

GAIN Access to Better Dairy

Developing a sustainable supply chain for affordable and nutritious dairy products in Ethiopia

Executive summary

A Danish-Ethiopian project is on the way to making better use of the milk from Ethiopia's 11 million dairy cows and bringing more nutrition to local, low-income families. If all goes according to plan, a safe, fortified and locally produced yoghurt will be on the market by 2019 – at a price the families can afford.

The three-year project is driven by the GAIN Nordic Partnership with Arla Foods Ingredients as lead business partner and the financial support of Denmark's development cooperation agency, Danida. What's special is the close collaboration between businesses and NGOs – in this case, GAIN (Global Alliance for Improved Nutrition) and the Danish aid organisation DanChurchAid. The Confederation of Danish Industry, which represents 10,000 Danish businesses, is helping to develop the business model.

Drawing on their collective strengths, the goal is to reach low-income consumers in Ethiopia, who live on diets that lack the vitamins and nutrients essential to child growth and development and to living a healthy life. The target groups are children aged three to seven and mothers, who are often malnourished during pregnancy and the breastfeeding period.

Description of the voluntary commitment

A. Project timeline & resources dedicated

2017 to 2020	1.45 million EURO
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B. Case study description

Approximately 38% of Ethiopian children suffer from stunting due to chronic malnutrition. During the 1000-day window from conception to the child's second birthday, malnutrition causes irreversible damage, reducing physical growth, impairing mental development and compromising the immune system. Malnourished girls often leave school early, marry young and give birth to malnourished babies – continuing the vicious circle of malnutrition that traps people, communities and countries in poverty. It is estimated that malnutrition is responsible for a more than 16% loss in Ethiopia's gross domestic product.

The project is driven by the growing year-round demand from children and mothers for safe, dairy-based products. The project engages the entire value chain from smallholder farmers and dairy processors to distribution, sale and consumption.

Before starting the project, the GAIN Nordic Partners conducted an impact assessment of the value chain from sourcing to consumption. This identified potential adverse impacts as well as opportunities for positive contributions to the UN sustainable development goals (SDGs), all of which provided input for the project design.

In mid-2017, the GAIN Nordic partners began cooperating with two local dairies, which will produce an affordable, nutritiously balanced yoghurt for sale in Ethiopian markets and kiosks and for testing in a school feeding programme. At the same time, work is underway to raise public awareness of the importance of good nutrition and the role of milk-based products. The aim is to encourage vulnerable consumers who are exempt from Ethiopia's frequent fasting tradition - children and pregnant or breastfeeding mothers – to include more dairy nutrition in their diet.

The GAIN Nordic partners have co-developed a yoghurt prototype primarily based on local milk and fortified with selected vitamins and minerals to meet criteria for a low price point, appealing taste and good nutrition profile. The product has been developed in close cooperation with Arla Foods Ingredients and will function as a supplement to consumers' daily nutritional intake.

To secure availability of high-quality, local milk, the project is helping smallholder farmers to increase their capacity and build a sustainable livelihood from dairy farming. Strong market connection is key, so one of the aims is to integrate smallholder farmers and local dairies.

C. Governance

GAIN is project lead, heads the multi-sector GAIN Nordic partnership and is responsible for providing nutrition expertise and organising demand creation activities. From the private sector, Arla Foods Ingredients is the main business lead, supporting product innovation and dairy processing; DSM is providing fortification expertise; and two local dairies are responsible for yoghurt production: Loni Agro Industry PLC and Rut and Hirut Milk Cow Breeding, Dairy Production and Processing PLC. DanChurchAid is working with smallholder farmers to improve milk quality and yield and their connection to local dairy companies. The Confederation of Danish Industry is supporting business case development and addressing import barriers for key ingredients. Denmark's development cooperation agency, Danida, has provided 1.07 million EURO in funds for the project and supports partners locally through the Danish embassy.

D. Deliverables - results

- ✓ Based on the impact assessment, DanChurchAid led the development of a general scoping tool for dairy value chain projects. The scoping tool is based on the methodology in the Human Rights Impact Assessment and Guidance Toolbox, designed by the Danish Institute for Human Rights (DIHR). It provides links between potential human rights impacts and impacts related to the SDGs.

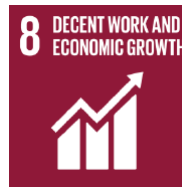
- ✓ Pilot tests with the initial yoghurt recipe have produced promising results. Arla Foods Ingredients is using its whey permeate, an ingredient rich in milk minerals and lactose, to maximise the dairies' yoghurt production and ensure a good taste and texture.
- ✓ The yoghurt will be further fortified with a mix of vitamins and minerals, which has been designed to bridge micronutrient gaps in the current diets of target consumers.
- ✓ Arla Foods Ingredients will transfer knowledge to the two dairies in Ethiopia, upgrading their existing processing methods. Although this work has already started during visits to the dairies, the formal training will take place later in 2018, when dairy representatives will come to the Arla Foods Ingredients application centre in Denmark. The dairies will then be ready to run commercial-scale trials.

Links to the SDGs

The project is heavily influenced by the SDG agenda, and the stakeholders are deeply committed to integrating the SDGs in all possible aspects. Particular contributions are expected to the following:



GAIN Nordic partners are committed to ending hunger by promoting the accessibility, availability and affordability of safe and nutritious food



By working with local stakeholders, the project focuses on sustainable growth while improving working conditions at the base of the pyramid (BOP).



Technological upgrades of facilities and logistics improve the sustainability of production and reduce waste.



Specific project results plus experiences from working as a consortium of very diverse partners will be shared via partnership platforms such as the SUN Business Network.

References:

http://www.gainhealth.org/wp-content/uploads/2016/12/Two-pager-GAIN-A2B-Dairy_May-2017.pdf

<https://www.dieh.dk/publikationer/cases/promoting-sustainability-through-a-multi/>

<https://www.arlafoodsingredients.com/industries/affordable-food/field-and-nutrition-studies/field-studies/ethiopia/> (video link)



Milk farmers in Ethiopia



Ato Kibret Lemm, Loni Agro Industry and Charlotte Sørensen, Arla Foods Ingredients evaluate the first affordable yogurt production at the dairy plant in Sululta, Ethiopia.