



# Integrating nutrition in agricultural projects: Experiences from Ethiopia

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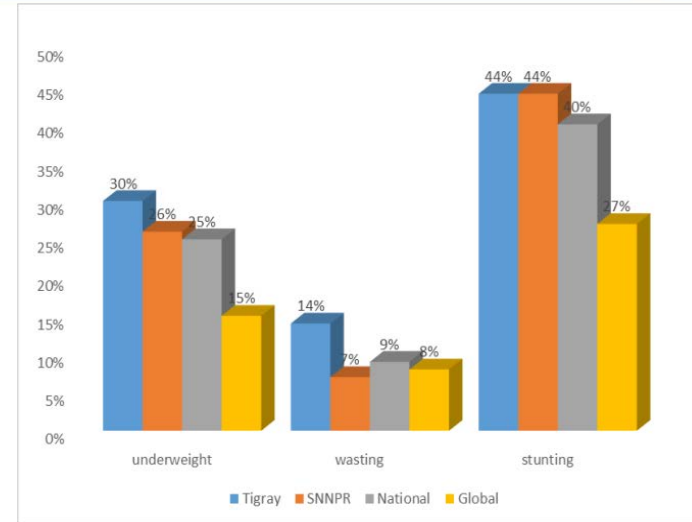


# Presentation outline

- I. Background
- II. Factors considered at project planning
- III. Implementation Approach
- IV. Successes & Challenges

# I. Background

- ◇ Chronic food insecurity and malnutrition are major challenges in Ethiopia
- ◇ Tigray and SNNPR prevalence of Stunting, wasting and underweight among children <5 years are **higher than national average**
- ◇ Micronutrient deficiencies (esp VAD) highly prevalent esp among pregnant and lactating women and children <5
- ◇ Low dietary diversity and limited intake of Vitamin A rich foods, Zinc and Calcium (EPHI National Food Consumption Survey, 2013)
- ◇ Integration of nutritious crops into farming & marketing systems to make key nutrients accessible the poor is required
- ◇ National Nutrition Plan (2008-2015); NNP (2016-2020); Ministry of Agric & NR Nutrition Sensitive Agric Strategic Plan (2015) recognise bio-fortified crops (and specifically OFSP) for addressing malnutrition



Source: Mini DHS, 2014

Table 16: Prevalence of inadequate and excessive intakes in the females aged 19 to 45 years by region

Region	Iron		Zinc		Vitamin A	
	Inadequate	Excessive	Inadequate	Excessive	Inadequate	Excessive
Tigray	13.6%	57.8%	34.1%	<1%	95.9%	<1%
Afar	17.9%	51.9%	35.9%	<1%	84.4%	<1%
Amhara	6.2%	80.2%	50.0%	<1%	93.0%	<1%
Oromiya	14.9%	58.0%	45.9%	<1%	79.8%	<1%
Somali	84.3%	1.1%	94.1%	<1%	99.2%	<1%
Benshangul Gumuz	9.3%	73.2%	50.8%	<1%	78.6%	<1%
SNNPR	32.6%	29.7%	75.1%	<1%	41.3%	<1%
Gambella	38.5%	27.5%	73.6%	<1%	55.7%	<1%
Harari	20.4%	43.9%	67.3%	<1%	94.7%	<1%
Addis Ababa	7.4%	75.1%	61.7%	<1%	93.9%	<1%
Dire Dawa	33.9%	27.0%	83.8%	<1%	98.7%	<1%
National level <sup>††</sup>	12.9%	63.6%	50.4%	<1%	81.9%	<1%

<sup>††</sup>National data are weighted by population size using sample weightings

# I. Background (ctd)

## Goal:

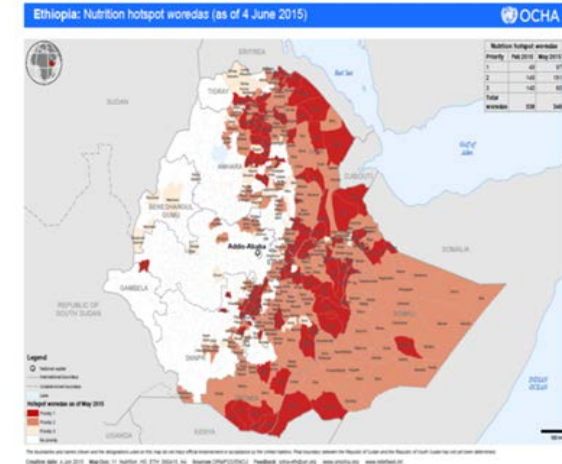
Contribute to improved food and nutrition security among vulnerable households with young children in target regions through increased production and consumption of micronutrient-rich sweetpotato and potato varieties as part of diversified diets

