DONATA Enhanced uptake and adoption of orange-fleshed sweetpotato (OFSP) technologies in Ethiopia, Kenya, Rwanda, Tanzania and Uganda

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The DONATA project is working in Ethiopia, Kenya, Tanzania, Rwanda and Uganda. Its overall objective is to improve livelihoods and increase economic growth for resource poor farmers in East and Central Africa (ECA). DONATA works through multi-stakeholder platforms consisting of National Agriculture Research Institutes (NARIs), non-governmental organizations, community based organizations, farmer organizations, private sector, public sector extension agents and universities. Members of the Innovation Platforms for Technology Adoption (IPTA) work together at district level to increase production, consumption and marketing of pro-vitamin A-rich orange-fleshed sweetpotato (OFSP) fresh roots, planting material (vines) and processed products. This is being achieved through transfer and promotion of proven, available and emerging technologies for production, storage and processing of OFSP into higher value products, development of agro-enterprises, and by linking farmers to markets. This will strengthen food security and nutrition, and increase incomes and employment opportunities – all of which will contribute to improved livelihood and economic growth in ECA. Lessons learned from the implementation of the IPTA approach for promoting OFSP innovations and technologies will be translated into principles for scaling out and scaling up.

What has been achieved to date?

Multiplication and promotion of clean improved orange-fleshed sweetpotato planting materials:
Eleven OFSP varieties are being promoted: Ejumula, Kakamega, Kabode, Vita, Carrot C, Jewel, Cacarpeado, Gihingamukungu (97-062), Tulla, Kulfo and SPKO31. Estimated area under OFSP seed vine multiplication in each country was 57 ha in 2009; 97 in 2010; 93 ha in 2011 and 74 ha by June 2012.

Jean-Marie Vianny (JMV) and Lydie Kankundiyse (RAB, Rwanda) taste OFSP based biscuits. JMV Habumuremyi of Ibyiwacu Company Ltd. is a member of the “IPTA East” near Bicumbi in Rwanda. As part of the farmers’ cooperative Duhange, he started multiplying vines and supplying roots to local schools. With support and ideas from other IPTA members he became involved in processing OFSP. He now contracts surrounding farmers to produce roots for his expanding bakery business. The baking oven and product development was supported by DONATA. He uses pureed orange-fleshed sweetpotato in a ratio of around 40:60 with wheat flour. (credit: M. McEwan).

Technologies in uptake pathways include:
Rapid multiplication techniques, vine conservation, disease identification and management. Value-added products which are being promoted include: OFSP flour, snack foods, baked products, and juices in addition to boiled and fried fresh roots. Pilot processing units have been established in Kenya, Tanzania, Rwanda and Uganda. Small-scale sweetpotato processing equipment for promotion and demonstration including peelers, chippers, and slicers are being piloted in all countries. Linkages between farmer groups and Business Development Service (BDS) providers are happening in Lira, Uganda and Mwanza, Tanzania. Marketing linkages for OFSP have been strengthened in particular in Kenya, Rwanda, Tanzania and Uganda.

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.
Capacity strengthening activities: As of June 2012, 772 trainers and 4,474 farmers have been trained in various aspects of OFSP and value-addition technologies. Since 2011, increased emphasis has been placed on training for processing and marketing. Sixty-eight trainers have been trained in marketing and enterprise development. Also in 2011 a two-phase training in innovation systems approaches was conducted with participants from five countries. This has benefited the functioning of the IPTAs. IPTA exchange visits have taken place in Kenya and Tanzania, while Rwandan colleagues have visited Uganda OFSP activities undertaken by the Soroti sweetpotato producers association (SOSPAA). Five MSc. students should complete their degree requirements by the end of 2012.

Communication activities: Leaflets, posters, stickers, aprons, umbrellas and calendars promoting various aspects of OFSP technologies have been distributed. Regular field days are held in all countries and radio shows and “phone-ins” have been hosted in Uganda, Kenya and Rwanda. OFSP stands at agricultural shows, science weeks and international exhibitions have been extremely successful and OFSP exhibits have been awarded first prize in Rwanda and Tanzania.

What are we learning?
An understanding of an agricultural innovation system approach by the IPTA members is important given the context in which innovations and technology adoption take place. Diverse technical and facilitation skills in addition to attitudinal changes are required for the effective operation of the innovation platforms for technology adoption. The IPTAs handle a wide array of activities, making capacity development of members to cope with these needs essential. Interactions with a wide range of actors within and outside the IPTA spurs activities and allows for iterative learning and knowledge transfer amongst beneficiaries.

The configuration of the IPTAs varies. An IPTA may be comprised of sweetpotato value chain actors only; service providers only, or a combination of both. Coordination, good communication and having a common vision and goal are of utmost importance.

The membership of the IPTAs is dynamic, allowing for entry of new members and departure of old ones. This flexibility has enabled the proliferation of novel ideas from new actors who invigorate the platform, but at times leaves a gap that would have to be filled for optimal functioning of the IPTA. While

Traders from Sengerema and Mwanza, Tanzania meet to discuss with Adventina Babu (LZARDI) how to link the farmers from whom they normally buy white-fleshed sweetpotato roots to vine multipliers of orange fleshed sweetpotato varieties. (credit: M. McEwan).

Joint analysis, planning, and implementation among the different IPTA members is of utmost importance, there are many positive spin-offs. These include: showing concrete linkages between production (i.e. agriculture) and consumption (i.e. nutrition); greater advocacy for OFSP; and influencing other organisations to adopt a multi-stakeholder platform and value chain approach.