

Farmer Research Networks: FRN-NGO 2013-2018



Farmers comparing sorghum harvests during an exchange visit. Photo author: Project

The R+D system has potential to support AEI but needs to adjust its approach to be more inclusive in order to be effective

START HERE

•This project operates in 6 counties in Kenya's lake zone region, one of the most densely settled parts of the country and a region where poverty, natural resource degradation and food insecurity levels are high. **Weather patterns are changing** and rains are much less predictable. Although finger millet and **sorghum** are traditional crops, they had **all but disappeared** from the region, and what remained was limited to a small number of varieties (2 or 3 at most). In addition, the seed distribution system is poor and **access to seed (and diversity) is often low**.

•The **RT approached** 5 different local NGOs to harness and combine their individual networks and build on their **social capital** with farmers to do better **OxC research for development**.

More farmers and organizations participating in multiple parts of the research process

Farmers note key information and observations, which field officers enter into an **on-line platform** on their phones. Analysis is brought back to **community groups** where farmers **compare and discuss results and preferences**.

•**2015: Experimental errors** due to lack of consistency in data gathering made analysis uncredible

•**2016** Project undertook network-wide experiments that involved **> 800 farmers tested sorghum varieties** developed by **another CCRP project in comparison** to local varieties. Farmers often chose what varieties they wanted to test based on what they saw on a neighbors farm the previous year.

•**2016** Farmers identify the parasitic weed **Striga** as a major barrier to sorghum production, especially **women**, who are very present in the FRN groups.

2017: Sorghum experimentation continued (11 new varieties, 2 local)/ **375 farmers participating**. As well as farmer-initiated experiments with intercropping with grain legumes or forage legume, or applying manure to **control Striga weed**. And finally **researcher-initiated** experimentation on bean varieties with **1000 farmers**, which had a complicated research design that led to missing data and **lack of farmer interest**. Also for first time **farmers were paid** to be data collectors instead of field officers.

Reciprocity: build trust based on shared interests & honest interactions

Secure data for access, aggregation, and future use locally & globally

Capacity building on METI

2017: Project hires **data manager** to analyze centralized data. She also convenes regular meetings with NGO field officers to **increase research understanding and communication**

Enhance quality through capacity building



Farmers watching a video produced by Access Agriculture in West Africa on Striga weed biology and management options Photo author: Project

It is necessary to connect social, technological, methodological, and political capital to achieve widespread change

Farmers appreciate and are **motivated** to participate because of:

- Access** to new sorghum varieties and **seed**
- Opportunity to discuss experiences with other farmers/ **exchange** visits
- Being seen** as a "good farmer"

Farmer testimonies

"We want to test **ourselves** instead of having a field technician tell us what to do."

"The usual demonstration plots are not satisfying because we don't know how they were managed. **FRN allows us to see all stages!**"

Incentivize, support and reinforce farmer participation to responsiveness to farmers' needs, knowledge, problems, concerns and constraints

Value heterogeneity: build on and enhance diversity

Large, networked datasets that reveal useful patterns of performance

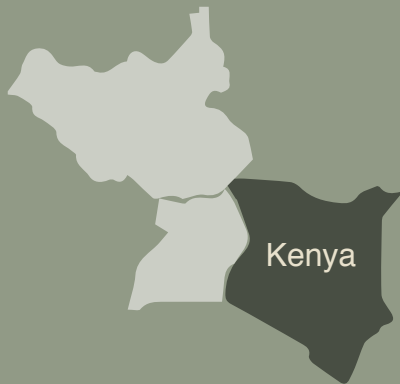
2017: Results from 2 seasons of sorghum variety testing showed **strong OxC patterns** including which varieties perform best under the following contextual conditions:

- Wet** (with accompanying head disease) vs. **dry** (with accompany bird pressure) areas
- Socio-cultural preferences** e.g. grain color, appropriate for children, different preferences by gender were apparent

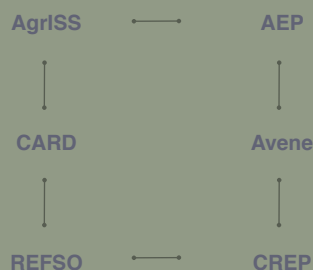
Strengthened R+D sector (more relevant, sustainable, and accountable.)

Influenced breeders about future research priorities (e.g. disease susceptibility)

East Africa Community of Practice



Project Partners



COLLABORATIVE CROP RESEARCH PROGRAM

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