

Scaling Up Sweetpotato Through Agriculture and Nutrition in Kenya

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SUSTAIN brings together agriculture and health players during a review & planning meeting (credit P. Muoki)

What is the problem?

Vitamin A deficiency (VAD) continues to be a significant public health problem in Kenya that affects 34% of children and 39% of women (especially pregnant women). In Kenya, SUSTAIN project is working in Nyanza Pprovince. In this province, prevalence of VAD among young children is about 22%. CIP and partners have been delivering OFSP vines and nutrition counseling to households with pregnant and lactating women in Western Province, Kenya, through the Mama SASHA project for the past four years. The integrated model, combining nutrition counseling that is linked to ante-natal and infant health services with OFSP dissemination and agricultural extension, has proven to be very effective in increasing both OFSP adoption and utilization of health services.

SUSTAIN Kenya is building on this experience and working with some of the same partners in neighboring Nyanza Province to test a less intensive and more cost-effective agriculture-nutrition approach to get OFSP into the farms and diets of households with children under 5. Secondly, we work with commercial food processors to see whether commercial markets for OFSP-based products can provide incentives for accelerated adoption by smallholders and whether a more

diversified market will overall increase investments in the entire OFSP value chain.

What do we want to achieve?

SUSTAIN Kenya sets out to reach 30,000 households with children under 5 years of age with OFSP vines and nutrition education by 2018. We expect that these households will produce OFSP for several seasons and consume OFSP at least twice per week during seasons of availability. We also will work with a commercial partner to establish at least one commercially traded processed product in the market that uses OFSP as a major ingredient. The target is to reach at least 100,000 consumers with this product.

Where are we working?

During 2013/2014, SUSTAIN worked in 7 community units (CUs) drawn from three counties of Nyanza province. These units include Sirembe and Dienya of, Siaya county; Charachani and Miruka of Nyamira county and Kakanutu west, Kakelo Dudi A and B of Homabay county. In these areas, sweetpotato is an important food security crop and is consumed regularly especially for breakfast. However, the majority of the sweetpotato varieties produced in these regions are either white or yellow-fleshed.



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.



Promotion of OFSP processed products during open day for pregnant and lactating mothers at Othoro sub-district hospital, Homabay County (credit S. Agili)

Several criteria were followed in selecting the CUs: 1) The CUs selected were those that are being supported by APHIAPlus Western Kenya Project, implemented by the Ministry of Health and the SUSTAIN project partner PATH. 2) Have good potential for production of sweet potato with some currently being cultivated; 3) Has access to moist lowlands in dry season to aid in conservation of OFSP vines; 4) Has ability and willingness to have land for cultivation of the vines; 5) Is close to the main road to link production to potential markets.

We are also working in markets in Kisumu and Nairobi to assess and build demand for OFSP-based process products. In the first year, supplies for product development come from farmers in Western Province that were supported through the Mama SASHA project; in subsequent years, however, supplies will be sourced from OFSP farmers in Nyanza Province.

How are we making it happen?

The project acknowledges that the first 1,000 days of life are key in reversing the devastating effects of VAD and deficiencies related to inadequate energy consumption. Deliberate focus has thus been in reaching women and children during ante and post-natal healthcare attendance at selected health facilities. A coupon system, whereby a mother is issued with a coupon at the health facility that is presented to a vine multiplier for supply of vines has been established. Subsequently, health facilities are linked to a vine multiplier that has been intensely trained and frequently receives extension services. Two major expected impacts are significant increases in the frequency of OFSP and utilization of mother-child health care services. Parallel to this intervention, we are phasing in the development of a commercial value chain for OFSP processed products that links smallholder producers to commercial processors. From this partnership, we expect incentives for wider adoption of OFSP varieties in Nyanza Province as well as increased investments in various stages of the overall OFSP value chain.

What have we achieved so far?

Training has been conducted for all the actors in the 2013/2014 community units. These include, 8 health facility workers, 11 community health extension workers,

152 community health workers and 10 decentralized vine multipliers (DVM). During the 2014 long rains season, 1050 beneficiaries received start up vines for VITA and Kabode varieties. Net tunnels have been established by all the 10 DVMs. During 2014/2015, we will extend this work to an additional 25 community units.

About 1500 men and women participated in promotional 'open days' that were held in all the health facilities participating in the project. During these days, all actors played their roles simultaneously to enhance awareness creation. At least 5 types of home-made commonly eaten foods fortified with OFSP were displayed and tasted by all participants. The goal is to speed up adoption of the new OFSP varieties through diversified home consumption. As fair market structures are important for effective value chains, we have initiated discussions with our commercial partner (Tuskys) on the supply chain model for small and medium scale OFSP producers. We are jointly implementing market and consumer assessments in September 2014. As an intermediate product, we are assessing the feasibility of producing OFSP puree seems through an additional local commercial partners (e.g. SACOMA) who will in turn supply to Tuskys production of bakery products.

Who are working with?

This project is a partnership between agricultural and health institutions. The Ministry of Health and PATH (a leading international health NGO) collaborate with CIP and the Ministry of Agriculture to ensure nutrition and agricultural interventions are linked effectively and the project can draw on their operational capacity. Thirdly, we are working with Tuskys supermarkets for commercial product development and marketing, with additional technical inputs from the private sector food technology firm Euro Ingredients Ltd.



Decentralized vine multiplier shows off his irrigation tools (credit P. Muoki)