

END HUNGER >>> GROW FARMING
FARM AFRICA

**Annual Report to the British Society of Plant Breeders
December 2012**

Project: Community Based Seed Systems for Drought Tolerant Crops
Location: Kitui County, Kenya
Report period: March 2012 to December 2012
Grant: £ 60,000 over two years

A. Summary of the work undertaken with funding from BSPB

Approximately 83% of Kenya is classified as arid and semi arid lands (ASALs). Rural households in ASALs are characterized by food insecurity caused in part by the increasing incidence of drought and the resulting crop failures and continued growing of traditional low yield crop varieties. The recent trend has been towards prolonged dry spells interspersed with shorter bursts of intense rain fall, thought to be associated with climate change.



Farm Africa, with funding from the EU, implemented a conservation agriculture project in Kitui County, Eastern Kenya for 22 months ending in October 2011. This project demonstrated that conservation agriculture (conserving both soil and water) and using drought tolerant crops (DTCs), such as sorghum, pearl millet, cowpeas, green grams and pigeon peas, can double yields for farmers in ASALs.

However whilst the soil and water conservation structures built under the project can last for up to seven years with minimal repairs, the availability of quality drought tolerant crops (DTC) seeds remains a severe constraint. Agro dealers in Kitui County do not stock DTC seeds due to limited availability and low stock turnover as a result of relatively high prices. This limits access to DTC seeds for farmers who subsequently plant the wrong crops and wrong varieties for the limited amount of rainfall the land receives. This results in crop failure leading to increased food insecurity at the house hold level.

The financial assistance received from BSPB was designed to contribute to a Farm Africa and AMREF partnership project. Farm Africa's role is to implement the conservation agriculture component in Matinyani district, Kitui County, whilst AMREF is working to establish water points for domestic and irrigated agriculture activities as well as promoting hygiene and sanitation.

B. Achievements against Objectives

Objective 1 : To train 10 farmer groups in the production, packaging and selling of quality Sorghum Gadam 1, Green Grams N26 and Pigeon Peas Kat 60/80 DTC seed varieties and link these farmers to seed market outlets and local agro-input stockists.

To date the project has identified six functional groups within Matinyani District in Kitui County. Five of these groups have selected one member (seed producer) to take the lead in the seed production/ multiplication. Training on good agronomic practices and community seed systems was delivered to 206 group members including those specially selected as seed producers.

A total of seven hundred and fifty kilograms of assorted DTC seeds were sourced from Kenya Agricultural Research Institute (KARI) and distributed to the an initial 5 groups of seed who have already planted them. Crop acreage analysis as per the seeds distribution indicate that if all the DTC seeds are planted, a total of 67.5 acres will be under the three varieties of DTC within the five locations of Matinyani District. Of note is that one variety of seed; pigeon peas (cajaunus) Kat 60/80 was replaced with Peginon pea (Mbaazi 2 kgs) under the recommendation of the Ministry of Agriculture who advised that this could perform better than the former.



The DTC seeds were distributed in early October 2012 for the October - December rain season. The farmers started planting as early as October in order to maximize on the rains. Depending on the crop maturity rate, the farmers are expected to start harvesting from February 2013. The yields are expected to improve on the community seeds system in the area. The produce will be treated and packaged in small quantities. The MoA staffs and other research institutes will be actively involved in the implementation of these so as to ensure the quality of community seeds systems. The project has started engaging with some stakeholders such as KARI, Syngenta, KEPHIS and local agro-vets on the seed production and packaging in readiness for local and surrounding market when the crop is harvested.

Self Help Group	# of Group Members	Sorghum (Gadam in Kgs)	Green Gram (N26 kgs)	Pegion pea (Mbaazi 2 kgs)
Muuu	70	103	103	103
Kasuve	26	37	36	36
Katikoni	25	37	37	37
Mutindi	17	25	25	25
Kanini Kaseo	31	48	49	49
TOTALS	169	250	250	250

Objective 2 : To train the Ministry of Agriculture staff to support and disseminate the use and multiplication of improved DTC varieties

A training workshop for government of Kenya staff has been carried out during the third quarter of 2012. The training covered the following areas;

- The importance of DTC seed varieties
- Participatory methodologies
- Promotion of farming as a business rather than subsistence activity

A farmers' field day has been held to demonstrate soil and water conservation techniques in liaison with the government extension agents. Other stakeholders have also been engaged such as Kenya Plant Health Inspectorate Services, seed companies (Syngenta) and KARI and in particular actively participated in developing a training curriculum for training farmer groups on DTCs and agronomic practices.



C. What difference has the work made?

The project began in March 2012 so it is too early to be able to report on outcomes and impact. We have distributed DTC seeds and identified five seed producers for in-depth training. We will be able to provide more detailed feedback in the next report.

D. What have we learned?

Our experience to date shows us that the communities are very receptive to the initiatives proposed within the project as they recognise that the current crops are not successful and are leading to increasing food insecurity.

E. What difficulties did we encounter?

We have identified a number of challenges including the fact that the farm sizes are small and this has limited the choice of potential seed producers. The current drought has meant that a number of water sources have dried up meaning that we have had to prioritise the construction of eight water points detailed in the overall project plan. The target community has so far developed the culture of growing maize and beans season after season despite the crop failure every time.. To reverse this trend, a lot of awareness on the importance of DTCs has been going on. It is thus expected that the target and wider community will be able to access the seeds from the developed community seed systems.