Scaling out sweetpotato and potato-led interventions to improve nutrition and food security in Tigray and SNNPR, Ethiopia

Strengthening the seed value chain is key to any sweetpotato intervention. Getting disease-free starter material is essential. Quality orange-fleshed sweetpotato vines (8.6 million) have reached 16,700 households in one year, eight months.

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OFSP urban promotion in Hawassa, SNNPR
(credit T. Berhanu)

What is the problem?

Chronic food insecurity and malnutrition are major public health problems facing Ethiopia, and in SNNPR and Tigray regions in particular. Both regions suffer from repeated incidence of drought. The prevalence of vitamin A deficiency (VAD) is of particular concern among pregnant women, lactating women, and children below five years of age. In Tigray, more than 60% of children are vitamin A deficient, while in SNNPR, we estimate a VAD prevalence of 61%. To address this problem, effective integration of more nutritious crops into local farming and marketing systems is needed so that key nutrients will become available to vulnerable populations in an affordable and sustainable manner. This project contributes to this solution through expansion of production, utilization, and consumption of nutritious orange-fleshed sweetpotato (OFSP) and potato varieties.

What do we want to achieve?

The overall goal of this project is to contribute to improved nutrition and food security in vulnerable households with young children in Tigray and SNNPR through increased production and consumption of micronutrient-rich OFSP, and potato varieties as part of diversified diets. The project began in November, 2013 and runs through December, 2016. The project seeks to achieve four objectives:

- Expanded smallholder production of nutritious sweetpotato and potato varieties
- Increased consumption of OFSP and potato as part of more nutritious diets
- Improved and diversified market access for OFSP and nutritious potato
- Increased institutional and policy support to nutrition-sensitive agriculture.

Where are we working?

The project is being implemented in the Southern Nations, Nationalities and Peoples' Region (SNNPR) and the Tigray region in the north of Ethiopia. At present, the project covers a total of 75 kebeles (villages) in 20 woredas (districts) in the two regions.

How are we making it happen?

CIP, in collaboration with implementing partners, is employing a four-pronged approach to achieve the project goals:

i. Technical and financial support to the national research system (TARI & SARI), private sector and farmers the production of quality planting material for OFSP root production
ii. In collaboration with NGOs (Mums for Mums, Egna Leegna, Goal, Farm Radio International and Women's Association of Tigray), we carry out intensive nutrition awareness and behavior change campaigns to promote consumption of

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Key Partners:

- Bureau of Agriculture and Rural Development (BoARD) in Tigray
- Bureau of Agriculture and Rural Development (BoARD) in SNNPR
- Bureau of Health in Tigray
- Bureau of Health in SNNPR
- Bureau of Education in Tigray
- Southern Agricultural Research Institute (SARI)
- Tigray Agricultural Research Institute (TARI)
- Mums for Mums
- Women's Association of Tigray,
- Egna Leegna
- Goal Ethiopia
- Hawassa University
- Mekelle University
- University of Wisconsin

Community nutrition promotion through cooking demonstrations in SNNPR (credit M. Fofanah)

Vine multiplication using net tunnels at Hawassa Agricultural Research Centre (credit M. Fofanah)

Harvesting of OFSP vines at a DVM farm in Tigray (credit H. Tesfay)

OFSP as part of diversified diets. Promotion approaches in use include: cooking demonstrations, OFSP recipe tasting, mass media use, participatory radio programs, nutrition counselling, information, education and communication tools (flyers, brochures, posters, leaflets and bill boards), nutrition education sessions at schools, school gardens and school feeding programs

iii. In addition to linking OFSP producers to markets, potential new processed products that use OFSP as an ingredient will be identified and value chain linkages for these products established and strengthened. These activities will be supported by research on value chains and trainings on OFSP processing and products development, marketing and business skills

iv. To support institutionalization and policy support of nutrition-focused agriculture, the project collaborates with the Bureau of Agriculture and the Bureau of Health and will strive to foster collaboration between the two entities through joint trainings of staff from the two departments and technical roundtables

What have we achieved so far (November, 2013 to June 2015)?

So far, the regional research institutes (TARI and SARI) produced and acclimatized over 140,000 in vitro plantlets of two OFSP varieties. Approximately 600,000 basic, disease-free vine cuttings have been distributed to almost 140 private and decentralized vine multipliers for further multiplication in the two regions. The 140 OFSP vine multipliers have been linked to suppliers of quality basic primary seed materials. In addition, 38 net tunnels (16 on-station and 22 on-farm), which protect disease-free starter material from virus-transmitting insects, were constructed to enhance production of clean planting material. The project has so far distributed 8.6 million vines reaching 16,700 households. Twenty-four school gardens have been established in the two regions and received 670,000 OFSP cuttings for multiplication. In Tigray 18,450 school children consume OFSP as part of the school feeding program. With respect to promotional activities, at least 56,000 people were reached through different nutrition and OFSP promotional activities (cooking demonstrations, school gardens/feeding, nutrition counselling at health posts). 3,200 change agents including extension officers, model farmers and other officials from the bureaus of health and agriculture were trained in various aspects on OFSP agronomy, post-harvest handling, processing, and marketing.

What´s next?

The project has already started establishing collaboration with private tissue culture laboratories interested in engaging in producing OFSP pre-basic and basic planting material to supplement production from the national research institutes. These laboratories will be linked to primary and secondary vine multipliers. Additionally, the project will expand the on-station and on-farm net tunnel activities and pilot drip irrigation and on-farm conservation technologies to further strengthen the seed system. Regarding promotion activities, the project will continue promotion activities, especially the very popular cooking demonstrations, will be expanded and consolidated in the newly established intervention districts. We will strengthen our promotion activities in urban areas, especially those targeting traders and processors.

OFSP school garden at Maera Primary School, Tigray (credit H. Tesfay)

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