# Quality Diets for Better Health in Ethiopia



Dry matter matters: New, locally adapted Orange-Fleshed Sweetpotato varieties bolster food and nutrition security in SNNPR, Ethiopia.





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Fig 1. Contrast: Vine multiplication site at Dongoro Elelcho (Chuko district) surviving the dry season thanks to rainwater harvesting, 22 January 2019 (credit R. Btouwer)

## What is the problem?

Malnutrition and vitamin A deficiency are widespread in Ethiopia. Prevalence of stunting among children under 5 is 38%. A diet built around only a few staples means that many people have an insufficient intake of micronutrients. Complementary feeding practices for infants and young children are often deficient in frequency, quantity and nutrient density. Only 7% of infants 6-23 months of age meet the criteria for a minimum acceptable diet (EDHS 2016).

### What do we want to achieve?

The 4.5 year Quality Diets for Better Health (QDBH) project started in January 2017. By 2021, it will have helped 15,000 rural households to improve their infant feeding practices and diets after training in sweetpotato farming and nutrition and being provided with new, locally adapted climate-smart orange-fleshed sweetpotato (OFSP) cultivars. Over 61,000 urban consumers will have access to OFSP roots and at least three different OFSP-based products. At least one private sector operator will be engaged in OFSP value addition.

## Where and with whom are we working?

The project is financed by the European Union. Its intervention area covers four *woredas* (districts) in the Sidama and Gedeo zones in the Southern Nations, Nationalities and Peoples' Region (SNNPR) with activities focused on food and nutrition. In late 2018, a fifth *woreda* was added to bolster OFSP production for the market.

QDBH is implemented by the International Potato Centre (CIP) with People in Need (PIN) and the Rollins School of Public Health (Emory University) in partnership with the Ethiopian governmental agriculture, health and market development agencies; the Southern Agricultural Research Institute (SARI); the University of Hawassa; and the Agricultural Technical and Vocational Education and Training (ATVET) College in Sodo.

### How are we making it happen?

The QDBH project tests the combination of a specific agriculture-nutrition-market based approach. Production and consumption of OFSP roots and leaves are promoted to achieve dietary diversity and increase the intake of vitamin A by young children and their mothers. QDBH pilots feeding toolkits combined with nutrition training of mothers and fathers in "Healthy Living Clubs" (HLCs) to ensure that parents give their children enough nutritious food. Value chain development is expected to generate additional income and initiate a flow of OFSP roots and leaves and derived products to urban consumers.

Since the start of the project, 7,650 households have participated in HLCs. Each received 600 OFSP cuttings from local multipliers. Agricultural and nutrition health trainings were led by local agricultural (DA) and health extension workers (HEW) and Health Development Army (HDA) volunteers. Until June 2019, another 200 households with linkages to the Region's main food market received over 140,000 cuttings of new, high dry-matter content cultivars to start supplying fresh roots to urban consumers.

By the end of the project, we want to see OFSP integrated in rural and urban diets, endorsed by government agriculture and health programs in SNNPR, with ATVET Sodo having incorporated OFSP in their training programs for extension personnel.



**Fig 2.** HDA member explains dietary diversity to HLC members. Wonago district (credit R. Brouwer).

## What have we achieved and learned so far?

**Release of improved cultivars:** Adoption of OFSP in Ethiopia has remained constrained by the low dry matter content of the only available variety – Kulfo. National variety trials emphasizing participatory variety assessment with farmers enabled the submission of three new high dry-matter content OFSP cultivars for release in 2019.

**Engage stakeholder and raise visibility:** In March and July 2019, stakeholder meetings at the zonal and regional levels brought together 265 representatives from *kebeles* (villages), *woredas*, zonal and regional agencies to assess the project's performance. The state television channel FANA spent more than 40 hours with the project to collect imagery and interview beneficiaries.

**Increase OFSP acreage:** 7,650 beneficiary households planted over 23 hectares of OFSP with a production potential of almost 460 tons. They shared planting material with at least 7,200 other households. Sixteen local multipliers provided the planting material.

**Build capacity:** 24 Farmer Training Centers have been equipped with rainwater harvesting installations (12) and water pumps (12) to ensure vine supply at the start of the rainy season (Figure 1). On-going step-down trainings of Development Agents, Health Extension Workers and Health Development Army members ensure that fathers and mothers have the skills for successful OFSP farming, Triple S (a root-based system for planting material production) and appropriate young child feeding practices.

**Provide nutrition training:** In 2018/2019, 88% of 3,270 HLC member households participated in at least four out of six HLC training sessions; 46% of the attendants were fathers (Figure 2). Fig 3. One-third of teff flour is replaced with OFSP puree in OFSP injera, Hawassa (credit R. Brouwer)

**Promote processing:** Out of 15 trained small and medium enterprises (nine female-managed), five are incorporating OFSP into local products such as *injera* (Figure 3).

**Gather evidence:** A longitudinal study follows about 600 households over a one-year period to assess the impact of OFSP, HLC trainings and the healthy baby toolkit (Figure 4). Midline date show that HLC trainings with the toolkit improve significantly the diets of young children. As the mid-line coincided with a period without sweetpotato harvest, the influence of OFSP has not yet been determined.



Fig 4. Baby toolkit

**Scale out:** The 2018 edition of the "Everything you ever wanted to know about sweetpotato" TOT used jointly with an Irish Aid funded project, exposed 10 additional woredas to OFSP, aligned QDBH with the government's Agricultural Growth Program, and worked towards institutionalization of the TOT within the Sodo ATVET program.

## What are the next steps?

The release of locally adapted, high dry-matter and drought tolerant OFSP varieties accelerates uptake among farmers and will increase the supply of roots to urban markets. The project will work towards raising awareness among retailers and consumers of OFSP as a food opportunity to increase the effectiveness of the project's strategy for dietary improvement and the reduction of vitamin A deficiency while keeping a keen eye on the economic feasibility of fresh market and processing alternatives. The project is identifying where to manufacture the Healthy Baby Toolkit within Africa. Lessons learned will support out-scaling into new areas at the end of the project.

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