

## Niger: Success Stories

### Applied business model for animal feed generates revenue and improves livelihoods of smallholder farmers in Niger



*Various project team members interacting with feed traders in Torodi, Niger (Photo credit: Dr. A Whitbread, ICRISAT)*

A new business supplying animal feeds to rural Niger is helping to overcome vast distances and other hurdles that constrain the productivity and incomes of goat and sheep farmers.

Though 90 percent of the rural population in Niger owns livestock, the income generated and impacts on nutrition and livelihoods remains very low. Smallholder farmers, especially women, own an average of two small ruminants in many rural parts of Niger. The main constraint to expansion is the availability of feed (cowpeas, groundnuts, and cereal bran), particularly during the dry season. Relying on crop residues, which barely meet their needs, animals are scarcely ever well fed therefore, mortality rates are as high as 30 percent, and animals are sold at low market prices. Incomes generated from livestock rarely cover the cost of investments, and farmers remain in a vicious cycle of poverty and food insecurity.

To overcome the root problem of feed shortages, new connections were fostered through a project funded by the Feed the Future Innovation Lab for Livestock Systems and directed by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). The initiative, called Feed for small ruminants, implemented a marketing business model to connect feed producers near the city of Maradi with isolated farmers from the villages of Torodi, about 370 miles (600 km) apart.

Assisted by the project, farmers from three villages in Torodi (Sirimbana, Dioga, Ticko and Patti) and feed actors in two villages in Maradi (Banbon Kori and Karazome) created business relationships focused on supplying feed such that two feed traders from Maradi would collect, transport and sell animal feed in Torodi.

## Banking the Feed

The farmers of Torodi created a feed bank to store the purchased feed on the site of a previous feed bank. Such feed banks are established, managed and owned by the community so the project assisted the community to set up a small committee to manage the revival of the new feed bank on the old site.

The feed traders from Maradi were happily surprised to note how quickly this small market grew. One of the traders, Mr. Habibou, testified: “I used to spend weeks in Niamey searching for feed markets where I could get good returns. But now I come to Torodi, and in one day I have sold all my feed. I never knew that Torodi presented such a huge opportunity for feed markets.”

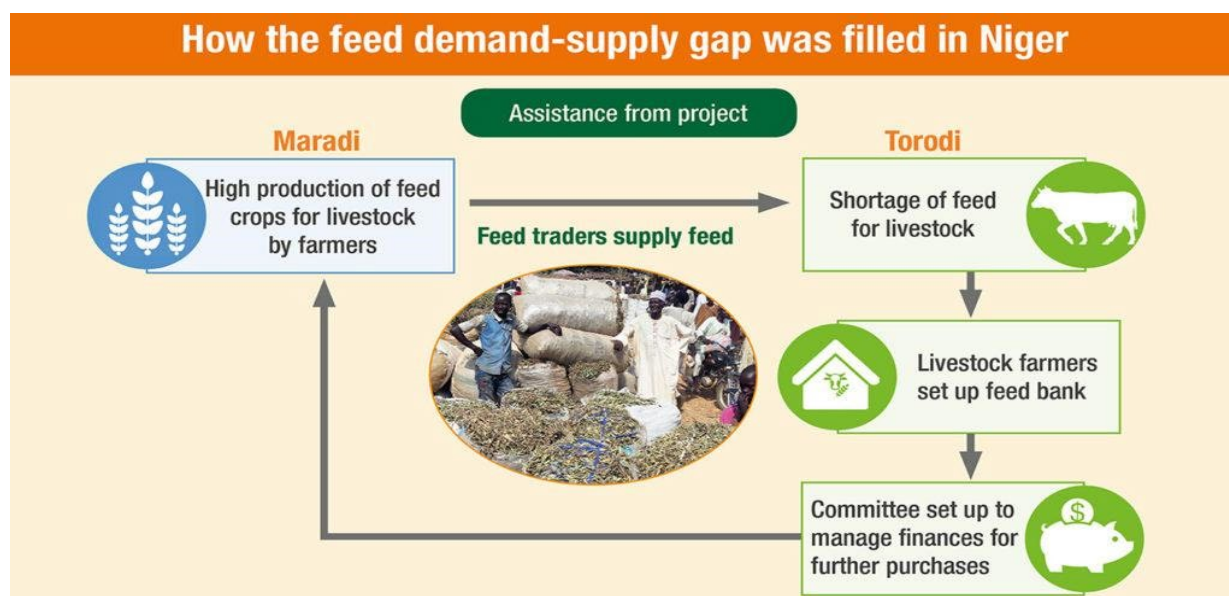
Many traders compete in the large markets of Niamey, but lesser competition in Torodi combined with high demand for feed means that these traders are saving money and time. The distance to transport the feeds is shorter, and the time to sell their merchandise has been reduced from weeks to one day.