## 4 agriculture-nutrition projects:

- I. Scaling out sweetpotato and potato-led interventions to improve nutrition and food security in Tigray and SNNPR, Ethiopia (Irish Aid-funded); Sites (SNNPR and Tigray)
- II. Better Potato for Better Life (USAID-funded); Sites (Tigray, SNNPR, Oromia & Amhara)
- III. SASHA project (BMGF-funded); Sites (SNNPR & Tigray)
- IV. Emergency Seed Project (USAID-funded); Sites (SNNPR)

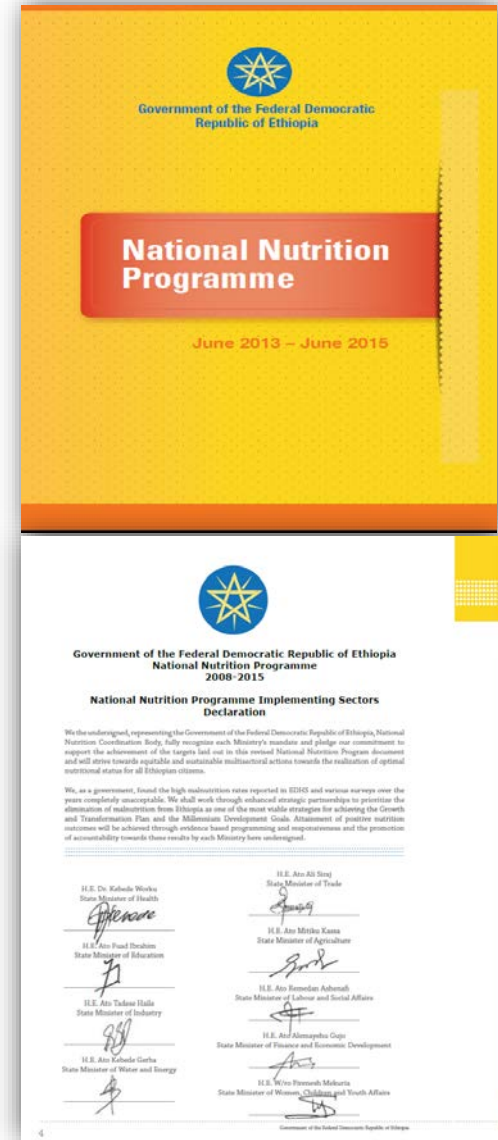
# Factors considered at project planning

- ◇ 3 key outcomes/impacts to be achieved: food security, nutrition and income.
  - Develop implementation plans to meet these objectives simultaneously
- ◇ Farming systems and local diets are dominated by cereals and SP &P are not priority crops:
  - OFSP is a new crop to Eth. Integrate OFSP into predominantly cereal-based cropping systems and local diets
  - Product development focus on integrating OFSP into local foods
- ◇ Targeting:
  - Food insecure, malnutrition hotspot regions and districts with suitable agro-ecology targeted
  - Target kebeles and households selected jointly with local partners (BoA, BoH, BoE, NGOs)
  - Households: vulnerable to food insecurity and malnutrition, with women of reproductive age, with children <5



# Factors considered at project planning

- ◇ Alignment of projects to government food security and nutrition programs and strategy at different levels:
  - Agricultural Growth Program (AGP)
  - National Nutrition Programme (2008-2015)
  - Ministry of Agric & NR Nutrition Sensitive Agric Strategic Plan (2015)
- ◇ Agriculture-nutrition interventions are multi-sectoral & require multi-sectoral coordination and multi-partnership approach
- ◇ Linking to government structures at different levels for sustainability
- ◇ Value chain approach: partnerships along the value chain (from seed to the table)

