

# Scaling up technologies in orange-fleshed sweetpotato using the Agricultural Innovation System

to address food and nutrition security in Eastern and Central Africa

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## What is the problem?

A key challenge in existing sweetpotato value chains has been to improve the articulation between demand and supply for both roots and planting material. Farmers argue that they lack a market for their produce and yet market traders and potential processors face challenges in sourcing a consistent supply of quality roots. Certain segments in the value chain are not realising their full potential due to insufficient coordination. For example, coordination among producers to plan production could smoothen out seasonal fluctuations in supply and prices; while collective action to develop bulking and collection points could reduce transaction costs for marketing and increase margins for small-scale farmers. Therefore, while there have been a number of efforts to promote and disseminate OFSP technologies, they have not been fully successful because there has been insufficient attention to the institutional linkages and an insufficient flow of information to ensure a fully functioning value chain from input supply through production, post harvest practices and supply logistics, to meet consumer demand. In particular there has been insufficient engagement with the private sector, to search and evaluate market driven opportunities, e.g. medium scale food manufacturers who could develop composite flours for weaning food or partially substitute OFSP for wheat flour in bakery products.

A number of lessons have been identified during the implementation of previous projects that focused on promoting orange-fleshed sweetpotato (OFSP) technologies such as the Dissemination of New Agricultural Technologies in Africa (DONATA) project. These included the limited capacity among in-country stakeholders to work as part of an Agriculture Innovation System (AIS) and undertake value chain analysis and up-grading to support the scaling up of technology adoption and dissemination. Platform facilitation, communication and advocacy skills are required along with mechanisms for information exchange, learning and knowledge generation. The range and capacities of actors participating in platforms needs to be broadened to include components of an innovation



OFSP-AIS implementing partners from Kenya, Tanzania and Uganda celebrate the end of their PMCA training course conducted by CIP in April 2012 in Kampala, Uganda. (credit: M. Ogwal)

system which have been missing in previous efforts, e.g. enterprise and business skills, as well as access to financial services to support farmer investment in technology development and innovative marketing arrangements. The presence of private sector market actors is crucial to drive innovation processes around real market opportunities. There has also been lack of a clear conceptual framework and methodology with well-structured research questions to support learning and documentation about the application of an AIS perspective in an operational context for scaling up technology-adoption processes. An appropriate framework can guide both the scaling-up process and learning and documenting lessons from empirical experiences of scaling up.

## What do we want to achieve?

We are working to achieve more effective and gender-equitable sweetpotato value chains, ensuring that as the commercialization of sweetpotato increases the benefits are equitably shared among men, women and young people. We want to document the lessons from using an agricultural innovation systems approach in the promotion and dissemination of OFSP technologies and share these widely in the East and Central Africa region.

## Where are we working?

The project is being implemented in Western Kenya (Ugunja and Gem Districts), Lake Zone Tanzania (Muleba and Misenyi Districts) and



Science for a food secure future



The Sweetpotato for Profit and Health Initiative (SPHI) is a ten-year initiative designed to improve the food security and livelihoods of poor families in Sub-Saharan Africa by exploiting the untapped potential of sweetpotato. It seeks to reposition sweetpotato in food economies of Sub-Saharan African countries to alleviate poverty and under-nutrition in 10 million African families in 10 years.



■ Group work discussions during the PMCA training. (credit: M. McEwan)

Northern Uganda (Kitgum and Pader Districts). The Lake Zone Agriculture Research and Development Institute (LZARDI) of Tanzania is leading the implementation of the project. The International Potato Center (CIP) is providing technical support and capacity-strengthening.

#### ✦ Who are we working with?

In Kenya, Ugunja Community Resource Centre (UCRC), an NGO which is developing information-based products and services leads, is being supported by the Kenya Agriculture Research Institute (KARI). In Uganda the international NGO, BRAC, which has expertise in the provision of micro-finance training and credit, leads with support from Gulu University. In Tanzania, LZARDI leads with support from KOLPING Society of Tanzania an NGO.

#### ✦ How are we making it happen?

We are using the Participatory Market Chain Approach (PMCA) to support the identification of investment opportunities for OFSP, develop new products and processes, test and launch said products in the market. The application of PMCA encourages a systematic approach to the diagnosis and up-grading of value chains. Through joint market assessments and market development, trust is built amongst value chain actors who work together in thematic groups that are formed on the basis of a common interest in a feasible market opportunity. PMCA offers space for interaction, joint planning and delivery of new products, services or institutions arising out of commercial, technological or institutional innovations.

We are also providing capacity strengthening in communication for behaviour change to support different attitudes and practices in relation to the

production, consumption and marketing of sweetpotato among men, women and youth.

#### ✦ What have we learned so far?

In the pursuit of developing value chains, it is important to pay special attention to the gender dynamics that may impact the actors and beneficiaries of the process. Such dynamics necessitate the use of gender tools that assist in mapping to identify gender blockages and actors who are often “invisible”. This analysis is then followed by an action plan that focuses on unlocking the constraints so as to ensure equitable benefits for all categories of actors. The ‘tool kit’ assists in planning for and enabling gendered access to resources and control over benefits, which in turn influences decisions, leadership and empowerment. We are taking advantage of previous PMCA applications for a variety of crops which have been conducted in South America, Eastern Europe, Asia and of course Uganda itself. We are hoping that lessons learnt from our experience of “engendering value chain analysis and development” will also be shared with other countries.



■ Innocent Ndyetabura (Maruku Research Station, LZARDI, Tanzania) being interviewed by Joseph Sekiku (Journalist from Fadedo Radio Station, Kagera Region) at the OFSP-AIS Tanzania Inception Meeting. Innocent is explaining the importance of quality and clean sweetpotato planting material as the foundation for future value chain activities. (credit: M. McEwan)

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