



Dairy Cooperatives

Towards economic empowerment for farmers

SNV-EDGET
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For the individual smallholder dairy farmer, it is almost impossible to acquire a strong position in the dairy value chain. By joining forces to form a cooperative, farmers can save money and enjoy a range of benefits, such as buying inputs or transporting milk in bulk, and gaining access to new technologies, loans and inputs. They can also earn a higher profit by negotiating directly with buyers and suppliers. As shareholders, cooperative members also receive a dividend when profits are made from sales of milk and processed dairy products. Moreover, a cooperative serves as an aggregation point where suppliers of agro-inputs and services, processors, financial organisations and other actors in the dairy value chain can reach out to farmers as a group. This reduces the risks and transaction costs of working with hundreds or thousands of individual smallholder farmers.

Nevertheless, it is not easy to establish and manage a cooperative. It is estimated that worldwide only 10% of smallholders are members of a cooperative. Cooperatives may succeed or fail due to a wide range of reasons. These could include management capacity, fluctuating milk supplies and market demand, group dynamics, weak infrastructure, and government policies. Given the complexity of the sector, EDGET initially aimed to work with informal, self-organised farmers' organisations and gradually build their capacity to take on added-value activities such as milk collection, processing and marketing. However, in light of the high cost of establishing dairy processing units and the need to enter into contractual arrangements with diverse suppliers and commercial customers, it became necessary to work with more formalised structures. Formal arrangements were also needed to safeguard project investments, which included expensive processing and cooling equipment.

What did EDGET do?

EDGET's core objective was to link smallholders to the market in order to earn a sustainable income from dairy. The starting point for this was ensuring the efficient collection of milk for processing and marketing.

EDGET played a facilitating role throughout the process of cooperative development to ensure that the selected cooperatives were fully equipped and had sufficient capacity to operate as profitable and sustainable enterprises. Throughout this process, EDGET worked

in close collaboration with woreda (district), zonal and regional level staff from the Cooperative Agency and the Ministry of Livestock & Fisheries Resources Development (see Table 1 on page 5 for an overview of the cooperative structure in Ethiopia).

The following are some of the key steps in this process.



Cooperative staff at a dairy processing unit

Feasibility studies

In 2015, EDGET, in close collaboration with the respective cooperative promotion and livestock development offices, commissioned studies to assess the feasibility of establishing new dairy cooperatives or supporting existing cooperatives in selected woredas and kebeles (villages) in the three project regions. The criteria used in the assessment included:

- Market opportunities for dairy products
- The volume of milk supply
- Availability of institutional support
- Infrastructure (rural access roads, potable water supply, electricity etc)
- Presence and capacity of existing dairy cooperatives

The feasibility studies revealed that not all areas were suitable for cooperative development. In four out of fifteen woredas surveyed in Amhara region, for example, the volume of milk was considered too little or the road system was inadequate. The study found that while some areas of Oromia region already had a well-developed structure of dairy cooperatives, the dairy potential was too low in other areas, such as Gedio Zone of SNNPR.

Community consultations

Following the identification of areas with good prospects for establishing, or strengthening, dairy cooperatives, EDGET project staff together with their government counterparts, convened public meetings to share the findings of the feasibility studies. Where there were no

cooperatives in place, dairy farmers were asked to express their views on the establishment of milk collection centres and dairy processing units and invited to consider becoming members. The basic eligibility criteria for joining dairy cooperatives were also discussed. These included the minimum amount of milk that a farmer should supply to the cooperative on a daily basis, as well as the registration fee and minimum number of

shares per member. An important precondition for EDGET support was that farmers demonstrate their commitment and ownership of the project by constructing a suitable building to house the processing unit, in line with design guidelines provided by the project.

Establishing or strengthening dairy processing units

One of the core investments made by dairy cooperatives is establishing a dairy processing unit. This helps maximise the value of milk and increases the income of member farmers. In areas identified as having potential for establishing dairy processing unit, but where there was no dairy cooperative in place, the Cooperative Promotion Offices took the lead in cooperative formation

and legalisation.

EDGET's contribution included community awareness raising, and purchasing essential equipment, such as aluminium cans for milk collection, milk storage tanks, cream separators and butter churners.

The project also provided cooperatives with lactometers for quality control and a fridge to store the processed products.

