

Introduction:

There are several factors that limit bean production and productivity in Malawi, and among them is the limited availability of seed of recommended bean varieties as well as the limited popularization of already released varieties. In 2007 a project was initiated to use the participatory variety selection (PVS) processes in bean variety evaluation. This was done through collaborative effort between the International Centre for Tropical Agriculture (CIAT), the Department of Agricultural Research Services (DARS), the Department of Agricultural Extension Services (DAES) and several NGOs and their partners (farmers and traders) (Table 1).

Objectives:

- To identify/verify farmers' bean variety preferences in relation to diverse agro-ecological and end users' systems (market, food security, gender—traders preferences)
- To enhance skills and knowledge of partners in various aspects, such as Participatory Variety Selection (PVS) and decentralized seed systems
- To develop impact-oriented bean seed production and delivery systems of preferred varieties serving a range of end-users

Clients' selection criteria:

Some of the preferred varieties (NUA59) meet the market grain types



1. Large seeded and good grain colour for local markets
2. Early maturing hence quick cash and shorter hunger periods
3. Resistant to pest and diseases
4. High yielding and well filled pods

Linking PVS and on-farm seed production –Malawi:

A group of women farmers in a community bean seed multiplication plot in Kaluluma area



Kaluluma, north of Kasungu district a farmer group organized by the government extension agents have been increasing seed of selected bean varieties from PVS trials.

- In 2007 - They started with 20 varieties, 82 seeds each
- In 2008 - They had 120 kg of assorted varieties, and they had shared seed to 4 other communities, giving them 82 seeds of each variety per community

Experiences:

1. Through PVS farmers and traders had access to a range of varieties and they use their own criteria to choose varieties based on socio-economic and agronomic characteristics.
2. PVS also created awareness and enhanced farmers' access to seed of improved varieties of beans of their choice.
3. Out of the potential 20 varieties tested on-farm and on research stations, 3 have been released namely NUA45, NUA 59 and VTTT924/4-4, using data generated from the stations as well as on-farm

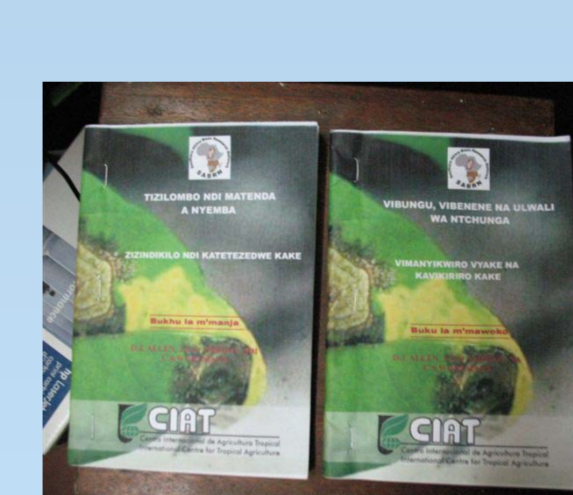
Table 1: Collaborating partners and their roles

Category of Partners	Roles
Research	Variety development, production of breeder/foundation seed Provision of information on new varieties and resource manuals Enhance Partners' skills and knowledge on how to conduct PVS
Development partner organizations	Farmer mobilization, to facilitate decentralised variety testing Training farmers on PVS and support seed production of preferred varieties Scale up to other neighbouring farmers and farmers organizations
Farmers (individual or groups)	Testing, selecting and feed back on the potential genotypes Carrying out local seed production and supply to other farmers Promote the preferred genotypes
Local traders	Provide feed back to farmers and research on market preferences Provide linkages with market Move seed of preferred varieties beyond local zones.

Procedures:

1. Several members of staff from the collaborating organizations were trained in use of participatory methodologies which formed the foundation for the project.
2. The national bean research program under DARS, with support from CIAT-Southern Africa Bean Research Network (SABRN) assembled and increased seed of 20 potential bean varieties/lines.
3. Varieties were evaluated both on-station as well as on-farm, using PVS approaches during the rainy season.
4. The project started with 33 sites in 2007; increased to 36 in 2008 and more than 40 in 2009.

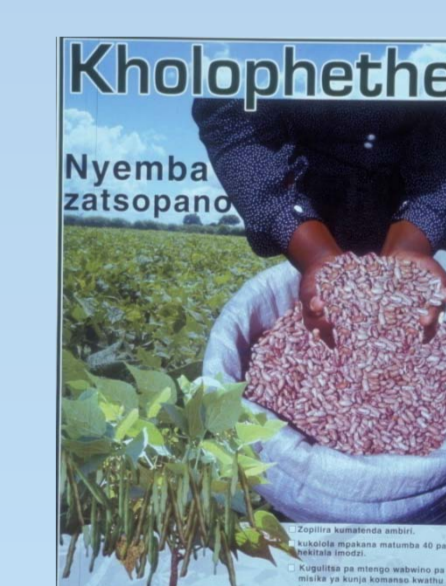
Information and promotional materials: Small books were developed to inform stakeholders of the bean pests and diseases as well as on how best to produce bean seed. In addition there were posters to promote existing varieties



Books



Brochures



Posters



PVS processes:

Farmers grouped by gender



Using different colors of ribbons to distinguish the best from worst varieties.



Resulting in men and women selected varieties



Lessons learnt:

1. The more scientists interact with farmers and traders the more they learn of the clients needs in variety selection.
2. There is increased demand for new bean varieties as new markets evolve and urbanization increases
3. Traders play a great role in influencing varieties that farmers grow
4. With climate change farmers are increasingly keen to get varieties that withstand the vulgarly of weather: early maturity, drought, heat, diseases and pests.

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