

Scaling Up Sweetpotato through Agriculture and Nutrition (SUSTAIN) in Rwanda

During the past year, project beneficiaries marketed 32,440 kilograms of OFSP roots valued at US \$ 7,603. We launched a new roadside market promoting fresh OFSP roots and products.

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Fig. 1 Welcoming guests to new Rulindo OFSP roadside market. (credit A. Ndayisenga)

What is the problem?

Rwanda's investment in agriculture targets five crops, mainly maize, rice, beans, banana and potato. However, in terms of metric tons produced, sweetpotato *is* the number one crop in the country, accounting for 13.4% of all crop production in 2014, yet only 5.2% of cultivated land (Table 1). Rwandans consume over 88 kg per capita of sweetpotato per annum, with the

dominant varieties being white-fleshed. The major complaint of farmers is lack of market.

In addition, the levels of chronic malnutrition remain high (44% in 2010 DHS). Therefore, the government of Rwanda is promoting several interventions including the utilization of biofortified crops such as pro-vitamin A rich, orange-fleshed sweetpotato (OFSP).

Table 1. Production of Key Roots and Tubers in Rwanda in 2014 Season A, B, and C

CROP	TOTAL METRIC TONS	%OF ALL CROP PRODUCTION	% OF ALL AREA CULTIVATED
SWEETPOTATO	940,787	13.4	5.2
CASSAVA	900,227	12.8	22.8
BANANA FOR BEER	854,710	12.2	11.7
COOKING BANANA	865,629	12.3	8.3
IRISH POTATO	719,006	10.3	4.1

Source: National Institute of Statistics of Rwanda: Seasonal Agricultural Survey 2014



SUSTAIN is a 5-year partnership (2013-2018), coordinated by CIP and financed by the UK Department for International Development, to scale up the nutrition benefits of biofortified orange-fleshed sweetpotato (OFSP). The goal is to reach 1.2 million households with under-5 year old children in Kenya, Malawi, Mozambique, and Rwanda. SUSTAIN supports integrated interventions in agriculture, nutrition, utilization, and marketing to strengthen production and consumption of OFSP. SUSTAIN emphasizes rigorous measurement and evaluation in order to assess the scalability of these interventions and contribute to global evidence on achieving large scale nutrition outcomes through biofortified crops.



Fig. 2 Mass vine distribution in Northern Rwanda.
(credit A. Ndayisenga)



Fig. 3 Sweetpotato mandazi being mad at Indyo Inoze Cooperative.

What do we want to achieve?

Biofortified, pro-vitamin A rich OFSP varieties are a proven tool for reducing vitamin A deficiency (VAD) among children under five years of age, the group most at risk of VAD. Under the SASHA project (2010-2014), we demonstrated that through effective public-private partnerships, it is possible to build a sweetpotato value chain that is pro-poor and pro-women. Through the SUSTAIN project, we are scaling up this model and strengthening the nutrition component.

We intend to reach at least 60,000 direct smallholder beneficiaries and 250,000 indirect beneficiaries by 2018 with improved varieties and appropriate nutrition information and counseling for caregivers of infants and young children. We aim to contribute to improving dietary diversity through increasing the consumption of OFSP and other vitamin A rich foods at the household level.

Where are we working?

SUSTAIN is expanding the area covered in the four districts initiated under SASHA (Gakenke, Rulindo, Kamonyi, and Muhanga) and has added four new districts (Gicumbi, Ruhango, Kayonza, and Rwamagana).

What have we achieved so far?

Michigan State University coordinated a baseline survey in 1,560 households in 252 villages, 42 sectors in 8 districts, randomly separating areas where we are now implementing from areas where we will not intervene. An additional survey will be carried out at the end of the project, providing clear insights on whether we are going to scale effectively.

Between December 2014 and June 2015, the project produced and distributed over 4 million OFSP cuttings to 20,000 eligible households in 8 districts (Fig. 2). Each recipient also received an integrated nutrition-agriculture brochure which provides information on nutrition, agronomy and use of OFSP. There are now 21 decentralized vine multipliers (DVMs) spread over the eight districts. Over the past 12 months, these DVMs produced and sold 1.3 million cuttings valued at about US \$ 8,908. Project beneficiaries marketed 32,440 Kg of OFSP roots valued at US \$ 7,603.

From July 2014 to June 2015, Urwibutso Enterprises produced OFSP-based bakery products worth US \$ 364,410 and the farmer cooperatives sold products worth US \$ 1,463 (Fig. 3). In collaboration with Rulindo district, we launched an OFSP roots and products roadside market to sell OFSP products to consumers. We also partnered with an online fruits and vegetable marketing firm to ease access of roots to households in the capital Kigali, and with a private company to market OFSP roots to restaurants and hotels in Kigali.

The nutrition counseling cards used in the Kenya Mama SASHA project have been adapted to the Rwandan context. We trained 37 Community Health Workers (CHWs) on the key messages in the cards and they are now using these to provide nutrition education and counseling. Nine promoters who work in the field received agricultural training. Every project beneficiary receives a brochure that contains integrated messaging on OFSP planting, maintenance, harvesting, consumption, and nutrition. They also receive a flier that describes traits and cooking instructions for each variety.

What's next?

The project has set up 11 demonstration plots across a wide range of agro-ecological zones. From these, farmers will select varieties with desirable traits that best meet their needs. Training materials on specific modules from the series "Everything You Ever Wanted To Know About Sweetpotato" were translated into the national language and will be used in future trainings. We will expand the intervention to an additional 40,000 households over the next year.

Our Partners

- Rwanda Agriculture Board (RAB)
- Young Women Christian Association (YWCA)
- IMBARAGA Farmers Syndicate
- United Nations Children's Fund (UNICEF)
- World Vision
- One Acre Fund
- Gardens for Health
- Caritas
- Catholic Relief Services (CRS)

- Local Governments
- Rwanda Cooperative Agency

Processors

- Urwibutso Enterprises (SINA Gerard)
- Millennium bakery
- DUHANGE KUBYIWACU
- Farmer cooperatives