Once the legal registration of the cooperative was complete, the next step was to devise a strategy for acquiring members and/or mobilising capital for operational costs. The primary source of funding was through registration fees as well as issuing of shares to members. This varied for each cooperative, and generally ranged from around ETB 50-100 (US\$2-4)¹ for registration fees and ETB 300-500 (US\$12-22) for a share. In the case of Dangila Cooperative in Amhara region, for example (see box on page 4), the General Assembly decided that a new member should buy five shares worth ETB 200 (around US\$8) each, in addition to a registration fee of ETB 100. Subsequently, members had the option of buying more shares to increase their earnings during dividend distribution.

¹ The devaluation of the Ethiopian Birr (ETB) in October 2017 saw a major drop in the currency's value against the dollar and other foreign currencies. The exchange rate used in this Brief is 1US\$ to ETB 23, which was the average official exchange rate in late 2016.



Transporting milk from a collection point



Entrance to Dangila Dairy Cooperative in Amhara region

The EDGET Project

Enhancing Dairy Sector Growth in Ethiopia (EDGET) is a five-year dairy development project implemented in 51 woredas (districts) in the three regional states of Oromia, Amhara, and the Southern Nations, Nationalities and Peoples' Region (SNNPR). The overall goal of the project is to contribute to enhance the livelihood of 65,000 smallholder farmer households through improved dairy production and marketing. The specific goals of the project are to: (i) to double the income of smallholder households from dairy production, and (ii) improve the nutritional status of children, particularly in the first 1,000 days of their lives, through consumption of milk products.

EDGET also seeks to complement the significant investments made by the Government of Ethiopia to promote the contribution of the dairy sector to the country's economic development.

EDGET is implemented by SNV-Netherlands Development Organisation, Ethiopia, and funded by the Embassy of the Kingdom of the Netherlands. It builds on the work of previous Dutch-funded dairy sector programmes, including the Business Organisations and Access to Markets (BOAM) programme (2005-2011) and the Market-linked Innovation for Dairy Development (MIDD) programme (2011-2012).

For more information, please visit the project website at: www.snv.org/project/enhancing-dairy-sector-growth-ethiopia

Organising farmers into milk collection centres

Milk collection centres (MCCs) bring together several groups of dairy farmers within a locality to make it easier to aggregate their milk and deliver it to the nearest dairy processing unit. While MCCs are not legal entities they serve as branches of a dairy cooperative as most members are also members of the respective cooperative.

The project provided support to MCCs through supplying them with kits to monitor milk quality, as well as milk containers and transportation equipment. During the project period, EDGET established 38 MCCs in the three project regions, contributing to a significant rise in milk supply to dairy cooperatives in these areas.

Initial training

EDGET organised technical and business training sessions for cooperative management and inspection committees, technicians and sales staff, as well as the woreda cooperative experts. The training covered such topics as cooperative management, marketing and record keeping, hygienic milk handling and production and quality control.

Opening ceremony

The opening ceremony was an important milestone in the establishment of each cooperative, providing an opportunity to promote itself and introduce its products. The event was also used to create awareness about the nutritional benefits of dairy products by distributing free milk to school children and transferring health messages through drama and other performances. Each event brought together a wide range of participants, including local government officials, cooperative members, school teachers and students, health centre workers, health extension workers, milk retailers, pregnant and lactating mothers, and the surrounding community.

Coaching and backstopping support

A diverse network was mobilised to provide technical and management backstopping to the emerging cooperatives. Specialised EDGET field staff worked closely with technical experts from woreda and zonal Cooperative Promotion Offices. EDGET experts visited each cooperative at least once a month and were also available to provide follow up support on request.

The cooperative promotion officers continued to play a key role in follow up training and support, with a focus on management issues such as membership development, internal

capitalisation, business plan development and revision of by-laws. They also provided audit services and short-term training and facilitation of cooperative general assemblies.

Improving gender balance

One of the findings of an EDGET gender study conducted in 2016 in SNPPR region was that despite their heavy involvement in dairy production activities, women remained greatly underrepresented right across the value chain. The study recommended that EDGET make more efforts to prioritise the participation of women in project activities. In consultation with Cooperative Promotion Offices, EDGET decided to introduce new gender-sensitive criteria for cooperatives and their associated dairy processing units. One of the new requirements was that at least three women should be elected to leadership positions in one or more of the management committees. Efforts were also made to recruit women technicians to run the milk processing equipment. As shown in Table 1, while not all cooperatives had managed to fully implement this measure by the close of the first EDGET phase, some progress was made in improving the gender balance. Out of a total of 178 management committee members in EDGET-supported dairy cooperatives, nearly 20% (34) were women.

