## Swiss support revives dairy farming in Koshi

Dairy farmers are expanding production with technical support from Swiss experts of Sahaj project by introducing new products such as flavored milk. cheese, and lassi, even as they continue to struggle with labor shortages and competition from illegal imports.

## Ashim Neupane

xpanding her farm has become a practical goal rather than a distant dream for Laxmi Amdangde, a dairy farmer from Mechinagar-12 in Jhapa. After five years in the business, the Amdangde family now plans to increase their herd from seven to 15 cows— encouraged by the fact that milk no longer goes to waste in the region as it once did.

Until a few years ago, recurring 'milk holidays' announced by dairy companies had discouraged farmers across the country, forcing many, including the Amdangde family, to scale down their operations. But the situation has changed gradually as local dairy firms have begun diversifying their product lines, adding products such as lassi, flavored milk. yogurt, and various types of cheese.

"We produce an average of 80 to 90 liters of milk every day. The price we are getting from the nearby dairy firm is good," says Amdangde. Dairy farming is the sole source of income for the Amdangde family.

With confidence growing, they plan to double their number of Holstein cows within the next year. Their only concern now is the shortage of manpower, which could make managing a larger herd more challenging.

In Koshi Province, farmers have traditionally suffered milk holiday during flush season, particularly because dairy firms have had limited product options.



"Now, even if we produce 200 liters a day, it will not go to waste," said Ambandgde. The family supplies its milk to nearby Ritika Dairy.

According to Yogendra Chimariya, director of Ritika Dairy, milk holidays used to be unavoidable in the past because dairy producers lacked diversified products. "With the introduction of new products, milk is no longer getting wasted," he said.

A project called 'Sahaj', Swiss government funded. has become a boon for both

farmers and dairy companies in the province. Through its technical and financial support, farmers no longer worry about selling their production, while companies are able to collect more raw milk and expand their production lines.

The Swiss-funded project has been supporting dairy enterprises in the province by helping them develop diversified dairy products such as Gouda, cheddar, and mozzarella cheese, cup lassi, and flavored milk. The project provides technical assistance to both the private and public sectors. Among its most appreciated interventions is the expertise of Swiss specialists through Swisscontact, who transfer Swiss knowledge and skills directly to local dairy businesses.

One of Sahaj's most successful interventions has been at Ritika Dairy. The Jhapa-based company had long planned to introduce flavored milk but was hesitant to take out a loan to launch the product. "We were unsure about the capital required, and we were holding back because if the product didn't perform well, the company would face difficulties," Chimariya said.

Sahaj stepped in to share the risk in the areas where the company was struggling. The project contributed Rs 5 million for installing the machinery needed to produce flavored milk and brought in technical experts to guide the process.

"Without their support, we might have entered the market only after two to three years, or even longer. The partnership helped us move much faster," Chimariya added.

The benefits have extended well beyond the firm itself. Ritika Dairy now collects an additional 500-700 liters of milk per day to meet demand for its new product line.

Koshi Province produces 514,752 tons of milk annually, according to the Directorate of Livestock and Fishery Development in Biratnagar.

Following Sahaj's intervention, Ritika Dairy has installed a fully automated bottle-filling, heat-sealing, and retort system, enabling it to produce 3,000 bottles of flavored milk a day.

The push for product diversification has not stopped at flavored milk. Growing interest in cheese across the region has opened another front for improvementone where Swiss experts have played a key role in modernizing production and raising quality standards.

In late 2023, Sahaj placed a Swiss cheese expert at Adhunik Nepal Dairy Pvt Ltd in Chhitre, Taplejung. Until then, the factory produced only Kanchan cheese. "The

expert stayed for a month and trained us in new cheese-making techniques. It helped a lot," Gyan Bahadur Sunuwar, technical in-charge of the factory, said.