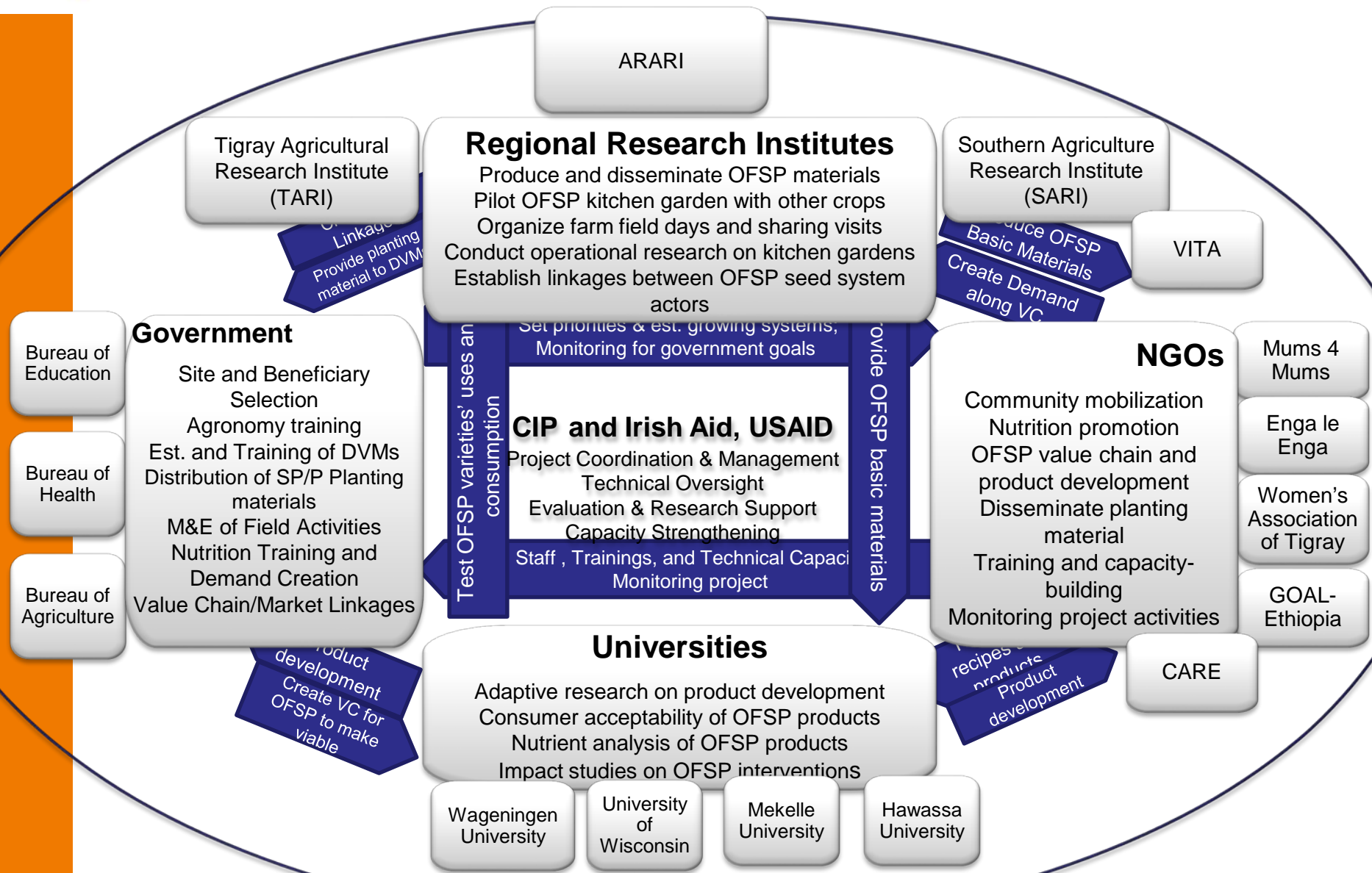


# Factors considered at project planning

- ◇ Gender roles in agriculture and household nutrition:
  - Women play a key role in SP production and household nutrition
  - Women and children <5 are the most vulnerable to malnutrition
- ◇ Opportunities to complement/align with nutrition initiatives led by other national and regional stakeholders (e.g. WFP; Helvetas; Save the Children; EPHI)
- ◇ Develop Behaviour Change Communication Strategy
- ◇ Impacts on nutrition outcomes cannot be achieved by one crop (Promote OFSP as part of a food basket)



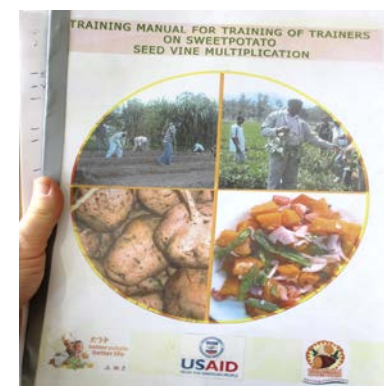
# Implementation approach and partners





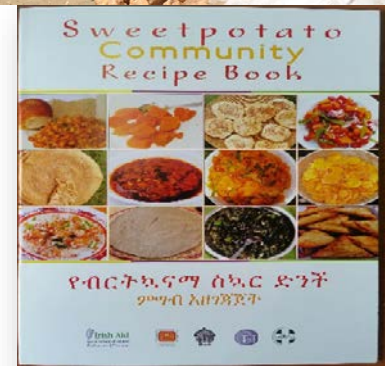
## Implementation approach (ctd)