Facilitating market linkages

Once the dairy processing units had become fully functional, a key task of the cooperative management was to ensure a stable market for milk and other dairy products. Each cooperative established a market linkage committee, comprising staff of the dairy processing unit, EDGET project representatives, and staff of relevant government offices at the woreda level. One of the tasks performed by these committees was to assess demand in the local market as well as further afield and to identify potential bulk buyers for milk products, such as private cheese makers and restaurants, who could enter into a contract for regular supply of milk. Initially, EDGET supported cooperatives in the negotiations as well as contracting process to ensure sufficient capacity was built to negotiate a fair price and protect the interests of members. In Amhara region, for instance, multi-stakeholders business-to-business meetings were conducted at the zonal level. This enabled industrial milk processors and private cheese makers to establish relationships with one or more dairy cooperative, helping to address the challenge of inadequate, or unreliable, supplies of raw milk.

Some cooperatives experimented with innovative strategies to encourage women's participation. In East Shewa zone of Oromia region, for example, it was decided that household membership in the cooperative should be in the name of the wife and not the husband.



Training session on maintenance of dairy processing equipment

Table 1: Organising dairy farmers for milk collection, processing and marketing in the EDGET intervention area

Level	Type of organisation	Functions	Governance
Kebele/ Group	Farmer milk group A collective of around 20-25 dairy farmers in a locality.	Farmer milk groups organise the transportation of milk to MCCs. The means of transport differ from place to place and may include horseback, cart, or children who deliver the milk on their way to school.	Each group has a management committee composed of lead farmers selected by members (five in Oromia and three in Amhara). Each household is represented by one member who is usually male.
	Milk collection centre (MCC) Typically comprises one to three farmer milk groups delivering milk to one aggregation point at the kebele level.	MCCs serve as a central point for collecting milk and delivering it to the dairy cooperative.	The MCC is not a legal entity in itself, but is considered a branch of the dairy cooperative to which it belongs. MCC members are also members of the local cooperative.
Woreda/ Kebele	Dairy cooperative and dairy processing unit Dairy cooperatives can operate at woreda or kebele level. In Oromia region, for example, there are usually three or more cooperatives in each woreda. In Amhara and SNNPR the number of dairy cooperatives in most EDGET-supported woredas is usually not more than one.	The dairy processing unit is the operational arm of a primary cooperative. Dairy processing units receive fresh milk from farmers and package it for distribution to the market. MCCs can also play a role in producing diverse milk products, such as skimmed milk, butter and cheese. Additional roles of dairy cooperatives include the procurement and distribution of inputs and providing extension services to farmers.	Each dairy cooperative is led by a management committee composed of 5-7 members. The management structure comprises several sub-committees, with three members each. The sub-committees are responsible for such tasks as inspection, procurement and sales, gender, loans and training, although the number of functional sub-committees may vary per cooperative. Hired staff including technicians, sales person, the manager and the accountant are not represented in the management committees. Committee members are elected during general assemblies, of which at least two are organised each year. During general assemblies, each household is represented by one member. This is usually the head of the household and in most cases male.

Key results

Establishing a network of dairy processing units and milk collection centres

As the basic organising unit of dairy farmers, milk collection centres are an important first link between farmers and the broader market. Over the course of the project, EDGET supported 54 dairy processing units and 38 milk collection centres.

By December 2017, a total of 3,198 dairy households were linked with the formal milk market through the DPUs and MCCs. At 20% of the original target, this figure was much lower than expected and reflects the realities that EDGET faced in trying to stimulate cooperative development in the three project regions. The reasons for adjusting initial targets are explained in the lessons section below.

Women made up about 12% of cooperative members. The following table provides an overview of cooperative development in the three project regions.

Table 2: Number of functional cooperatives and membership in the three regions

	Amhara	Oromia	SNNPR	Total
	18	22	14	53
Male	978	785	586	2349
Female	107	524	118	749
Total	1085	1309	704	3098

Boosting income for milk producers

In late 2017, EDGET conducted a performance assessment of 19 dairy cooperatives established in that year across the three regions. The total membership of the cooperatives was 1,362 households, who supplied nearly 250,000 litres of milk in the first six months of the year.

