

Pro-nutrition Agricultural Project Interventions in Ethiopia



An AgriDiet Research Brief

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Background

Food and nutritional security are frequently referred to as the most important priority challenges facing developing countries. Ethiopia is ranked among the developing countries with the highest level of malnutrition. It is also among the countries with an insufficient annual rate of reduction of malnutrition to achieve Millennium Development Goal 1. Yet, Ethiopia is known for its progress in reducing hunger over the last two decades, often attributed to achievements in agricultural growth.

Whilst there is considerable literature on the impact of agricultural project interventions on food security in Ethiopia, there is little work that shows the specific impact of agricultural or other project-based interventions on improved human nutrition. To this end, the AgriDiet project aimed to identify project-level interventions in Ethiopia which, based on the evidence, have potential to improve nutritional status, particularly of women and children, and which may provide scope for scaling-up. It specifically aimed to answer the following research question:

What existing agricultural initiatives are likely to have positive impacts on nutritional status and have potential for wider application?

A three-stage approach was employed to address this research question: first, mapping of pro-nutrition agricultural project interventions in Ethiopia; second, developing a suitable methodology for assessing the interventions; and finally, conducting a detailed assessment of selected agricultural project interventions that appear to provide scope for scaling-up. This Research Brief presents the results from these phases of the study, in summary form.

Phase 1: Mapping of pro-nutrition agricultural project interventions

The intention of the first phase of the study was to produce an inventory of completed (or ongoing) project-level agricultural interventions, whether implemented by Government, NGOs, or farmer groups, that claim to impact positively on household nutrition, and more especially on the nutritional status of women or children; or which can reasonably be argued to embody such a claim. For this purpose different search methods for published and unpublished reports were used which included searching on the web with key terms, e-mail correspondence with various organizations, telephone calls and face to face discussion with representatives of organizations known to have implemented, or be implementing, agricultural projects with a nutrition focus. The organizations included research institutes (Federal and Regional agricultural research institutes), universities, Ministry of Agriculture and Rural Development at different levels, International Livestock Research Institute (ILRI), USAID, Mercy Corps – Ethiopia, CARE-Ethiopia (Regional and Head Office), SG-2000, Self-Help Africa, Farmers Research Group (FRG-II) project, JICA, Agricultural Transformation Agency (ATA), CISP, Mention Fur Mention, CRS and private consultancy firms among others.

From these organizations, a total of 32 relevant interventions were initially identified. From these, only 17 projects were found to meet all of our inclusion criteria: that is agricultural projects with clear and explicit nutrition objectives, or with clear activities related to nutrition. A large number of projects were not considered, including many identified during the AgriDiet in-country stakeholder workshops, because they did not fit the criteria. These interventions were found to be either purely nutritional projects (without an agricultural dimension) or agricultural projects without clear nutrition goals. Many had a focus on nutritious crops, or nutrition-related training and, while such aspects could certainly lead to a nutritional impact, no documented evidence on measured impact was found to support the claim.

In this study, we had hoped to identify a wide range of agricultural projects directed at improving nutrition. In the process of mapping, however, it was realized that there was a significant lack of agricultural project interventions directly linked to nutrition and of research on the effects of production-oriented interventions on nutritional outcomes; overall, there was found to be a lack of empirical evidence to support much of the claims made for agriculture-nutrition linkages.

Phase 2: Developing a suitable methodology for assessing the interventions

In the second phase, a framework was developed for assessing the projects selected for further investigation. The 17 retained projects were rated into two categories – weak and strong – according to their perceived impact on nutrition, using any evaluative studies or results of nutritional analyses using anthropometric, biomarker or dietary indicators.

Furthermore, three of these projects were selected for more detailed assessment, namely Improving Health and Nutrition of Vulnerable Women and Children in Ethiopia (MUSKOKA); Pastoralist Resiliency Improvement and Market Expansion (PRIME); and Milk Matters, part of Save the Children's African Region Pastoral Initiative.

This involved close investigation of the agriculture-nutrition pathways associated with the intervention; whether the project took into consideration the vulnerability and overall livelihood context of the target population; whether the key elements that determine nutrition had been considered in the design and implementation of the project; and the indicators used to assess project impacts. The seven pathways considered were: agriculture as direct source of food (own production and consumption of nutritious food); agriculture as source of income (improved income and purchase of nutritious food); women's time for caring practice; women's access and control over resources; women's energy/own health and nutrition; non-food spending (improved income leading to spending on health care and child care) and food price pathways.

Phase 3: Detailed assessment of selected agricultural project interventions that appear to provide scope for scaling-up

Using the above indicated assessment criteria, the study found that all short-listed projects considered agriculture as a source of food, and most of them combined agriculture as a source of food and of income. However, with the exception of eight projects rated as strong, the remainder had no evidence on whether the projects introduced nutritious crops or animal source food (i.e. agriculture as a source of nutrition) or whether improved income from employment in agriculture had a positive impact on nutritional status of household members.

The eight projects rated as strong were found to have a commitment to measuring dietary diversity as its measure of impact on nutritional status. These projects include the three selected for detailed assessment and five others; of these five, two projects were completed while the other three were ongoing. The two completed projects reported a positive contribution of own production (i.e. home or school garden) to dietary diversity. Findings from these projects were based on cross-sectional data, however, and so the long term impact of the projects remains uncertain. Furthermore, other important nutrition-related elements – such as improvements in women's empowerment and health seeking behavior – were not reported. Few conclusions could be drawn about the potential impact of the three ongoing projects.

Among the projects selected for detailed assessment, two (MUSKOKA and PRIME) were found to have strong potential to demonstrate the impact of nutrition-sensitive agricultural project intervention along the seven agriculture-nutrition pathways, though the specific pathways differ. The other project, Milk Matters, primarily considered own production and consumption pathways while women related pathways (time for caring) was found

to be an unintended outcome. That is, the study reported the improved fodder availability saved women's time from travelling long distances in search of animal feed, but did not indicate how the saved time has been used. Overall, the review found that PRIME and MUSKOKA have potential in demonstrating the impact of agriculture on nutrition through the seven potential pathways for agriculture- nutrition link. These projects have proposed or implemented all of the pathways in a reasonably integrated manner. The smallholder and pastoralist context where these projects are being implemented requires the combination of different pathways, but this poses challenges in attributing impact on nutritional status to a single causal pathway.

Conclusions and Recommendations

The findings from this review of evidence show that many projects have proposed or implemented agriculture-nutrition pathways, and show considerable potential to impact on nutrition outcomes. However, empirical evidence on how agricultural project interventions impact on nutrition outcomes along the seven pathways is still lacking. Thus, there remains a gap to establish strong empirical evidence that demonstrates the link between agriculture and nutrition along these pathways.

The study concluded that agricultural project interventions that consider a combination of pathways have the greatest potential to impact on nutrition, as measured by intermediate outcome indicators (income, dietary diversity, micronutrient intake, women's empowerment, sanitation and health seeking behaviour), and nutritional status (measured qualitatively, i.e. improved weight of children and women). This conclusion is, however, mainly based on a review of intermediate results of two ongoing agricultural project interventions and one completed intervention. Thus, there is still a need to establish strong evidence on how different pathways are best integrated to impact on nutritional status.

The study recommends further research in pro-nutrition agricultural project intervention areas using a study design that enables the researchers to establish causal links between intervention pathways and improved nutrition - for example, a mix of qualitative and quantitative study design that considers a propensity score matching model, could enable us to compare a project intervention group (treatment group) with a control group (non-project intervention) and thus allow for stronger conclusions on causal links between intervention and improved nutrition.

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