**Farmer Research Networks: FRN-NGO 2013-2018**

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

- 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.

**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**

**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 neighbor’s 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.

**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 accompanying 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)

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**LEGEND:**

- **CCRP Principles**
- **Non-Governmental Organization**
- **Influenced breeders**

**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**

**Value heterogeneity: build on and enhance diversity**

**Reciprocity: build trust based on shared interests & honest interactions**

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

Photo author: Project

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**Project Partners**

- AgrISS
- AEP
- CARD
- Avene
- REFSO
- CREP

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Farmers comparing sorghum harvests during an exchange visit.

Photo author: Project

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