



MAPPING OF PRO-NUTRITION INTERVENTIONS IN TANZANIA

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Overall:

- To understand how agricultural interventions can impact on nutrition in Tanzania

Specific:

- i. Identify a range of agricultural and other food-related interventions that impact positively on the nutritional status of women and children.
- ii. Distinguish between direct and indirect impacts of the interventions
- iii. Identify factors that could promote the scaling up of interventions that are likely to have a positive impact on nutrition





Population: 44.9Milion (2012)

Land area: 947,300 square kilometres

Human Development Index (2014)

Score: 0.488

Ranked: 159th out 187 countries

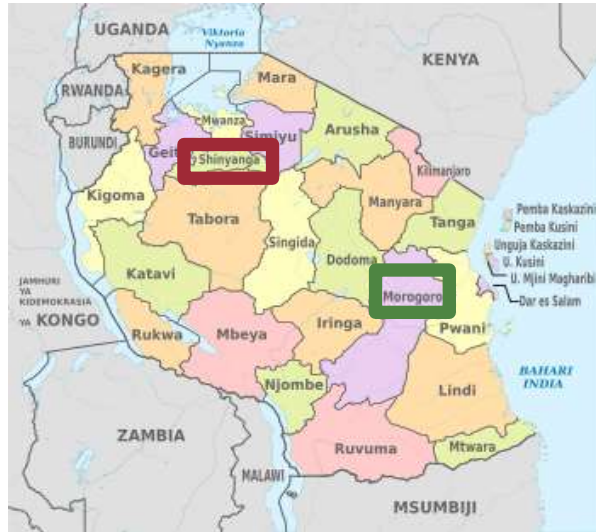
Agriculture households: 5.8million (2008)

Food and nutrition security (2013)

Prevalence of food inadequacy: 41% h/holds

Stunting - children <5 years: 37%





Kishapu (Shinyanga)

Land: 4333sq. Km
 People: 272,990 (2012)
 Rain: 600-900mm/year
 Household size: 7.7



Mvomero (Morogoro)

Land: 7325sq. Km
 People: 312,109 (2012)
 Rain: 700-2300mm/year
 Household size: 5.3



SAMPLING

1. Mapping and profiling of all the interventions undertaken by the government, NGOs and donors which had any reference to agriculture or nutrition.
2. A detailed examination of the project objectives to select six for a more detailed analysis

Criteria for selection:

- being an agricultural project with an explicit objective of improving household food security and/or nutrition status;
- having indicators for measuring nutritional impact; and
- having the possibility of obtaining relevant information about the impact of the project.



PROJECTS SELECTED

Project	Objectives
Mlali Area Development Programme (Mlali ADP)	Improvement in food and nutrition security
Tanzania Social Action Fund (TASAF) Project	Increase household food security and income
NAFAKA Staples Value Chain Project	Reduce income poverty and increase food security especially of female-headed households
Orange Fleshed Sweet Potato (OFSP) Project	Promote consumption of vitamin A and other vitamins
Rice Production Project	Address basic food needs of vulnerable communities
Chick pea Project	Promote consumption of chick pea as a source of protein

DATA COLLECTION

Data collection involved:

- Interviews with Project officials and field staff
- Review of Project documents
- Interviews with Project beneficiaries



MAIN FINDINGS

- ❑ Virtually all the selected projects aimed at increasing household agricultural production by promoting improved agricultural practices and the use of agro-inputs resulting into increased food availability in the household
- ❑ Other projects aimed at increasing household income by promoting market-oriented production and non-farm income generating activities to increase household income, which was used to meet food and non-food (fees, medical and house construction) expenses.
- ❑ Some projects aimed at increasing farm and non-farm income of women by supporting income generating activities, involving them in agricultural value chain activities which lead to women economic empowerment



MAIN FINDINGS...cont'd

- ❑ Most projects aimed at improving women's access to productive resources such as credit, water for irrigation, technologies and livestock for economic empowerment
- ❑ Increased production and income increases household food availability but does not guarantee that the food will be more nutritive nor that all members of the household will benefit
- ❑ Projects that had promoted diversification of agricultural production had a more direct impact on household nutritional status as they led to more diversified and nutritive diets



FINDINGS....cont'd

- ❑ Likewise, projects that targeted women with specific skills of food preparation, processing, storage, preparation of weaning foods, and general women empowerment had a higher chance of directly impacting on nutritional status of household members
- ❑ An integrated approach which includes aspects of basic education, health and sanitation in addition to nutrition interventions is perhaps the most effective in bringing about a sustainable impact on household nutritional status



CONCLUSION

Agricultural interventions likely to have an impact on nutrition should focus on:

- ❑ improving access to productive resources particularly skills in production, processing, marketing, entrepreneurship and nutrition; to credit; and to inputs;
- ❑ targeting women especially for economic empowerment so as to increase their discretionary income;
- ❑ integrating with health and sanitation which have a big influence on nutritional status especially of women and children; and
- ❑ influencing change in attitudes and behaviour regarding nutritional and related practices.



