



Photo: ITDG

Improving fodder production enhances milk and cheese quality.

Improving dairy products and market links

Sonia Pezo and Daniel Rodríguez

In the upper basin of Llaucano River in Cajamarca, Peru, a community of some 7000 farmers depend primarily on rearing livestock. Animal husbandry is supplemented by a number of other agricultural and forestry activities. The sale of dairy products is the main source of income and employment – it is the first link in a marketing chain that reaches all the way up to departmental and national level.

The department of Cajamarca is one of the main milk-producing areas in Peru. Larger dairy farmers – about 30% of the farmers – sell their milk to big companies like Nestlé (formerly INCALAC) and the Peruvian Leche Gloria. Farmers who are not able to supply the minimum quantity of milk required by these big companies (15 litres per day) or who are not on the milk collection route, usually process their milk into *quesillo*, a fresh curd cheese. There are also small rural companies that collect milk of small-scale farmers and either sell the milk or make cheese themselves, depending on the seasonal price fluctuations of *quesillo*.

In general, families that produce *quesillo* are relatively poor. They produce cheese in an artisan way and with very low levels of technology and hygiene. Their cheese forms the basis for the creamy “Cajamarca” cheese that is produced by small and medium-sized companies in the city of Cajamarca and sold in major coastal cities such as Lima, Trujillo and Chiclayo.

The *quesillo* producers constitute the weakest link in this production chain. They receive a very low price for their product, partly because of its low quality, but also because of the fact that they have to sell to intermediaries in their region.

A proposal for change

Based on studies carried out with CIRAD (*Centre de Coopération Internationale en Recherche Agronomique pour le Développement*, France) and participatory research, ITDG Latin America designed a proposal in 2002 for integrated development of the area, to be carried out with the support of the European Community and the Fondoempleo Programme of the Peruvian government. Part of this proposal focused on producers of dairy products.

The initial proposal was thought through and discussed with the producers of *quesillo* in the area. The proposal suggested that specially trained farmer extensionists would offer training as well as technical and commercial assistance to a group of *quesillo* makers living near the extensionists’ farm. This would help to ensure both a better quality product and a fairer system of commercialization.

Another objective of the project was to contribute to the development of social capital by enhancing mutual confidence among the farmers and increasing their capacity to work together, through the system of extensionists and farmer groups.

ITDG trained the farmer extensionists on improving milk quality, production of improved *quesillo* and other dairy products, business management, organization and leadership, and on basic equipment for quality control of dairy products. The extensionists were also equipped with materials to carry out training and technical assistance.

After their own training, the farmer extensionists offered training to neighbouring farmers on four main subjects: hygienic milking, prevention of mastitis, milk quality, and the production of better quality *quesillo*, in order to improve the farmer's cheese production. In practice, however, things worked out differently. The small-scale producers preferred to sell their milk to the farmer extensionist rather than making *quesillo* themselves, the reason being that although higher quality *quesillo* fetches a better price, production costs also increase. Selling good quality milk directly to the farmer extensionist means that the farmers receive a decent price and get the serum (whey) back, which can be used as food for pigs and dogs. The farmer extensionist in turn is able to obtain good quality milk and make good quality cheese, as a result of the training provided.

Thus, the initial proposal of improving farmer's cheese production on an individual basis changed into a system where a group of farmers deliver good quality milk to their farmer extensionist. The extensionist, in turn, provides training and technical assistance to the farmers, and prepares *quesillo* for sale. This could be seen as a step backward for the farmers, but in fact it is a step forward. The farmers now receive a better price for their milk and have the guarantee of a more stable income.

Farmer extensionists

The selection of good farmer extensionists was a critical aspect of the project. Clear selection criteria were established on the basis of ITDG's previous experience with training farmer extensionists. In the case of Cajamarca, two criteria were

essential: knowledge of and experience in the production of *quesillo*; and experience with commercialization. Based on these criteria, the extensionists were selected by their own communities so that they would be widely recognized and accepted. The extensionists for milk and cheese production have set up a formal association called ANDELAC.