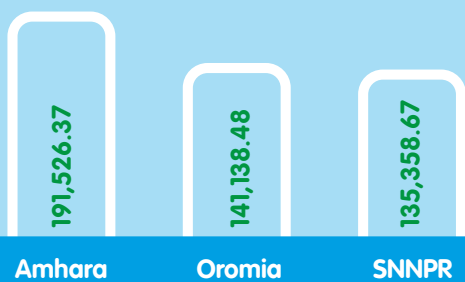
The dairy cooperatives produced and sold a range of products such as butter, 'Ayib' (local cheese), yoghurt, skimmed milk and whole milk. In the same period, total sales for the 19 dairy processing units was ETB 3,150,831 (approximately US\$135,000). The cooperatives earned a total profit of ETB 286,433 (US\$12,300), or roughly 9% of total sales. Of the total costs incurred by the cooperatives during this period, approximately ETB 2.5 million (US\$107,500) – almost 90% of expenditure – was spent on payments to dairy farmers, while the rest was spent on staff salaries and maintenance costs such as electricity, water, charcoal and washing utensils.



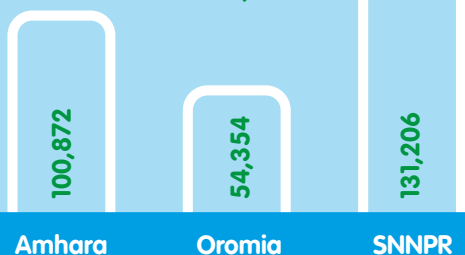
Farmers in Amhara region receive equipment from EDGET for their milk collection centre.

Figure 1 and 2: Cooperative sales and profitability, January to June 2017

Mean sales volumes for dairy products, January to June 2017, in ETB



Profits, January to June 2017, in ETB



Since the overall goal of dairy cooperatives is to link members to the market and boost their income, this result indicates that the dairy cooperatives were successful in channelling most of their income to smallholder dairy farmers.

The following tables provide a break down of sales volume and profitability of the 19 dairy cooperatives in the first half of 2017.

Stimulating employment opportunities in the dairy sector

The 54 EDGET-supported dairy processing units created job opportunities for 111 people. As highlighted in the next table, it is noteworthy that more than half of these employees were women.

Table 3: Cooperative staffing and gender ratio

DPU staff	Amhara	Oromia	SNNPR	Total
Male	19	22	10	51
Female	27	17	16	60
Total	46	39	26	111



Dangila Cooperative

Dangila Cooperative provides a good example of internal capitalisation. After entering into a contractual agreement with an industrial milk processor in Bahir Dar town in February 2017 the cooperative's dairy processing unit established five milk collection centres to increase milk supplies. This led to a seven-fold increase in milk deliveries to the cooperative, from an average of 200 litres to 1,500 litres a day. The cooperative purchased two refrigerators worth ETB 20,000 (approximately US\$900) and invested in a new electrical cream separator worth ETB 105,000 (US\$4,500), in addition to the manual cream separator initially provided by EDGET. Funding for these investments was mobilised through selling additional shares to members of the cooperative and contributions by new members of the five milk collection centres.

Alcohol testing before transporting
milk from Dangila Cooperative to Bahir
Dar processing factory.

Lessons learnt

EDGET's integrated approach to supporting the dairy value chain (see other practice briefs in this series) is a crucial factor in the successes achieved so far. This approach involves, among other interventions: ensuring a sustainable supply of quality forage seed and calf feed; introducing affordable and hygienic containers for milk collection and transportation (Mazzican); reinvigorating the extension system; building a network of agro-input dealers and dairy cooperatives to provide added-value services to farmers; and developing strategic market linkages.

EDGET's support to dairy cooperatives provides a good example of how the project has steadily evolved its practice, building on lessons learnt to change and adapt to realities in the project regions. Initially, the project had expected to play a "hands-off" role, mostly providing support to existing cooperative structures to scale up their operations, expand their market and earn decent profits for their milk. However, it soon became clear that EDGET would need to be more actively involved in strengthening cooperatives. It also took much longer than initially expected to establish fully functional dairy cooperatives. Among other reasons, this was due to the complex process of procuring dairy processing equipment from abroad, as well as the time needed to officially register the cooperatives and mobilise members. Institutional and governance constraints presented another bottleneck that needed to be addressed through a gradual and systematic process of building management and governance capacities in the different cooperatives.