Nearly 300 male and female livestock farmers from the Torodi area are buying feed through this newly established mechanism. In addition to the greater availability of feed, Torodi farmers pay prices that are 30 percent lower than those at the markets they used previously. About 12.6 tons of feed valued at \$US 3,600 has been sold through the Torodi market in less than 6 months.

More and cheaper available feed will allow livestock keepers, particularly women, to fatten more sheep and goats and earn more income.

“This feed business is an excellent initiative for our community, and now we can buy feed in our village. This contributes significantly to improving the productivity of our animals,” said Mr. Moussa Oumarou, a farmer at Torodi.

The project team and its partners are now working towards improving credit access for the various groups involved. The first plan is to link feed traders with financial institutions to allow them to purchase more feed for re-sale; a second plan is to establish credit groups (village savings groups) in each community that will allow livestock producers to access funds to purchase feeds to fatten animals. “By helping farmers to save money to be able to purchase feed during the dry season feed shortage period, we will increase the demand for feed during that period. This demand will be met by the increased feed supply from the Torodi market ” explained the project principal investigator, Dr. Vincent Bado.



Overview of feed demand and supply in Niger (Credit: ICRISAT Happenings Newsletter, September 27, 2019.  
<https://www.icrisat.org/solving-the-livestock-feed-supply-demand-puzzle-in-niger/>)

## Empowerment Through Fodder: Fostering Economic Opportunities for Women in Niger

The development of agro-pastoral systems in Niger is hindered by the low participation of women and youth in the economic aspects of crop and livestock value chains. For example, while women care for small ruminants, they rarely participate in marketing them. To address this issue, researchers in Niger have prioritized empowering women to participate in livestock management and market activities through capacity-building initiatives and strengthening linkages with other value chain actors. The project helped establish community fodder business models designed to strengthen the value chain and create sustainable incomes for women in rural areas.

### The approach

Access to quality feed year-round can be a challenge for smallholder livestock keepers. However, significant progress has been made in improving fodder availability by promoting dual-purpose crops yielding more grain and biomass than traditional varieties and introducing tropical forage crops. For example, smallholder farmers have learned how pigeon pea (*Cajanus cajan*), a crop known for its drought tolerance, can be used as a valuable fodder source when irrigated during the dry season. In FY2024, the project engaged 382 farmers (including 95 women) in integrated pearl millet and pigeon pea/ cowpea (*Vigna unguiculata*) systems to boost fodder production and resilience to climate variability. So far, two groups of women with 46 members in total are involved in on-farm production of fodder legume crops.



Women group in Karazomé. Photo credit: Ibrahima

By encouraging farmers to use high-yield crop varieties they will have more biomass to feed their animals, store reserves for the drier months, and increase their income by engaging in fodder sales.