It is important to mention that as part of the broader programme for integrated development of the area, ITDG also trained agricultural extensionists specialized in pasture management and the supply of seeds, as well as livestock extensionists who provide cattle feed and animal health services. There is a shortage of grass seed and limited access to animal health services in the area, and these problems had to be addressed in order to develop the whole livestock sector. These farmer extensionists have also set up formal associations.

The linkages and exchange of knowledge between these associations of extensionists is strengthened through quarterly meetings. In these meetings, workshops on self-evaluation, motivation and exchange of experiences are carried out. At present there are 60 extensionists, organized in three associations.

Given the fact that state extension systems are being trimmed down, one of the great challenges of rural development projects is to be able to offer long-term technical assistance and training. The system of farmer extensionists is a good alternative, provided the extensionists can meet the needs of small producers and charge a fee for their services to ensure the quality and sustainability of the system. Extensionists live in the localities, know the area and are always close to where they are needed. Small producers pay for their services and the costs are within their means.

Organizations at regional level with knowledge in subjects related to agriculture and livestock provide technical input to the



Photo: ITDG

Better hygiene and milk quality are important for improving *quesillo* production.

training programme. For example, the *Servicio Nacional de Sanidad Agraria* (SENASA) supports training in the subject of animal health. This gives the extensionists a greater recognition with their clients.

Results

Improved income

The estimated additional monthly income of agricultural extensionists averages US\$100, whereas livestock extensionists earn an estimated US\$60 extra per month. The producers of *quesillo* that decided to become milk suppliers have improved their income by overcoming the losses suffered in the process of small-scale *quesillo* production due to the poor quality of the product and the necessity of selling to middlemen. It is worth mentioning that the extensionists obtain income from other sources as well, because they have not stopped carrying out their own regular economic activities.

More employment

In the local small-scale milk processing plants the number of permanent labourers has increased from 1 to 2 persons. In addition, the plants employ 1 or 2 extra staff when the milk supply is high.

Increased attention to improving milk production

Milk suppliers now make use of improved grass and improved irrigation practices, and actively participate in organizations.

Better negotiation capacity

Business negotiations have started taking place at different levels, as a result of the training in business management. Visits to the most important businessmen of the sector to the extensionists also helped to establish contacts. The farmer extensionists are now doing business with an increasing number of clients.

Social capital

The project is obtaining important results in promoting social capital in its intervention areas. Through the organization of the extensionists and the respective farmer groups that form part of the milk chain, commercialization is jointly carried out, with a smaller degree of intermediation. The negotiation capacity has significantly increased, which has important economic consequences for the milk producing families and the producers of *quesillo*.

At a higher level, ANDELAC has begun to participate in a co-ordination platform at departmental level on the specific subject of the milk chain. For the first time in the region, small, organized producers are making their voice heard to the different participating actors in the milk chain. Public sector organizations like SENASA, the Ministry of Agriculture and municipal authorities participate in this platform. The private sector is represented by the organizations of cheese producers of the city of Cajamarca, quality control laboratories, and several NGOs working in the region also participate.

Some lessons from the experience

Although it is still early to draw conclusions and lessons from the experience, we think it is important to share some of our

This fresh *quesillo* is the basis for making the popular creamy "Cajamarca" cheese, sold nationwide.

reflections with technicians and institutions that have similar objectives: to support the sustainable development of small producers.

The first observation is that production-oriented projects must be adapted to the reality and real needs of small-scale producers, taking into account the characteristics of present and potential market demands. In this way, the small-scale producers will quickly opt for competitive strategies that are economically beneficial to them.

A process of participation is very important in this type of projects, where the main actors are the local producers. Their capacity is strengthened through an integrated training programme that takes into account the different steps in the productive chain.

The sustainability of the rural extension services is a key factor for the future of the rural communities. Sustainability in this case is directly related to the additional income that these services generate for the farmer extensionists. Linking these services with research and development organizations in the public and private sectors is also very important.

The weak economic position of small rural companies limits the practical application of the knowledge obtained from training and technical assistance. For this reason, an injection of capital is required to allow an increase in production and the application of improved manufacturing practices.

