

Beans Seed Supply Systems as a Business: Empowering Communities to Improve Livelihoods in Kasungu - Central Malawi.

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Improved varieties developed by the national bean program in Malawi in collaboration with CIAT have delivered high yields at the research station, and better yields (above 700 kg ha⁻¹) under *farmers' management conditions* than the national average yields (450 kg ha⁻¹). Such yield gains obtained under farmer management, have been achieved with breeding advances which address specific farmer-felt stresses: *greater resistance to angular leaf spot, anthracnose, bean stem maggot and better tolerance to low soil fertility and drought*. Furthermore, the new varieties have solid marketing characteristics as their selection is rooted in domestic and regional "market classes" and done with the participation of consumers, mainly farmers and traders.

Bean Seed Problems

However, the wider utilization of improved varieties is hampered by many factors, including: 1) Inadequate exposure of farmers, consumers, traders, and other rural service providers to potentially promising varieties. 2) Unavailability and inaccessibility of seeds of these varieties. Studies throughout the region show that the bulk of farmer bean seed is supplied by the local sources-- farmer saved/traded seed and local seed markets. Unfortunately, these local sources are often disconnected from the innovators of new bean varieties (Department of Agricultural Research (DAR)) as there are few established mechanisms for facilitating farmer exposure to new materials.

Enabling Rural Innovations (ERI)- Interventions

In 2003 DAR working on beans in Malawi, via ERI of Centro Internacional de Agricultura Tropical (CIAT) and PLAN-Malawi as a catalyst, started to foster strategic alliances so as: a) to expose farmers to improved bean varieties, via participatory variety selection (PVS) methods and b) develop more integrated seed supply systems. These client-oriented thrusts were developed in partnership with various local actors: community based organisations (CBOs) farmer organizations (FOs) and government-related organisations. The principles of ERI are based on mutual and collective learning processes that aim at empowering rural communities by strengthening their social organisation and entrepreneurial skills, and encouraging them to produce what they think can make a difference in their livelihoods.

Such initiatives in Bokosi and Chinseu villages in northern Kasungu started with participatory diagnosis where the communities came up with visions, and then identified their strengths and opportunities. Based on such processes they selected bean production as an agroenterprise, which could make a difference in their livelihood. Through participatory experimentation with the new bean varieties provided by the DAR for evaluation, farmers in these 2 villages selected 7 varieties (Mkhalira, Kabalabala, Maluwa, Kholophethe, Kambizi, Sapatsika and Napirira). In addition to variety evaluation, farmers also experimented with bean production management options as well as bean pest and diseases management options. As the farmer experimentation plots together with the demonstration plots created awareness and generated wide interest for the new varieties, a parallel initiative of bean seed

multiplication was put in place to cushion the anticipated demand for seed of the new bean varieties.

Bean Seed Multiplication

In addition to participatory experimentation with the new bean varieties, some selected individual farmers were provided with bean seed for multiplication. This initiative was to create a sustainable seed delivery system which could efficiently provide a service to the communities, but at the same time act as a viable source of income for farmers/traders in the area. The first group of seed growers was 10 farmers in each village (Bokosi and Chinseu). These farmers were provided, each with 10 kg of seed of one variety, with the arrangement that each farmer would pass on 10 kg of seed to a new farmer after harvest – thus gradually increasing the number of seed growers. The farmers received training on how best to produce a bean seed crop, and how to manage bean pests and diseases. Farmers were also trained to treat bean seed production as a business. Training manuals and seed production booklets including pest and diseases guides were developed in English as well as in local languages for farmers to use. The training processes proved to be very useful and farmers gained a lot, which did help them to succeed and expand their bean seed production.

Taking Bokosi village for example, the number of seed growers had been steadily increasing, and so did the amount of seed produced over the 3 years (Table 1). The situation in Chinseu village was similar, although the data is not shown. In each village the communities had seed storage facilities (banks), where farmers brought their excess seed for sale to other members of the community. In addition some seed was traded through local markets. The general trend was that the growers kept part of their harvest as seed for their own needs and sold the rest.

Table 1. Bean Production and Sales Statistics

Season	No. of Farmers	Seed Planted	Prod (Mt)	Sale (Mt)	Price \$/kg	Value (US\$)	Sale Point
2004	10	100	1.95	1.8	0.4	771.43	Seed Bank
2005	25	250	2.925	2565	0.54	1374.10	Nkhamenya Market
2006	36	360	7.020	6.0			Not yet by June 2006.

Source: CIAT Malawi, June 2006

As indicated in the table above the enterprise started with only 10 farmers in 2004 and the number of farmers had increased over time to 36 in 2006. Likewise the quantity of seed produced and sold had also increased. The club's plans for the 2006/07 season were to embark on serious bean seed production by expanding the land area allocated to beans by each farmer as well as increasing the number of farmers producing bean seed. The intention was to develop an agro enterprise plan (Business Plan) and form a well organised structure which would operate like an association to supply seed within the communities and others farmers nearby, but also to supply seeds to other parts of the country.

Lessons learnt

It is interesting to note that, several farmers from surrounding villages have been accessing seed of improved bean varieties through the local grain banks, which gets seed from the growers and resells to farmers within the area.

As Chinseu Village is very close to the Zambian border it is reported that the improved bean seed varieties grown this village have already crossed the border and some farmers in Zambia are planting improved bean varieties from Malawi.



A Photograph of one of the farmers telling a story - how beans have changed his livelihood.

Changes in Livelihoods

It is very clear that farmers in the two villages are realising tangible benefits from the bean enterprise. Some farmers in both villages have managed to save money from bean seed sales and started off-farm micro enterprises like grocery shops. Mr Clifford Nyirenda a farmer and a chairman of the participatory market research (PMR) committee in Chinseu is a clear testimony of what ERI has done in improving the living standards of marginalized farmers. Mr Nyirenda opened a grocery shop and built a permanent house with burned bricks and Iron sheets. He also bought a sofa set for the house and managed to buy fertilisers, which he applied to his maize crop during the 2005/06 seasons. He has harvested approximately 6 metric tonnes of maize, which is more than enough for the household food security and he planned to sell the surplus.