



Recovery and rehabilitation of the dairy sector in Lebanon

Supporting the agriculture livelihood in improving the dairy value chain in a protracted crisis context

→ **Context** The agricultural sector in Lebanon, and particularly the milk and dairy sector, is a major source of income for poor rural communities. This is especially the case for households who do not own land. Almost 60 percent of livestock farmers in Lebanon depend on dairy as their main source of living and over 70 percent of dairy farmers are categorized as poor or very poor. FAO, in collaboration with the Government of Lebanon and its Ministry of Agriculture, carried out recovery and rehabilitation activities aimed at prompting sustainable milk production and improving the food safety standards (quality and hygienic standards) of the dairy industry to safeguard consumers and improve milk prices.

→ **Challenge** Lebanon suffers from a serious deficit in its domestic production of essential food supplies, so it currently strongly depends on imports, particularly of animal products and cereal crops (75 to 80 percent). Production capacities worsened after the conflict of July 2006. In particular, the dairy sector - mainly goat and sheep milk - has been exposed to several constraints over the last decade, with producers experiencing reduced income and losses due to a combination of factors: several years of conflict, meagre resources, unhygienic practices, lack of experience and low level of skills.

→ **Methodological approach** The following components were key to the practice's approach:

- **Distribution** of basic equipment for quality dairy production and training beneficiaries on the use of the provided inputs: electrical milking machines, detergents and disinfectants, stainless steel milk jars and milk filters, along with medium-sized dairy processing units to women-headed households producing local varieties of cheeses and yoghurt.
- **Construction** or re-activation of milk collection and cooling centres, which were provided with ten insulated milk transportation trucks, cooling tanks and other critical equipment to maintain milk freshness.
- **Training** of 3 500 dairy producers and technicians on topics related to the dairy value chain: from improved animal feeding management, forage production and cow reproduction techniques to hygiene and sanitary norms in milk processing and transformation. Farmers were also trained on new technologies to enhance the production of yoghurt and local varieties of cheese, making them healthier and more marketable.
- **Development of capacities** for employees in milk laboratory tests, following the establishment of milk collection and cooling centres and training of 80 inseminators and 27 new graduate inseminators on the use of new artificial insemination kits.
- **Set up of a network** of producers' cooperatives to help them achieve economies of scale in their production, and strengthen their power of negotiation on milk prices.



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Key facts

Location → 300 villages from southern Rashayya Caza to the northern border of Akkar governorate passing through West, Central and North Bekaa as well as Minnieh-Donniyeh Caza and other villages from northern Lebanon.

Key partner → Ministry of Agriculture of Lebanon.

Resource partner → Funded by the Multi-Donor Trust Fund (Lebanese Recovery Funds) within the project "Recovery and rehabilitation of the dairy sector in the Bekaa Valley and Hermel-Akkar Uplands".

Target Groups → 3 500 dairy producers, almost one-third of whom are female-headed households.

Gender → Milk transformation is traditionally done by women and youth in Lebanon. They generate significant household cash income through sales of dairy products. Given their importance in the sector, women were carefully selected and included among the beneficiaries. In addition, traditional Lebanese dairy products (cheese, aricha, laben, labneh) are major contributors to protein and micronutrients intake and therefore key to improving nutritional status, particularly for children, women and the elderly.



How do the recovery and rehabilitation of the dairy sector contribute to increasing resilient livelihoods?

Improved livestock health and production are key components of resilient agricultural livelihoods. In particular, a well structured dairy value chain from production to consumption decreases food safety risks and ensures a stable and sustainable income for vulnerable farmers. Given the importance of the dairy sector in Lebanon, rehabilitation of this sector represents an important opportunity for building resilient livelihoods for many farmers, encouraging safe nutrition and generating income. FAO's intervention thus sought to support small-scale and poor dairy farmers with a focus on improving the quality and hygienic standards of milk and dairy products to safeguard Lebanese consumers and improve the milk prices.

→ **Impacts** FAO and the Ministry of Agriculture of Lebanon provided technical and institutional support to over 3 500 vulnerable farmers to produce more and better quality dairy products and to be part of sustainable dairy cooperatives. The project's impacts are visible at three different levels:

- **At household level**, the project contributed to increasing farmers's capacities for food production and income, as well as improved milk safety and quality, resulting in better milk prices. Thanks to the project's activities, the proportion of discarded milk fell by 90 percent. The fertility of dairy cattle also improved: the artificial insemination techniques showed a success rate of 51 percent.
- **At community level**, the project established or upgraded 34 village dairy producers' associations (VDPAs) and 40 milk collection centres. The cooperatives helped strengthen the producers' market power and the collection centres helped to maintain products freshness. Hence, milk prices stabilized at LBP 1 150 to 1 200/kg at the factory gate, and LBP 1 000 to 1 050/kg at the farm gate. Women-headed small dairy farms received equipment for processing dairy products and training on production and sale techniques, in order to improve their income.
- **At national level**, the project created a National Union of Milk Producers and reinforced the capacities of the Ministry of Agriculture.

Improved production and processing techniques as well as improved milk safety measures result in **increased income from the sale of dairy products**

The combined activities at household, community and national levels contributed to the **overall strengthening of the dairy sector in the country and the overall increase in the value of milk**

→ **Sustainability** The components of the project that have greatest sustainability are those that witnessed full cost recovery and favourable market prices, such as:

- **home dairy processing**, which has improved traditional dairy products, targeting especially women;
- **setting up village dairy producers associations** that have maintained milk collection centres, thereby improving hygiene standards and quality and increased milk prices for farmers;
- **artificial insemination services** whose trained and equipped inseminators are flourishing and supporting the sector.

In addition, one of the main sustainability factors are the public-private partnerships established by the project, for the organization and management of the milk collection centres, thereby improving their chances of becoming self-supporting and sustainable.

Establishment of **public-private partnerships** for managing the milk collection centres builds sustainable and resilient livelihoods

→ **Replicability and scaling up** In order to replicate the activities, the two main components of the practice - equipment distribution and training - should be maintained and scaled up to create additional VDPAs. Producers associations are crucial to ensure a fair market for small dairy farmers, and the positive results on their income will facilitate the scaling up in other regions. Furthermore, in establishing the National Union of Milk Producers, FAO's interventions have supported the Government in enhancing awareness on the socio-economic importance of the dairy sector. There is a growing demand from producers and consumers in other regions of Lebanon to expand the activities to secure rural livelihoods and provide safe dairy products to local markets.

Equipment and training are key components of this practice while partnerships should be scaled up by **creating additional producers associations** in other regions

TESTIMONIAL

"In the past, we used to work for about 20 hours a day to earn enough money to survive the following day. We sold raw milk to factories at very low prices, prices that only suited them. Today, thanks to the interventions, our lives have changed. I am so glad I will be able to enrol my kids in school! Now, at times, we don't know how to meet the demands that come to us from nearby cities and the capital, as people come to us from everywhere. They like the cheese we produce"

Georgette, Lebanese dairy producer



→ More information

Bruno Minjauw, Resilience and Liaison Officer: [Bruno.minjauw@fao.org](mailto: Bruno.minjauw@fao.org)
Markos Tibbo, Livestock Officer: [markos.tibbo@fao.org](mailto: markos.tibbo@fao.org)

On resilience good practices:

- [KORE@fao.org](mailto: KORE@fao.org)
- [www.fao.org/in-action/kore/good-practices/en/](http: //www.fao.org/in-action/kore/good-practices/en/)

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