

### **Objectives of the project**

This project will develop local, accessible and affordable food solutions for pregnant women and young children to increase diet diversity through financially viable private sector collaboration and to reduce reliance on public funding.

### **Background**

Ethiopian diets are monotonous and predominantly cereal-based, with very low or no consumption of fruits, vegetables or animal-sourced foods. Diets that are low in diversity have been associated with poor child growth, contributing to high rates of stunting (38.5%) among children under 5 years of age. It also leads to high prevalence of pregnant women with low Middle-Upper-Arm Circumference which can lead to low birth weight of a child. A key cause is the unavailability or unaffordability of nutritious foods for most households.



Figure 1. An Ethiopian mother feeds her child  
©UNICEF Ethiopia/2019/Mulugeta Ayene

Nutrient-dense foods are subject to high loss and waste, given their perishability, meaning they often do not reach the rural markets. Where they do, costs are too high for most households. Given the low purchasing power and low margins, there is insufficient incentive for the private sector producers in to innovate for these markets. The Ethiopian government is committed through several key strategies to leverage food systems to combat malnutrition, focusing largely on mothers, children 0-24 months and adolescent girls. Through different policies and strategies, they have strongly expressed the need for innovative research and capacity building to help implement, learn and support food systems approaches to improve diets.

### **The theory of change to achieve the objectives**

To apply a food systems approach to agricultural transformation innovation, there needs to be collaboration between businesses, research institutions and enabling institutions in the food sector. Through the development of several prototypes of innovative food product, the projects aim to increase diet diversity and increase macro and micronutrient intakes. To ensure a more adequate intake of animal proteins, processing whole eggs into powder and product prototypes has many advantages. Egg powder is a shelf-stable and safer product; it can fill local production gaps through cost-effective transportation; powder reduces food loss through breakage and spoilage; and it can be easily integrated into traditional and commercial recipes.

In addition, among locally available fruits, papaya is a very good source of vitamin A, vitamin C, and folate. Drying techniques offer a good solution to reduce post-harvest losses and secure availability throughout the year and means that smaller portions can be purchased. Thirdly, using a fermented local cereal (*teff*) to produce an enriched staple flat bread "*injera*" through the use of a folate-producing microbial yeast strain (in situ fortification). Enriched "*injera*", could be an innovative solution that could ensure that women have and maintain an adequate folate status before, during, and after pregnancy, while not changing consumption habits.

To develop new animal and fruit source foods that have a long shelf life and that will be affordable, the project will establish a collaboration between research institutions, small and medium national businesses and institutions from the food sector. All these actors will need to be brought together in



a public/private sector collaboration to develop new quality products that are available and affordable and that can help fill dietary gaps. The research institutions will develop the technical approaches with the private sector. Once the production lines are in place, the small and medium business will provide free sample, in exchange to the equipment made available, to be distributed into national safety net programs. The resulting food product prototypes will be as well pushed on the commercial market to create demand and ensure its wide use at country level. Market research will be done in parallel to product development to ensure acceptance of the general public.

### **Main activities**

The project will determine and test the commercial feasibility, and nutritional potential of the different prototypes developed. The main activities will be

- ✓ Surveys such as production testing in collaboration with small and medium national business, acceptability studies to understand the reaction of the developed product among the Ethiopian population and especially pregnant, lactating mothers and children caregivers, and calculation of market costs;
- ✓ Laboratory shelf life testing;
- ✓ Test and development of several production lines in collaboration with national business;
- ✓ Seminars to engage the private sector;
- ✓ Test and develop the social protection-facilitated route to market (samples into national safety programs).

### **Organisation**

The implementation of the project will be a collaboration between UNICEF, GAIN, the University of Addis Ababa (through OSSREA, an NGO linked to the university), the regulatory authorities (EFDA and EPHI) and the private sector. UNICEF will be the project coordinator and will lead the aspect of egg transformation and will test, with the government and other partners, the inclusion of new products into the government social protection scheme. GAIN (Global Alliance for Improved Nutrition, a Swiss-based NGOs) aims to transform food systems to deliver more nutritious foods for all people.

Therefore, they will be leading the technical assistance on papaya prototypes to selected private sector actors in terms of product development, nutrition and food safety, value chain and marketing development. The Organization for Social Science Research in Eastern and Southern Africa (OSSREA) is a regional research and capacity-building organization whose mission is to promote dialogue and interaction between researchers and policymakers in Eastern and Southern Africa, with a view to enhancing the impact of research on policy-making and development planning. In collaboration with the University of Addis Ababa, they will be managing the product development/testing acceptability and will lead the development of the yeast.

To ensure a smooth implementation and buy-in from a large group of partners, a steering committee of agencies in charge of the project will be created with the interested private sectors companies and government.

### **Implementing organization**

UNICEF

### **Partners of the project**

GAIN and OSSREA

### **Other main stakeholders**



The project will also collaborate with the Seqota Declaration Coordination Unit, Ethiopian Public Health Institute (EPHI), Ethiopian Food & Drug Administration (EFDA), Addis Ababa University, Mekelle University and Small and Medium Enterprises working in food processing

**Region**

Ethiopia

**Funding and co-funding**

EU	€ 2,000,000
UNICEF and GAIN will co-fund activities	
Total budget	€ 2,000,000

**Duration**

48 months (2020-2021)