- ◇ Use existing government and community structures in nutrition promotion and to ensure sustainability: HEW; AEW; Women Development Groups; School clubs
- ◇ Nutrition promotion through multiple complementary behavior change approaches: cooking demonstrations; community nutrition sessions; radio; IEC materials; Ashenda Festival and School gardens/feeding/education programme
- ◇ Established OFSP school gardens/feeding & nutrition education to complement traditional extension approach
- ◇ Training of Trainers (ToT) for Women Development leaders, HEW, AEW and model farmers on sweetpotato agronomy & nutrition; business skills development training for FGCs
- ◇ Established kitchen gardens targeting women



## Implementation approach (ctd)

- ◇ Establishment of a sustainable seed system with strong linkages between actors (foundation seed suppliers; DVMs; private commercial multipliers and root producers)
- ◇ Technologies to ensure farmers access clean quality planting material (Triple S; on-farm net tunnels; Drip irrigation) piloted/validated
- ◇ Strengthen market linkages
- ◇ Product Development: Integrate OFSP into local foods
- ◇ Agric-nutrition platform for joint learning & advocacy



# Successes

- ◇ **A robust OFSP seed system established:**
  - Capacity of research institute for production of OFSP pre-basic and basic seed strengthened and a revolving fund model for sustainable foundation seed production adopted
  - A network of DVMs linked to foundation seed suppliers established and able to supply high quantities of OFSP planting material
  - Technologies for on-farm conservation of vines piloted, validated and ready for out-scaling



## Successes (ctd)

- Increased farmers' incomes from sales of OFSP roots and vines & spill-overs by way of other households employed by project-supported multipliers
- Increased knowledge on agronomy, general nutrition and OFSP nutritional benefits
- Farmer –to-farmer exchange of OFSP vines has increased farmers access to clean OFSP planting material and increased OFSP growers & area under OFSP
- School gardens have been instrumental in disseminating vines

*“Last year we sold around 37,000 ETB of OFSP....  
Next year we're planning to increase our sales to  
200,000 ETB” (KII, 2015)*

*“ When my neighbors saw the benefits that I am getting,  
they started planting OFSP by taking vines from me. We  
are getting income by selling the extra OFSP”*



# Successes

- ◇ Increased consumption of OFSP and other vitamin A rich foods, dietary diversity
- ◇ 18,000 children reached through school feeding. Increased school attendance and more active participation of children in school
- ◇ Improved child nutrition and health, and reduced incidence & severity of immune-related diseases and mortality

- *“Not only the farmers who grow OFSP but also those without vines consume it by getting it from OFSP growers. The public understands OFSP’s benefits. People keep asking me to sell them OFSP. This shows awareness is spreading”*
- *“ These [CIP] activities have helped the society to be self-reliant and the number of food secure HHs is increasing. We now understand OFSP reduces diarrhea”*
- *“Our children are most impacted.... Their school rank is improving. Before, our children had diarrhea problems. But now their immunity is strengthened.”*

**Source: Focus Group Discussions, 2015**



# Successes

- ◇ Product development and marketing:
  - Farmer linkages to local OFSP root market established
  - OFSP successfully integrated into local diets in different forms
- ◇ Advocacy and institutionalisation:
  - Increased interest on OFSP by other stakeholders
  - Recognition of SP as a food security crop and mainstreamed into the health & agriculture extension education package especially at kebele level (esp in Tigray)
  - Strengthened collaboration between agriculture and health sectors, NGOs through their joint work in the project
  - QDS ratified & institutionalised at national and regional government levels



# Challenges

- ◇ Long dry spells makes on-farm conservation of vines difficult
- ◇ Markets for OFSP roots not well established:
  - Low volumes of OFSP production; highly seasonal
  - Quality of OFSP roots produced by farmers is variable and poor and not suitable for market
  - Targeted farmers poorly resourced (limited access to land, irrigation) and cannot easily engage in market-oriented OFSP production
- ◇ Farmers not willing to risk planting OFSP (& not WTP for OFSP vines) until markets are established

## Challenges (ctd)

- ◇ OFSP varietal traits not preferred by farmers: low dry matter content; drought prone (esp compared to WFSP)
- ◇ Trainings not cascading down to farmers
- ◇ Low capacity in government partners (high staff turnover, inadequate infrastructure-water, power..)
- ◇ Challenges in managing multiple partnerships
- ◇ BoH not as equally committed in implementing agriculture-sensitive interventions





**Thank you !!**