

Building an Effective Sweetpotato Community of Practice

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Building an effective Community of Practice (CoP) is essential if the goal of improving the lives of 10 million African households by 2020 is to be met. The Sweetpotato "Speedbreeders" built an effective CoP during SPHI Phase 1, and during Phase 2, three additional CoPs will be supported.



Participants in 2014 Speedbreeders meeting held in Blantyre, Malawi

What is the problem?

Compared to its value relative to other food crops in Sub-Saharan Africa (SSA), there has been a major underinvestment in sweetpotato. A disproportionate share of agricultural budgets is devoted to cereal research and dissemination and to non-food cash crops. Consequently, there is a dearth of researchers addressing bottlenecks in sweetpotato production and utilization and development agents knowledgeable in management techniques. There is also a dearth of adequate data on how different sweetpotato varieties are performing and spreading across the region.

What do we want to achieve?

We want to see a growing and vibrant community of practice (CoP), with sweetpotato researchers and development agents able to obtain and apply sweetpotato knowledge effectively. By developing tools, such as gender-sensitive protocols for data collection, and sharing information among stakeholders, we want to build synergy and avoid unnecessary duplication of effort.

More broadly, we want to increase breeding capacity to ensure the continuous production of high yielding, disease-resistant, nutritious varieties adapted to local agro-climatic conditions and consumer preferences. Any African country should be able to access these improved varieties. We will establish Sweetpotato Support Platforms (SSPs) at the sub-regional level (East and Central Africa; Southern Africa; West Africa), especially to support breeding and germplasm exchange. We want to change the image of sweetpotato from being a crop of the poor to being a healthy food for all.

To prepare for Phase 2 of the Sweetpotato for Profit and Health Initiative (SPHI), we conducted

surveys and consultations among partners to see how to improve the platform concept to better serve the CoP.

Where are we working?

SSPs have been established within each major sub-region of SSA. For East and Central Africa, the SSP is hosted at the National Crops Resources Research Institute (NaCRRI) in Uganda and the Kenyan Plant Health Inspection Service (KEPHIS). For Southern Africa, the SSP is based at the Agrarian Research Institute of Mozambique (IIAM) in Maputo. The West Africa platform is located at the Crops Research Institute (CRI) in Kumasi, Ghana.

How are we making it happen?

Building the next generation of sweetpotato breeders is core to this effort. Working in close collaboration with the Alliance for a Green Revolution in Africa (AGRA), CIP breeders based at each SSP are backstopping national program breeders in 12 SSA countries and co-supervising PhD candidate breeders being trained in AGRA-sponsored programs. Annual sweetpotato speedbreeder meetings are held to learn the latest methods and share findings. Our goal is to have at least 6 new sweetpotato breeders in SSA by 2016 and all national programs using the *CloneSelector* Excel-based program to record and analyze their sweetpotato trial data based on a standard protocol.

At each SSP, capacity will exist to conduct virus testing and produce disease-free planting material and provide all national programs within SSA access to that material. Each SSP will have a quality laboratory, capable of quickly determining the nutrient composition of breeding material.

SSP meetings are being held in each sub-region

to enable sharing of new skills among CoP members. Core to the CoP effort was the establishment of the Sweetpotato Knowledge Portal (www.sweetpotatoknowledge.org) in 2010 – a website that enables users to contribute their own knowledge as well as learn from others. Standardized gender-aware survey modules for conducting baseline and endline surveys for interventions using sweetpotato have been developed and validated. Since 2011, the Reaching Agents of Change (RAC) project has enabled the expansion of SSP activities to include communication, advocacy, and training components (see RAC briefs).

❖ What have we achieved during Phase 1 (2009-2014)?

1. SSPs in each sub-region are serving as centers for population development, germplasm clean-up, maintenance and exchange and are striving to meet international standards of operation.
2. Quality nutrition labs with Near Infrared Spectrometer (NIRS) capacity were established and are functioning in Mozambique, Ghana, and Uganda.
3. Annual *speedbreeder* meetings have been held. In year 5, the meeting was held in Blantyre, Malawi with 12 SSA countries and United States and Peru represented.
4. Five PhD sweetpotato breeders have graduated, and an additional 6 are in the pipeline.
5. SSP meetings were held twice a year in each sub-region, often linked to other professional meetings and increasingly focused on specialized topics.
6. After consulting stakeholders, in 2014 we started transforming twice yearly sub-regional SSP meetings into annual technical CoP meetings at the SSA level. The first meeting of the Marketing, Processing and Utilization CoP was held in Kigali, Rwanda in 29-30th January 2014. The first meeting of the Seed Systems and Crop Management CoP was held in Entebbe, Uganda in 14-15th April 2014 and the last SSP for West

■ Participants in CPro and Stata training in January 2014



Africa on 7-8th April 2014 in Bolgatanga, Ghana.

7. Seven West African scientists were sponsored to present at the 16th Triennial International Society for Root and Tuber Crops (ISTRC) Meeting, held in Abeokuta, Nigeria (24-28 September 2012).
8. Thirteen West African scientists were sponsored to present at the ISTRC-Africa branch meeting held in Accra, Ghana (29 September through 4 October 2013).
9. Nine papers (4 of them keynote papers) were prepared by SASHA CIP and partner scientists for oral presentation at the 9th Triennial African Potato Association meeting held in Naivasha, Kenya 1-4 July 2013. In addition, 8 other SASHA funded scientists prepared posters.
10. As of 1st July 2014, the Sweetpotato Knowledge Portal had 600 registered users and 7,004 content items. In year 5, the site registered 14,664 visits.
11. SASHA financed rehabilitation of germplasm related facilities at the Kenya Plant Health Inspection Service (KEPHIS), Kenya and introduced bar-coding equipment for tissue culture management in 2011. KEPHIS, which services all of SSA, obtained ISO 170125 accreditation for sweetpotato in December 2013 from a Kenya accreditation agency, a first for KEPHIS.
12. The gender specialist developed a one day course entitled *Learning to use a gender lens in implementing sweetpotato research and development activities*, based on 4 case studies drawn from SASHA research work and implemented it at the SSP for East and Central Africa in October 2012 and for Southern Africa in November 2013.
13. Fifteen scientists attended a two week long course (6-27 January 2014) on the data entry package CPro and use of the STATA statistical package, taught by Ellen Payongayong of Michigan State University. The training will enhance capacity to process baseline & endline surveys.
14. Nine different sweetpotato projects met at the annual SPHI technical meeting in September 2012 in Nairobi, Kenya and again in October 2013 in Kumasi, Ghana to share experiences.
15. Fifty-two students have linked their undergraduate or graduate research projects to the SASHA project. Six were fully sponsored by SASHA and 37 partially supported.



Led by CIP, the ten year Sweetpotato Action for Security and Health in Africa (SASHA) project is designed to improve the food security and health of poor families in sub-Saharan Africa (SSA) by exploiting the untapped potential of sweetpotato.



The Reaching Agents of Change (RAC) project (2011-2014), led by the International Potato Center in close collaboration with Helen Keller International, seeks to ensure the capacity of African institutions, advocates, and implementing organizations to generate awareness, obtain funding, and effectively implement medium- to large-scale programs to combat vitamin A deficiency (VAD) and food insecurity by exploiting the potential of orange-fleshed sweetpotato (OFSP). The five target countries are Tanzania, Mozambique, Nigeria, Ghana, and Burkina Faso.