### What is also working

The project also facilitated a partnership between farmers' cooperatives and a private feed company, Entreprise SALMA. The company was interested in purchasing crop residues but struggled to find sellers. With this knowledge, the project team organized a training workshop to enhance the business management skills of selected cooperative members (more than half of the 24 participants were women). Saratou Abdou, the treasurer of a women's cooperative in Maradi, explained "In October 2023, we started going around the village to purchase fodder and store it in bags before processing. We were fortunate that some of our neighbors offered to sell their forage/ crop residues to us on credit, allowing us to build a large stock". As an immediate result of the training, two cooperatives in Maradi collaborated with Entreprise SALMA to collect, process, and pack 490 bags of cowpea hay, 480 bags of groundnut haulms, and 200 bags of cowpea husks into 100-kilogram bags, worth approximately \$5,000 in total. Hindatou Ibrahim, the president of the "Tatolin Ciyawa Dobobi de Twarin Barewa" cooperative, said, "As rural women, we have generated a significant amount of income, which we will use to support each other and improve our families' well-being." Additionally, thanks to the existing relationship with Entreprise SALMA, the project improved access to feed for livestock farmers in the Torodi and Ballayara districts. A women's group in Torodi and participants of the agro-pastoral field school in Ballayara championed this deal through which livestock farmers purchased around 160 bags of concentrate feeds, valued at approximately \$2,000.

The use of concentrates helped boost their sheep and goat fattening activities, resulting in well-fed animals that achieved higher prices at the market.

### What have we learned?

Smallholders, including women, will engage in new activities and adopt technologies when they learn about the potential monetary incentive linked to it. Empowering women in these communities to engage in livestock



management and sales gives them access to cash income. The farming community gained access to quality animal feed resulting in higher animal productivity and higher household incomes.

## Tabaski: a huge market opportunity for small ruminants in Niger

Tabaski (or Aïd el-Kebir), called the "Festival of the Sacrifice," is an Islamic holiday celebrated worldwide each year. It honors the willingness of Ibrahim (Abraham) to sacrifice his son as an act of obedience to God's command. In commemoration of this historical event, a sheep is sacrificed. In Niger, where 95 percent of the population are Muslims, there is a huge demand for sheep at this time of year, offering a huge market opportunity for farmers.

Stakeholders across the value chain identified this period as a peak market opportunity during an Innovation Platform meeting in Niger organized by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) as part of the activities of the Feed the Future Innovation Lab for Livestock Systems. To help farmers benefit from this market, the ICRISAT research project backstpped farmers with technical assistance to produce and purchase feeds in order to present good quality animals in time for Tabaski.



*A marketplace in Niger for the trade of sheep and other livestock. (credit: C. Umutoni)*

Through meetings and local recruitment, 191 farmers who own 400 small ruminants (mainly sheep) volunteered to participate. The project trained this group of farmers on fattening and animal health interventions (feeding techniques, vaccination and administration of dewormers and vitamins).

A feed bank was established and managed by farmers to ensure the availability of feed throughout the period leading up to Tabaski. Many farmers joined meetings, called "The evening of livestock producers," where they shared their experiences.

"We meet every Thursday to discuss our issues in livestock production and together find solutions," said Mrs. Hamsatou, one of the farmers. "We visit each other, observe how everyone raises their animals, and now I realize what I was doing was wrong. When I have a concern, I share it with my co-farmers, and they give me their perspective. Since I joined the program, I have been getting better at managing my sheep. The project has helped us to produce marketable and higher value animals," said Mrs. Hamsatou.

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At the end of the fattening period, five to ten days before Tabaski, the project team investigated potential buyers (mainly from Niamey, the closest big city) and linked them to village-based producers. Many farmers were rewarded with good prices at their village, which further saved the usual costs of transport.

Mrs. Hamsatou commented on this novel experience:

Normally, my husband brings my animals to the market, and he barely gives me my money. Even when he does, he gives me little money, like \$US15, because I did not know the price of sheep at the market. Now I am the one who sells my animals. Tabaski is really a market opportunity for livestock farmers. I sold two sheep: one at \$US200 and the other at \$US120, this will provide important income that will cover a lot of expenses for my family.

The next Tabaski will take place near the end of July 2021. The farmers who have had recent success selling their sheep will be well prepared to increase their income further next year.