

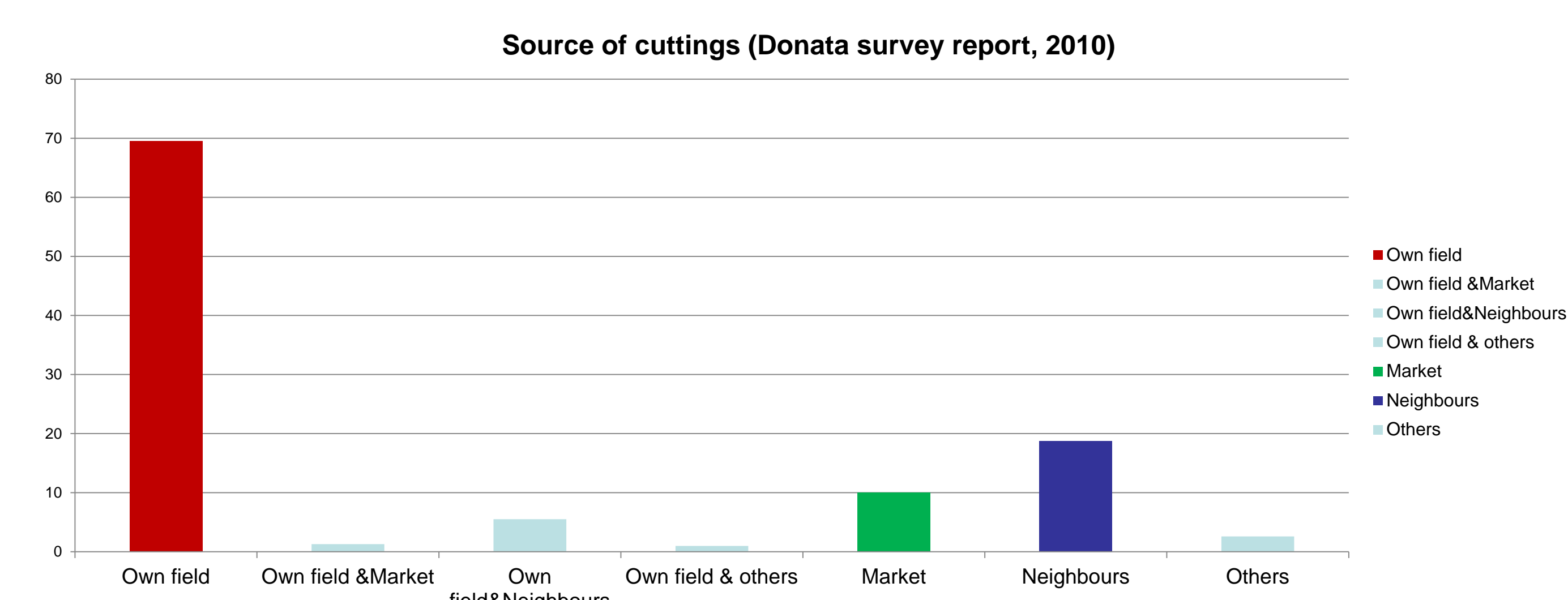
Improving farmers' access to sweetpotato clean planting materials through partnerships in the value chain

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Introduction

Sweetpotato is an important food security crop in Rwanda grown mainly by women for household consumption and as a source of family income (Ndirigwe, 2006). Different surveys indicated sweetpotato production is encountering numerous constraints, among them the availability of clean planting materials of most varieties but more so of the new Vitamin A rich Orange Fleshed Sweetpotato. Different findings showed that sweetpotato planting material is most traditionally obtained within farming community from previous crops or free exchanged from neighbours or rarely sold between local farmers (Njeru et al; 2008). However, those kind of traditional vine sources usually fail to provide sufficient planting material at the beginning of the rains due to prolonged shortage of planting material during dry season, delay planting, prevent the crop from satisfying demand, and limit its potential role as a security food crop to producers and consumers (Gibson, 2008; Njeru et al; 2006). Above all, this system is not able to maintain superiority of genotypes and health along the sweetpotato production chain.

Main sources of sweetpotato planting material



Planting material originates almost entirely within the farming community (Ndirigwe et al. 2007)

Objective:

The main objective was to establish an **efficient sustainable** seed system for **multiplication** and **promotion of OFSP** cleaning planting material to different categories of farmers with clean planting material in sufficient quantities, at the right time, in an appropriate physiological state, vigor, and health.

Methodology:

Through a thorough needs assessment, four districts were identified for OFSP promotion. Farmer based approach through innovation platforms was used to develop an effective, rapid and sustainable chain for multiplication and dissemination of clean basic sweetpotato planting material from in vitro lab to subsequent multiplication sites. Public, private, developmental organizations, and farmer group's partnership was paramount to clean and multiply planting materials as well as identifying, organizing and training of farmers' groups.

Results



Multiplication of clean vine through tissue culture at Rubona lab (RAB)



Hardening of clean plantlets at Rubona screen house

Around 46,000 plantlets of OFSP varieties were multiplied in Rubona tissue culture lab and 1,212,000 cuttings of Cacearpedo, Gihingamukungu and Ukerewe were produced in primary multiplication fields at Rubona and disseminated to farmer groups and contracted farmers in different sites.

Different trainings were organized to individual farmers, groups and cooperatives and extension agents' to increase knowledge capacity and enhance skills. Increase knowledge sharing through farmer-to-farmer meetings and field days to improve access to information for OFSP farmers which will enable them respond to market needs.