THANK YOU FOR YOUR ATTENTION





Mapping Pro-Nutrition Agricultural Interventions in Ethiopia

Lessons from Tigray and Oromia regions



Background

- ❑ The prevalence of malnutrition in Ethiopia is still high despite the significant progress made in recent years
- ❑ Agricultural development is therefore prioritized by policy makers as a mean to address food and nutrition insecurity
- ❑ However, there is lack of empirical evidence on impact of agricultural interventions on health and nutrition outcomes
- ❑ Hence, this study was motivated to generate evidence in the context of Ethiopian
- ❑ The study covered two regions: Tigray and Oromia



Objectives

- ❑ To document the experience of pro-nutrition agricultural interventions in Ethiopia considering Tigray and Oromia regions
- ❑ To review recent impact evaluations and conduct in-depth case studies
- ❑ To identify best practices: Which agricultural interventions implemented in the study regions address child and maternal nutrition better
- ❑ To identify factors influencing scaling up of best practices?



Methodology

- ❑ Desk review of project and programme documents (published and unpublished)
- ❑ Following three steps
 - First step - collection and profiling of interventions based on a checklist developed by the AgriDiet team
 - Second step: identify those projects with explicitly consideration of nutritional objectives
 - Third step: in-depth assessment of three most significant projects using a framework developed for AgriDiet project





Findings



Number of projects and programs identified



In Tigray

- ❑ 23 projects identified but ten were included for profiling because of availability of sufficient documents
- ❑ Finally, three projects were assessed in detail for their impact on nutrition

In Oromia

- ❑ 32 were identified but 17 were included for profiling
- ❑ Similarly, three projects were assessed in detail for their impact on nutrition

The inclusion criteria- the project is 1) mainly agricultural; 2) having explicit nutritional objective



General observations

- ❑ Most agricultural interventions do not consider nutrition as an explicit objective
- ❑ The primary objective of agricultural interventions is increase in production and productivity
- ❑ Effect of production-oriented interventions on nutritional outcomes was not the focus of most available project evaluations and claims on nutritional impact were based on weak proxies
- ❑ There is significant gap in documentation and reporting of project impacts
- ❑ Qualitative nature of project impact evidence



List of case projects in the study regions

Tigray

- Alleviation of Food Insecurity and Malnutrition in Tigray, Ethiopia through Promotion of Potato and Sweet potato; implemented by CIP and TARI together with local partners, with the financial support of Irish Aid
- Micronutrient program: Promoting production of Vitamin A Rich Food, by WORD VISION ETHIOPIA (1997 to 2001)
- Improving Nutrition and Household Food Security in Northern Shoa and Southern Zone of Tigray, Ethiopia, implemented by MoA, FAO & Regional Food Security Desk (November 2001 until June 2006)



List of case projects in the study regions

Oromia

- Improving Health and Nutrition of Vulnerable Women and Children in Ethiopia (MUSKOKA);
- Pastoralist Resiliency Improvement and Market Expansion (PRIME);
- Milk Matters, part of Save the Children's African Region Pastoral Initiative



Framework used for evaluation

- For each project, we
 - Identified the type of agricultural interventions
 - Impact pathways followed- out of seven potential paths
 - As a source of food;
 - As a source of income
 - Impact on food price
 - Implication for non-food spending
 - Impact on women's control of resources
 - Impact on women's time and care practices
 - Impact on women's own health and nutrition



Framework used for evaluation

- Three types of nutritional impact indicators were used
 - Diet Diversity
 - Micronutrient
 - Anthropometric indicators (stunting, wasting and underweight)



Type of intervention in the Tigray cases projects

Project and main implementer	Intervention type
Alleviation of Food Insecurity and Malnutrition in Tigray, Ethiopia through Promotion of Potato and Sweet potato (CIP & TRI)	Supply of disease free planting materials (potatoes and orange flesh sweet potatoes/OFSP/); training on nursery techniques and farm management; home and school gardens
Micronutrient Program in promoting the production of vitamin A-rich foods; By Word vision Ethiopia;	Promotion of production of vitamin A-rich foods; vegetable seeds and hand tools provision; support to community nursery growing supplying vegetable seedlings; school garden; fruit seedling distribution
Improving nutrition and food security in Northern Shoa and Southern Zone of Tigray, Ethiopia; Implemented by FAO and Government of Ethiopia; Ministry of Agriculture; Regional Food Security	Training related to vegetable gardening, integrated pest management, irrigation, nursery management, pasture regeneration, alternative agricultural income earning activities; provision of vegetable gardening inputs; pasture reseedling; alternative energy sources; health care delivery improvement; capacity building in grass-roots health care facilities; family planning; promotion of vitamin A and iodine supplementation, de-worming