Since receiving the training, the company has begun supplying cheese to Biratnagar, Pokhara, and Kathmandu. Around 300 farmers are now linked to the factory. Previously, it collected only 1,500-1,600 liters of milk a day. After the intervention, collections increased by 500 liters to 2100-2200 liters a day, according to Sunuwar.

The factory now produces Gouda and mozzarella cheese in addition to Kanchan cheese: 204 kg Kanchan cheese, 190 kg Gouda cheese, and 180 kg mozzarella cheese daily. "The demand for our new products is huge. We have plans to increase production further," Sunuwar said.

Farmers are equally pleased, as they previously faced two to three milk holidays a week when only the state-owned Dairy Development Corporation (DDC) collected milk. With the factory now producing multiple cheese products and absorbing more milk, and with DDC often delaying payments, farmers now no longer fear wastages of their production.

The technical push has advanced further with the arrival of another Swiss expert

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in eastern Nepal in late October. Building on progress in Taplejung, the expert is now training the team at Fikkal Dairy. Until recently, the factory produced only basic mozzarella, which never reached commercial scale.

"Previously, we were producing mozzarella, but it couldn't go commercial. Now the company is ready for commercial production," said Swiss expert Ulrich Böhlen.

Under his guidance, the dairy has begun producing mozzarella, cheddar, and a Swiss-style cheese, each requiring precise technical adjustments. One major improvement that has happened is proper pasteurization of milk. Since farmers were milking their cows manually, there was a risk of microbial contamination. While raw-milk cheese is common in Switzerland, Nepal's raw milk often has higher microbial loads and lower fat and solids-not-fat (SNF) content which make pasteurization essential, the expert said.

To improve quality, the dairy now adds calcium chloride after pasteurization—an important step that had previously been missing. This, along with other technical corrections, has strengthened cheese texture and yield.

"All the technical parameters are now aligned, and the team has learned to follow them properly," the expert said.

The factory can process about 2,000 liters of milk a day, and with better controls, it expects to utilize this capacity more efficiently. The Swiss guidance has also helped the factory introduce standardized processes that align with international quality expectations. The expert believes these improvements put the dairy in a position to pursue ISO certification in the future, which would further raise product credibility and potentially open doors for export. "Once the parameters are consistently followed, ISO certification becomes achievable and can help the company aim for export markets," the expert added.

For Goras Dairy in Morang, seasonal fluctuations have always affected

production decisions. The dairy processes about 500 liters of milk daily specifically for lassi production. It produces around 700 to 750 liters of sweetened lassi packaged in 200 ml units. This has increased its daily milk collection by 500 liters, bringing the total collection between 7,500-8,000 liters of milk per day

According to Bishnu Bohora, owner of Goras Dairy, the market is currently in the flush season, with milk production running high. To manage the surplus, the factory converts extra milk into powder until the end of the Magh (mid-February).

Demand for their lassi has also surged. "In 2023/24, we sold 20,000 units of lassi. We are now planning to double production," Bohora said.

Sahaj supported the dairy by helping procure a modern lassi-packaging machine, improving product quality, extending shelf life, and boosting production efficiency.

One of the operational changes that has benefited farmers is the shift away from depending on collection centers alone. "We don't wait for farmers to bring milk to us. We go directly to them and pay them," Bohora explained. This direct-purchase model has helped maintain strong ties with 2,000-2,500 farmers across four districts of the province—Sunsari, Morang, Jhapa, and Udayapur.

Now, both farmers and dairy firms in the province are motivated to increase production. However, there are several challenges. For farmers, the major hurdle is the shortage of manpower. For firms, despite the government's ban on importing dairy products from India, illegal inflows of milk and dairy items continue to hinder growth.

"Since production costs in India are lower, these products enter Nepal through illegal channels without quality checks. This has created a major challenge for local firms to compete in the market," said Chimariya.

For farmers like Laxmi, the shortage of labor remains the biggest obstacle. "Even if we offer Rs 20,000-25,000 a month, we can't find workers willing to commit to farm work. If there were no shortage of labor, we would have already expanded," she said.