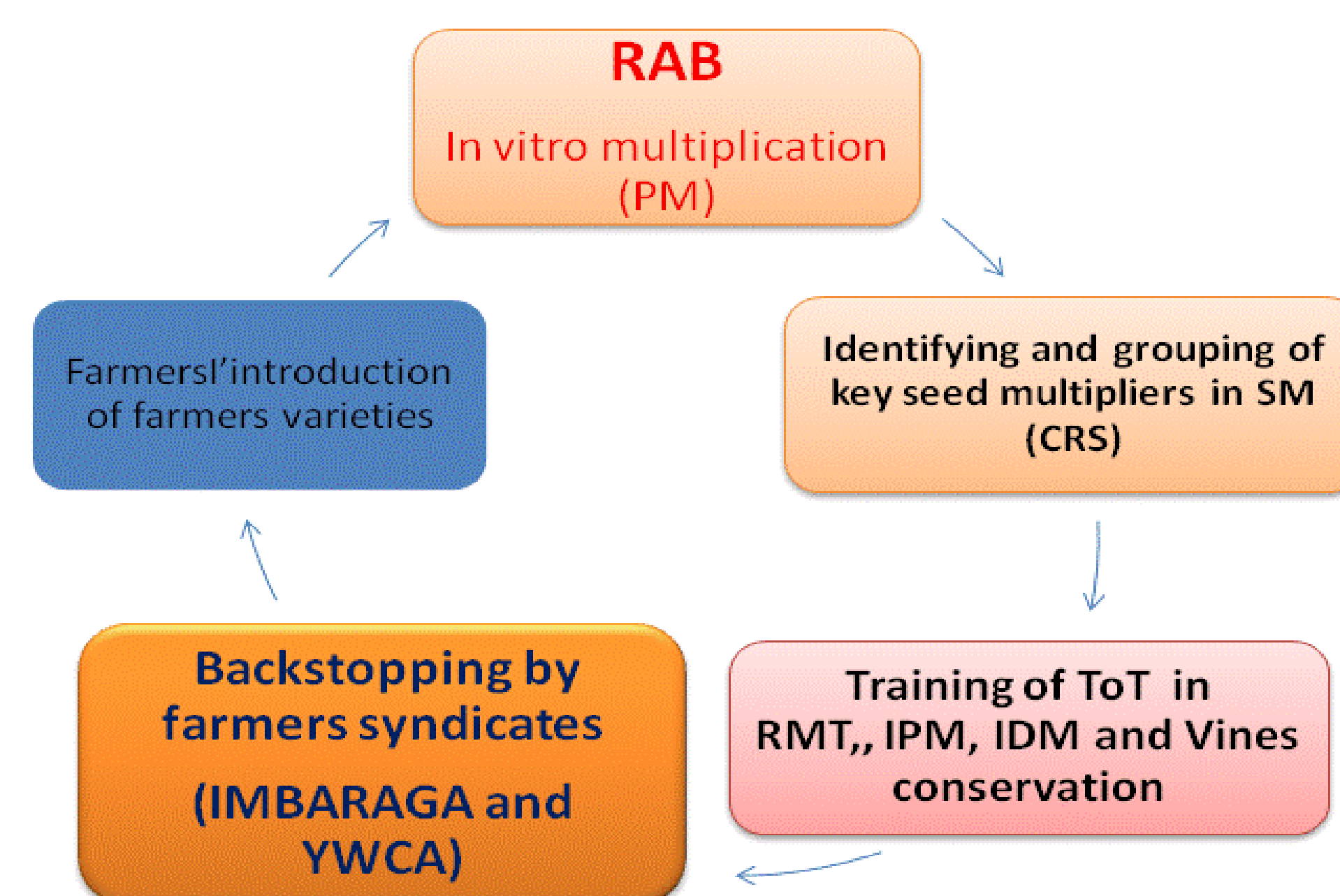


Primary multiplication of vines at Kigembe research station



Big sweetpotato roots production at farmer group farm in Muhanga

Model for improved sweetpotato seed system



Conclusion

Most of the new varieties namely, Cacearpedo, Gihingamukungu, and Ukerewe possess preferred traits by farmers compared to their local ones. Nowadays, farmers came to know the importance of using clean planting cuttings as a factor to increase productivity when planted at right time. Initial comparison of harvest from two consecutive seasons, 2012 A and 2012 B, the study showed an increase of yield of 27% for Cacearpedo, 22% for Ukerewe and 71% for 97-062. This can be attributed to improved technical support, adoption of better agriculture techniques, healthy vines, and on time vines availability. The use quality planting material coupled with proper training can significantly increase farmers yield per unit area within short time period of time. Using evidence based advocacy and healthy vines have positively changed policy makers decision on sweetpotato and improve its image.

Outcomes:

- Provision of clean planting material and training farmers on proper vine maintenance has increased the production of sweetpotato roots by project farmers from 4 ton per ha at the start of the project to about 12 tons per ha a 200% increase.
- Establishment of strong new collaborative linkages through networking between stakeholders including local authorities for sweetpotato partnership has increased sweetpotato visibility.
- Farmers are able to produce and conserve about 20% of their quality sweet potato planting material needs and we hope this will increase with conservation tunnels construction.
- In most districts, more than 80% were women and 20% men in the sweetpotato seed system

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