Agroecological Research in Malawi for Biodiversity (FARM for Biodiveristy) project.
- **New integrated Curriculum on agroecology, climate change, nutrition and social equity:** Developed by a collaborating group of scientists, farmers and staff from development organizations in Malawi and Tanzania.
- **SFHC Farmer Research and Training Centre:** Under construction.

In permaculture education terms, the biggest lesson and recommendation is the establishment of a Farmer Training and Learning Centre which is designed by using permaculture/agroecology principles to incorporate a variety of demonstrations and which creates a visible and live learning tool.

In addition, what has worked very well in terms of education by doing, demonstrating and copying is:

- The initial mapping and design of the Farmer Training and Learning Centre into different units (dryland, herbal, orchard, vegetable, forest etc).
- The rain water harvesting techniques in the field were designed well, with the use of swales and contour ridges, and the rain water harvesting tank constructed by the farmers (holding capacity of 55,000 litres).

Permaculture Principles in Action: observe & interact; multi-function; multi-supply; relative location.

From Inspiration to Action

SFHC provides very valuable lessons about linking up a) participatory farmer-to-farmer research that is focused on those farmers' day-to-day needs to know what works well, why and how to do it, with b) research projects led by external partners, driven by more institutional needs in the academic and development sector. Linking these types of research has helped access funding to further develop, enrich and expand the on-the-ground activities. What lessons from SFHC could help your project, community or network in relation to:

a) Project development and evolution, and scaling-up benefits in valuable ways at the local level?

b) Permaculture and agroecology education, teacher training and demonstration that relates to local needs?

Legal Status, Structure & Size: Project started: 2000

The Soils, Food and Healthy Communities (SFHC) organization is a registered, farmer-led non-profit organization, based in Ekwendeni, Malawi with an office in Dedza, Malawi.

There are 21 staff members and over 260 Farmer Research Team members (volunteers).

The organizational structure involves a Board of Trustees, made of up to 10 people, (currently with 6 members) of whom at least half are local farmers with previously involvement in our work (MAFFA and previously) and half of whom are women. There are 2 external members of the board who have been long term collaborators, namely Dr. Rachel Bezner Kerr (at Cornell University) and Dr. Isaac Luginaah (at Western University). The Board of Trustees uses a consensus-based model of decision-making. The Board makes decisions about the activities of SFHC, which are then carried out by a Secretariat who are the staff of the organization. There is also a General Assembly, made up of local farmers, who oversee the work of the Board of Trustees and the Secretariat.

Contact Information

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