

Alleviating of Food Insecurity and Malnutrition in Tigray and SNNPR in Ethiopia

Community cooking demonstrations proved to be an effective tool for increasing consumption of OFSP, for disseminating nutrition knowledge to farmers and influencing behavioural change at the household level.

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Beneficiaries participating in a nutrition community discussion session. (credit M.M. Dangiso)



What is the problem?

Ethiopia is characterized by persistent food insecurity with many farming communities not producing enough food or income to meet their families' nutritional requirements. Vulnerable households are prone to unpredictable, food insecure periods caused by a combination of factors including erratic weather patterns, recurrent droughts, low crop yields, limited access to land and high population density. Maternal and child vitamin A deficiency (VAD) is very common; most households depend on a few staple foods, and lack sufficient amounts of meat, fish and vegetables needed to meet daily nutrition requirements and health services are limited. Vitamin A supplementation coverage is also very limited. Addressing this problem is crucial, as VAD can lead to blindness, frequent infections, impaired growth and high rates of young child mortality.

Orange-Fleshed Sweetpotato (OFSP) is an excellent food security and nutrition crop. OFSP contains high levels of pro-vitamin A (beta-carotene) and carbohydrates providing a relatively cheap source of vitamin A and energy. These 2 elements are crucial in addressing VAD

and improving maternal and child outcomes in Ethiopia. OFSP is also good source of fiber, and other essential vitamins and minerals including vitamins C and E, several B vitamins and magnesium. For example, 1 medium-size OFSP storage root provides enough vitamin A to meet the recommended daily requirement for children and non-lactating women.

This food based strategy aligns with the Government of Ethiopia (GOE) nutrition strategy. However, the potential use of OFSP in addressing VAD has not been fully exploited in the region. For the most part, the linkage between agriculture nutrition and health is weak and collaboration between the sectors very limited.



What did we set out to achieve?

The two projects "Alleviation of Food Insecurity and Malnutrition in Tigray, Ethiopia, through promotion of Potato and Sweetpotato, implemented from March-April 2013 and "Linking Agriculture and Health: Alleviation of food insecurity and malnutrition in SNNPR, Ethiopia, through promotion of potato and sweetpotato", implemented from November 1st 2012 to October 31st 2013, sought to improve nutrition, particularly vitamin A intake (VA), and food security through increased production and consumption of sweetpotato and potato-based food products in Southern Nations, Nationalities, and peoples' Region (SNNPR) and Tigray.

The main objectives were to:

- Improve nutrition and diet quality in SNNPR and Tigray by promoting potato and sweetpotato production and consumption with emphasis on OFSP varieties.
- Improve OFSP vine and root supply to target kebeles (villages) and their neighboring communities by building robust multiplication and distribution chains involving lead farmers and cooperatives.
- Increase knowledge of the nutritional benefits and utilization of potato and sweetpotato



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Key Partners:

- Tigray Agricultural Research Institutes (TARI)
- Tigray Bureau of Agriculture and Rural Development
- Mums for Mums (M4M)
- Women Association of Tigray (WAT)
- GOAL Ethiopia
- Engnalegna
- Bureau of Health (BOH)
- Bureau of Agriculture (BOA)
- Southern Agriculture Research Institute (SARI)
- Hawassa University
- University of Wisconsin





Cooking Demonstration activity in Boricha (credit M. M. Dangiso)



Promotion event on benefits OFSP during "Ashenda Holiday" in Mekelle (credit H. Tesfaye)



School feeding meal at Mara elementary school (credit H. Tesfaye)

by applying proven promotional methods, such as mobile kitchens, school gardens and radio messages.

- Conduct adaptive research on innovative uses of the crops.
- Strengthen linkages between the Bureau of Agriculture (BoA) and Bureau of Health (BoH) and other actors for the complementary implementation of food-based health initiatives and build nutrition-related capacity of staff
- Develop a strategy for the region-wide promotion of a food-based approach to combat VAD, based on the experiences of the pilot phase,
- Document project outcomes and lessons learned.

Where did we work?

- In SNNPR, the project was piloted in 5 food insecure woredas (districts) in SNNPR Region: Damot Gale, Damot Woide, Dugna Fango, Boricha, and Loko Abaya.
- In Tigray, the project was implemented in 10 kebelles of 5 food insecure woredas in the Tigray Region, Ethiopia. The target groups of the project were pregnant women, lactating mothers and children under five years of age.

What did we achieve?

- **Increased the number of households producing** OFSP in both regions: 4,000 households were provided with new drought tolerant, disease free OFSP varieties. Close to 3.5 million clean OFSP vines were distributed over the past 2 years.
- Increased the number of households consuming OFSP products through implementation of an intensive behavior change campaign using different communication channels including cooking demonstrations, community dialogues, house to house visits, health post visits, community fairs, entertainment (dance, songs) and small media (brochures, posters). As a result:
 - Adoption to grow and consume OFSP among community of the project area increased enormously;
 - More than 23% households included in the intervention increased their vitamin A intake through regular consumption of OFSP in Tigray;

- Targeted communities have a better understanding of OFSP benefits, processing, utilization and storage;
- OFSP was adopted by the World Food Programme (WFP) and introduced as part of the WFP School feeding meal in Tigray.
- Piloted OFSP Promotion through cooking demonstration and recipe tasting in 6 schools in SNNPR; more than 3,000 School children and 60 teachers participated in different school promotion events.
- In collaboration with partners, the project developed a regional OFSP recipe book, which is being edited for future publishing.
- Promoted consumption of OFSP based products at the household level. These include injera (staple pancake) made from 30% teff flour and 70% OSFP puree (boiled and mashed); bread, cake, and doughnuts made from 30% OFSP puree and 70% wheat flour.
- Strengthened the capacity of BOH and BOA staff: nearly 2,378 people were trained in nutrition, agronomy and sweetpotato post-harvest technologies production, processing, preservation marketing and utilization.
- Conducted several stakeholder workshops aimed at strengthening the linkages between agriculture, nutrition and health sectors. The workshops served as a platform of dialogue, learning and experience sharing between project stakeholders.
- Set up and coordinated an OFSP task force consisting of government health and agriculture focal points, implementing partners staff and model farmer representatives in each woreda and kebele. Members of the task force led community mobilization efforts and provided leadership in overall project planning and implementation.



Sweetpotato vine producer in Tigray, Ethiopia (credit H. Tesfaye)