Some of the implications of this "reality check" was a significant reduction of the number of dairy cooperatives supported by the project. By the end of the project, a total of 92 dairy processing units and milk collection centres were receiving EDGET support. This was around 58% of the initial five-year target of 160. The disappointing gender ratio in cooperative membership and management also necessitated more proactive measures to ensure gender equity. Moreover, the project played a greater role than initially anticipated in supporting cooperatives to negotiate with potential clients and suppliers, and hence strengthen their bargaining power.

A number of specific conclusions emerge from these experiences:

Building strong cooperatives requires a gradual and context-sensitive approach

EDGET's initially aimed to link hundreds of informal Dairy Farmer Extension Groups established as part of the project to existing dairy cooperatives. However, feasibility studies revealed that many existing cooperatives and dairy processing units were non-operational or very weak, while in some regions milk production was too low. This led to the decision to

actively promote milk collection centres in high milk-producing areas to ensure a steady supply to dairy cooperatives. By opening up milk collection centres to all interested farmers, and not only members of dairy cooperatives, EDGET further boosted milk supplies to the dairy processing units and extended the project's benefits to a broader range of dairy farmers.

Using creative approaches can open up avenues to address entrenched gender inequities

EDGET played a critical role in raising awareness on women's contribution to cooperatives. This was not always easy and required finding ways to tackle existing social practices, such as taboos against women selling milk in certain markets. However, this success was also dependent on tackling other underlying factors in women's weak representation (see Practice Brief 5 in this series). Among other measures, the project introduced a number of women-friendly technologies and took proactive steps to require both men and women's participation during training sessions.

Conclusions from the 2017 external evaluation

The endline evaluation of the EDGET project carried out in late 2017 found that dairy cooperatives address – or have the potential to address – key gaps in existing output markets for milk and milk products for quality standard buyers who can purchase from smallholder dairy farmers. SNV's overall support in establishing and developing dairy processing units was found to be effective although considerable challenges were faced due to the slow pace of market development and other contextual factors. The evaluation also found that delays in the provision of equipment affected the functionality of dairy cooperatives and processing units. Some were even found to have stopped collection at the time of the evaluation.

Dairy cooperatives continue to face difficulties in establishing market linkages limiting their ability to purchase and sell on the milk produced by farmers. Management issues further undermine their functionality and operations. Despite these cooperatives have increased interest in dairy farming and facilitated recognition of the importance of milk quality. However, it is too early to assess their full contribution to increased incomes for dairy farmers and the sustainability of the investments made so far.

Adapted from the final evaluation report

There is scope to further stimulate local markets through involving other market actors

After five years of implementation, EDGET has gained valuable insights on what is needed to further open up milk markets at the regional and higher levels. For example, there is some interest among some of the agro-input dealers supported by the project to establish private milk collection centres (See Practice Brief 7 in this series). The government strategy to organise rural youth to establish dairy enterprises offers an opportunity to boost milk supplies, which continues to be one of factors preventing some dairy cooperatives from maximising their potential. Enterprising farmers and small and medium enterprises could also be encouraged to offer milk aggregation and distribution services in some localities. EDGET could provide incentives for these new actors by, for example, involving them in milk handling and market skills training activities and providing them with hygienic milk containers.

EDGET's experience shows that additional bottlenecks at the farm level will need to be addressed to fully tap the milk production potential of smallholder farmers

Explore new strategies to cater for unmet needs in the sector

To address current gap between milk demand and supply, especially in urban and peri-urban markets, there is need to expand the focus beyond improved milk collection and distribution channels. EDGET's experience shows that additional bottlenecks at the farm level will need to be addressed to fully tap the milk production potential of smallholder farmers. One such challenge is the lack of effective breed improvement programmes and the need to ensure reliable access to high quality AI services for smallholders. Other challenges relate to the lack of spare parts for milk processing equipment and inadequate maintenance skills for processing equipment at the local level.

Well-functioning dairy processing units, as well as the larger agro-input dealers, could provide a solution for this gap in some areas by including AI in the package of embedded services offered to members and clients.

Similarly, investing in building a critical mass of locally-trained technicians will not only provide new livelihood opportunities for unemployed youth but is an essential step in ensuring that the massive investments already made can be sustained in future.



Inauguration ceremony for the dairy processing unit at Dangila Dairy Cooperative

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A set of longer farmer stories is also available.

Once published, all publications in this series will be available online via the following link: www.snv.org/project/enhancing-dairy-sector-growth-ethiopia/

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