Soils, Food, and Healthy Communities

Jessica Bliss, Shane Bryan, and Christine Hadekel, with Beth Medvecky


SFHC participant drying soybeans for making into flour


Using theater and song to teach about agriculture and health


Men pounding groundnuts for flour and for roasting


Participants presenting 28


A rural Ekwendeni-region


A typical maize field, intercropped with legumes

History and Mission of Soils, Food, and Healthy Communities (SFHC)

SFHC is a project based in northern Malawi that aims to improve the health, food security and soil fertility of resource poor households through legume diversification.

The project emerged in the year 2000 from a collaboration between the Ekwendeni Mission Hospital and Malawian and Canadian researchers. In ten years, the project has grown to reach more than 7,000 households dispersed over more than 600 square kilometers.

SFHC has observed that improved children's health and nutrition is a primary motivator for the uptake of new agricultural techniques and crops. The project emphasizes the relationship between sound agricultural methods, crop and diet diversification, and improved health and nutrition status.

Despite having only 4 full-time staff and limited material resources, SFHC has been able to accomplish its mission primarily through its volunteer Farmer Research Team (FRT) members, who are elected by villagers involved with the project.

Cornell SMART Team Fact-Finding Trip

In January, 2011, we traveled to Ekwendeni, Malawi to engage in the following activities:

- To meet with SFHC project stakeholders (including farmers, staff, health workers);
- To gain an in-depth understanding of the SFHC project (including core activities, methods, challenges, and needs); and
- To identify potential areas of collaboration between Cornell University and SFHC.


Preparing kale for steaming and boiling


Preparing sweet potato for boiling and roasting




Mother with child at SFHC seedling

Malawi Development Challenges

- 40% of the population lives in extreme poverty, less than $1/day
- Ranked 160th out of 181 countries in 2009 UNDP Human Development Report
- Severe malnutrition; 21% of children under 5 years old are severely underweight
- 12% HIV prevalence, the 9th highest in the world

Comparative Health Indicators Malawi vs. Other SMART Countries

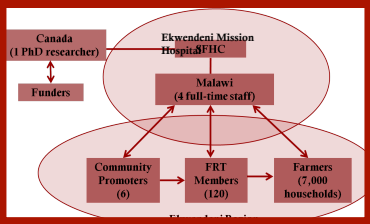
	Fertility Rate (births per woman)	Infant Mortality Rate (per 1,000 live births)	HIV Prevalence	% of severely underweight children under age 5
Malawi	5.5	68	12%	21%
Indonesia	2.2	30	1%	18%
China	1.8	17	0	7%
Belize	2.9	16	1%	6%
USA	2.1	7	1%	2%

Malawi Agricultural Sector

- High population density
- Deteriorating soil quality
- Reduced crop yields
- Low crop and dietary diversity (mostly maize)
- Inequitable land distribution
- Lack of infrastructure


The owner of this field grows maize, sorghum, pigeon pea, and eucalyptus

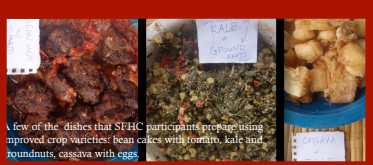
Organizational Structure of SFHC



SFHC Activities

SFHC uses participatory methodology to engage stakeholders in its activities, which include:

- Trainings about new agricultural techniques
- Demonstration plots (integrated crops, new crops, new techniques)
- Recipe Day (for increasing exposure of new crops and providing instruction on how to prepare them)
- Seed and seedling distribution
- Support and education groups for youth and adults living with HIV/AIDS


A few of the dishes that SFHC participants prepare using improved crop varieties: bean cakes with tomato, kale and groundnuts, cassava with eggs.

SWOT Analysis of SFHC

Strengths

- Ability to leverage local and international human and financial resources
- Extensive understanding of the environmental and social context in which it works
- Participatory ideals
- Relevance of its work to stakeholders and participants
- Timeliness of its model and activities relative to the interests of international funders

Weaknesses

- Underdeveloped facilitation skills among FRT members
- Inadequate access to information and technology that would benefit and inform its activities
- Friction among participants due to recent adoption of salary for a small number of FRT members
- Participatory nature of the project means that certain outcomes it seeks to achieve are qualitative in nature and difficult to measure and report to donors and potential donors

Opportunities

- Training and skill-building for FRT members in facilitation skills and adult education would improve the consistency and quality of farmer trainings
- Closer adherence to the participatory ideal and increased community investment would help perpetuate and strengthen its model
- New, stronger, and well-defined partnerships with international institutions and universities would provide access to information and funding

Threats

- Pressure to respond to donor priorities and development trends may require diversion from ideals and/or may not match on-the-ground needs of participants
- Scaling up may cause the organization to move outside of its realm of expertise and become less relevant and less effective
- Partnerships with international and domestic institutions and universities may lead to disputes about goals, motivations, or methods
- Government subsidization of synthetic fertilizers distorts prices and is at odds with the SFHC model.

SFHC/Cornell Collaboration: Summer 2011

Participatory adult education and extension training using a train-the-trainer approach

- We will facilitate a workshop to build FRT capacity in working with adult learners.
- We will provide SFHC staff with templates and references for designing and facilitating effective training sessions.

Nutrition outreach for HIV-affected households

- We will develop six workshops for improving nutrition outreach among HIV/AIDS affected households. Topics include how to use nutrition and diet to manage common opportunistic illnesses, special considerations for pediatric HIV/AIDS cases, and guidelines for lactating mothers with HIV/AIDS.


These two pictures: SFHC participants

Acknowledgments

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