Type of interventions in the Oromia cases projects

Project and main implementer	Intervention type
Improving Health and Nutrition of Vulnerable Women and Children in Ethiopia (MUSKOKA);	training on agricultural production practices; nutrition and health training; establishing home and community garden; provision of agricultural inputs such as vegetable seeds, and pullets; improving capacity of milk producing households and women's group to enable successful handling and marketing of milk; introducing poultry and poultry feed production; facilitating local and national livestock trade fair to facilitate local business linkage
Pastoralist Resiliency Improvement and Market Expansion (PRIME), by Mercy Corps Ethiopia	Improving availability and quality of animal feed/fodder for milking animal and poultry production; training of development agents and community model agro pastoralists in agro pastoral production practices; nutrition and health training; introduction and promotion keyhole gardening, a technology that conserves and uses grey (waste water) in the production of fruits and vegetables for household consumption; provision of feed/fodder voucher to support milking animal during dry season; strengthening rural enterprise producing fodder/feed to improve availability of animal feed throughout the year; promotion of feed processing from crop residue (used for milking animal and animal fattening for sale); promotion of better milk breed through development agent; introduction of post harvest storage technology for grain; barriers analysis to health and nutrition behaviour and accordingly implemented demonstration training on diversified meal preparation at school and farmers training centres; improving capacity of milk producing households and women's group to enable successful handling and marketing of milk; introducing poultry and poultry feed production; facilitating local and national livestock trade fair to facilitate local business linkage; microcredit and loans for livestock traders; training to women in group and individually on health, microfinance, and collective action;
Milk Matters, part of Save the Children's African Region Pastoral Initiative	improving fodder supply (i.e. fodder voucher provided by the project) to milking animal that stay closer to women during dry season;

Agri-nutritional impact pathways in the Tigray cases

Project name	Impact pathways						
	Food source	Income source	Food price	Non-food spending	Women's resource control	Women's time and carrying practices	Women's own nutrition and health
Potato & OFSP promotion	Increased diversification and production	Marketing and value addition	-	-	Support women OFSP traders as income source	Training on processing and innovative food preparation	Reducing Vitamin A deficiency for women and children
Micronutrient Program promoting the production of vitamin A-rich foods, by World Vision Ethiopia; implemented from 1997 till 2001	Yes, increased consumption of vegetable and fruits	-	-	-	-	-	Yes, improvement in Vitamin A availability for women and children
Improving nutrition and food security in Northern Shoa and Southern Zone of Tigray, Ethiopia;	Yes	Yes	-	-	Yes, microfinance provision; training on business development	Yes, energy saving practices; establishment of fuel woodlot	Yes, health care delivery improvement; capacity building in grass-roots health care facilities; family planning; promotion of vitamin A and iodine supplementation, de-worming

Agri-nutritional impact pathways in the Oromia cases

Project name	Impact pathways						
	Food source	Income source	Food price	Non-food spending	Women's resource control	Women's time and carrying practices	Women's own nutrition and health
Improving Health and Nutrition of Vulnerable Women and Children in Ethiopia (MUSKOKA);	Yes, own production and consumption of nutritious food	Yes, improved income and purchase of nutritious food	Yes	Yes, improved income leading to spending on health care and child care	Yes	Yes	Yes
Pastoralist Resiliency Improvement and Market Expansion (PRIME), by Mercy Corps Ethiopia	Yes, own production and consumption of nutritious food	Yes, improved income and purchase of nutritious food	Yes	Yes, improved income leading to spending on health care and child care	Yes	Yes	Yes
Milk Matters, part of Save the Children's African Region Pastoral Initiative	Yes, own production and consumption of nutritious food	-	-	-	-	Yes, unintended benefit	-

Indicators of nutritional outcomes -in the Tigray cases

Project/intervention type and main implementer	Baseline (Yes/no)	Indicator of nutrition outcomes (Yes/No)			Remarks
		Diet diversity	Micronutrient	Anthropometric indicators	
Alleviation of Food Insecurity and Malnutrition in Tigray, Ethiopia through Promotion of Potato and Sweet potato (CIP & TRI)	Yes	Increase consumption of new product (OFSP); no dietary diversity score study; 63% women participants reported increased in diversity	Vitamin A	-	Impact study not yet finalized
Micronutrient Program in promoting the production of vitamin A-rich foods By Word vision Ethiopia;	Yes	Yes, better consumption of green leafy vegetables and fruits reported; no dietary diversity score study	Yes, Vitamin A	Not reported	Impact assessment on Bitot's spots prevalence; in 2000 prevalence of Bitot's spots in preschool children decreased from 6.4% to 0.88% - In school age, from 7.5% to 2.3%.
Improving nutrition and food security in Northern Shoa and Southern Zone of Tigray, Ethiopia; Implemented by FAO and Government of Ethiopia; Ministry of Agriculture; Regional Food Security	No	-	-	-	No explicit reporting on nutritional outcomes; interim reports show general qualitative improvement for over 2 million people

Lessons and way forward

- ❑ Although the evidence is scanty, agricultural interventions that consider combination of pathways have potential to impact on nutritional status
- ❑ Awareness creation and education of household members (mainly women) was common to all project interventions
- ❑ Lack of proper impact assessment:
 - empirical evidence on how agricultural interventions impact on nutrition outcomes along the seven pathways is still lacking
 - evidence on how different pathways are best integrated to impact on nutritional status is not strong
- ❑ Addressing scale issue: It is important to design a project with the appropriate scope and scale to achieve the desired nutritional outcomes through agricultural interventions
- ❑ There is a need for multi-sectoral involvement in planning agricultural interventions in order to effectively achieve desired nutritional outcomes

