



Danone Ecosystem Fund Margarita Program — Creating a sustainable value chain for milk in Mexico

The Margarita program, developed by Danone Ecosystem Fund with the support of Danone Mexico, in partnership with TechnoServe and the InterAmerican Development Bank, aims to create an innovative and sustainable value chain for milk in Mexico. The aim over the length of the project (2010-2023) is to create a scalable model in dairy agriculture that can empower a new generation of dairy farmers: training and supporting them in animal welfare practices, creating efficiencies through digital technologies and connecting them with multiple buyers. The project also seeks to tackle climate change challenges to place dairy farming in Mexico on a secure and sustainable footing for the future.

Specific objectives of this phase include:

- 900 farmers to be trained and given long-term contracts to supply milk to their organizations or milk collection partners
- Reduce GHG emissions and strengthen carbon capture in soil
- Increase soils' capacity to hold water
- Enhance farms' biodiversity
- Reduce the use of agrochemical inputs

The impetus

Dairy farmers in Mexico typically manage small quantities of cows that they inherit from their families. They are not trained in professional dairy management. Many are not aware of the critical relationship between the quality of grazing, the pregnancy cycles of dairy cows, animal health and welfare and optimum milk outputs. Consequently, both milk quality and yield are low, and farmers' livelihoods are fragile.

In Mexico, a growing deficit has led to a high percentage of imported milk. The ambition of Danone Fund Ecosystem is to raise the standards of dairy farming in Mexico, to ensure that farmers have access to markets for their milk and, as a result, enjoy an improved quality of life. This will allow all the actors of the industry to benefit from adequate local sourcing and a reduction in reliance on imported milk powder for both environmental and social reasons.

The solution

The Margarita project has been organized through farmer cooperatives, with Danone as a first buyer guaranteeing stable and fair prices for quality milk delivered. The program has driven changes in dairy farming alongside farmers

in their cooperatives through two major inputs: training and technology. In the first phase, Danone coordinated 20 hours of training to individual farmers, followed by one-to-one support. The training, which included everything from entrepreneurial skills to animal health and welfare, was delivered through an ecosystem of trainers and veterinarians, supported by flexible finance (in the form of low-interest loans through the farmers' unions). These funds enable farmers to invest in critical assets such as automatic milking machines. Farmers were supported to implement good regenerative agriculture practices on their farm, preserving the soil, reducing CO₂ impact and helping their resilience in times of water scarcity.

The later phase introduced new technologies that are used in high-tech farms in Holland and in the USA. One such technology included advanced collar sensors on the cows which collect and analyze critical data such as fertility periods, disease detection, feeding and movement. These data points enhance the farmers' knowledge of their herds and can improve productivity.

Farmers enrolled in the program have seen their revenues multiply three times over, turning subsistence farming, often supplemented by other income, into a key earning opportunity for the family. The herd becomes a critical asset to be nurtured and handed down to the next generation.

Three key learnings

- 1. Robust data collection gives farmers a baseline from which to judge progress:** Transparency on milk yields helped motivate farmers by showing them improvements. Yields were particularly high in the first year, after which increases tended to flatten off. The project focused on all smallholders however, with a specific focus on the ones that can have the greatest potential for learning and development, and thereby the greatest impact.
- 2. Successful adoption increases when involving farmers who were already convinced of regenerative practices:** Introducing advanced technologies was most successful when applied to farmers who were already convinced of the practices and were keen to participate.
- 3. Need to convince farmers of the long-term benefits of the project:** Convincing farmers of the value of a stable and a long-term relationship with Danone as a buyer is critical. While competitors' prices might rise and fall, Danone offers a secure payment system with loyalty bonuses for those who stay with them.



OP2B Pillar 1:

Scaling up regenerative agriculture

This pillar defines specific actions within the value chains of OP2B members on regenerative agriculture. Scaling up alternative farming practices will leverage the power of plants to keep carbon in the soil (carbon sequestration), increase the capacity of soils to hold water, enhance the resilience of their crops, support the livelihoods of their farmers, and regain the nutrient density of food while decreasing reliance on synthetic inputs. OP2B has carried out a series of case studies of regenerative agriculture initiatives by member companies.

This case study falls under pillar 1.

What's next?

The objective is up e project. For this, there is a need for more efficient training models, using remote learning, and lower implementation costs. The project would like to recruit around 200 more farmers (from its current base of 500 farmers). Building on these measures, the aim is to move from a pilot to a fully operational model. Under this model, Danone and other industrial partners market could work directly with milk farmers to help build a successful milk market in Mexico.

Impacts as of 2021

- 500 farmers trained and entered onto the program
- 3,600 family members positively impacted
- Revenue increases of 3 x for project small-holders
- 40 pilot farms for the use of advanced technologies

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