The work on commercialization with small-scale rural producers requires a process of building social capital at the level of associations. This requires close guidance in order to build trust and improve the negotiation capacity and the organization of the people involved.

Sonia Pezo and Daniel Rodríguez. ITDG - Regional Office for Latin America. Apartado Postal 18-0620, Lima 18, Peru. Email: spezo@itdg.org.pe; danielr@itdg.org.pe; website: www.itdg.org.pe

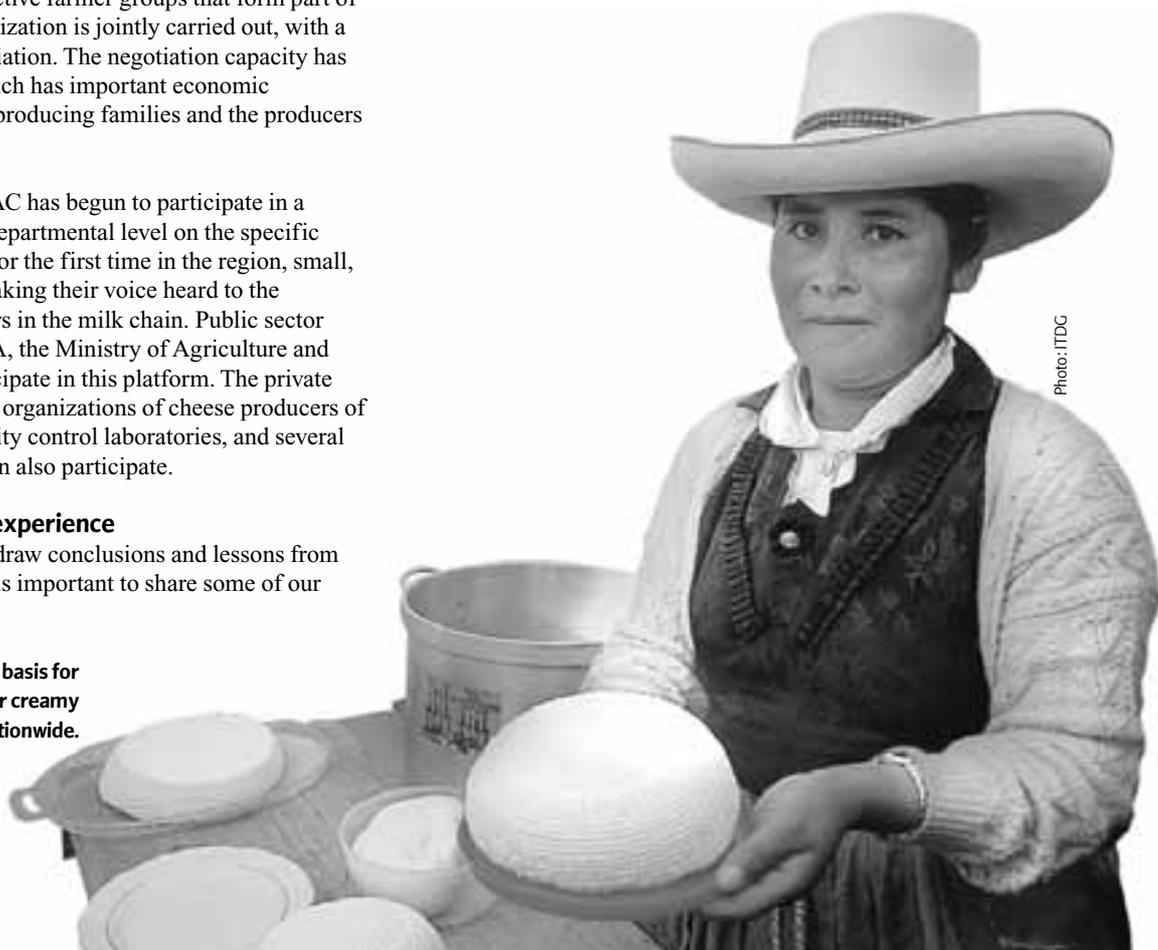


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