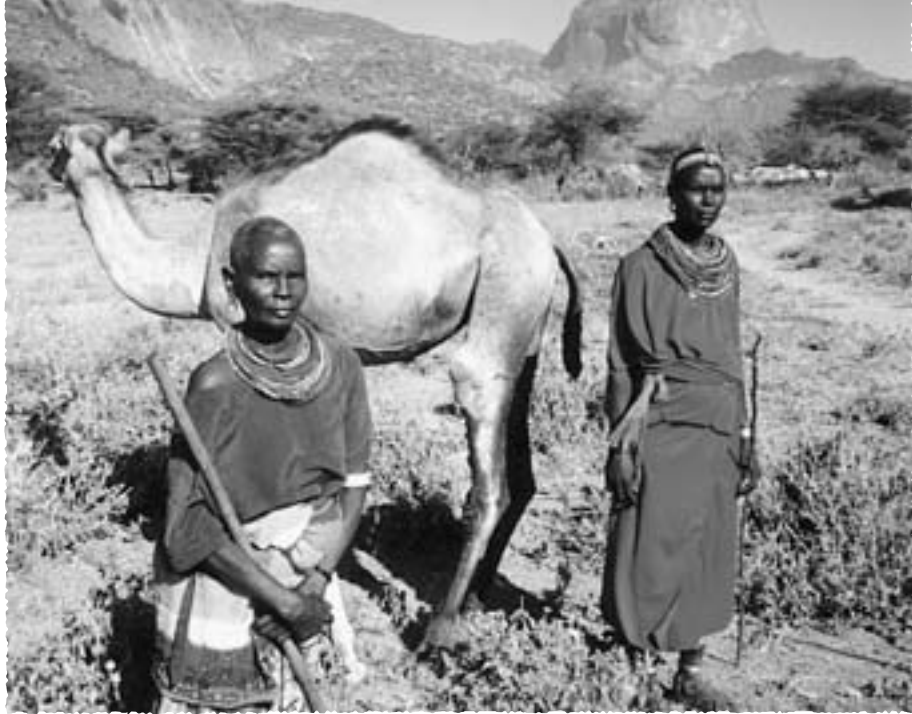


Adiya Leruso (right) passing on her camel's first calf to group member Melieyou Lepasore. Salato group members receive benefits enabling them in turn to benefit others. Photo: Laura Lemunyete



Developing camel products

pastoralist women and PTD

Laura Lemunyete

Salato Juu and Salato Chini Women's Groups are sister groups operating in the Ngurunit area of Northern Kenya. The community of Ngurunit comprises Rendille and Samburu Pastoralists. Ngurunit's main economy is based on livestock production under the pastoralist system. Agriculture is very basic due to water constraints and very few alternative activities have been developed in the area.

Salato Juu/Chini Women's Groups consist of 104 members who formed together as sister groups in October 1995. Their main goal is to work together for the improvement of each member's life together with their families and wider community. Over the years Salato Women's Groups have been involved in a number of activities. These activities include making and selling handicrafts, running a tourist camp/conference centre, participating in making a calendar to raise funds for community preventive health projects as well as other activities that assist them to reach their goal.

Salato Groups' principle partner is PEAR Group (Participatory Education, Awareness and Resources Group), a Community Based Organisation operating in Samburu District. This organisation specialises in promoting, motivating and assisting in the implementation of community development projects.

The camel project

The main incentive for forming into groups was to increase food self-reliance through the implementation of a camel project. The groups started submitting proposals in 1996 and were successful in finding a donor through HPI (Heifer Project International). Activities started officially in January 1999. The project involves every group member acquiring a milking camel, as an ecologically sound livestock species suited to the Ngurunit area that is able to produce milk even during dry seasons. This aims at increasing each household's food self-reliance and possibility of income generation through the sale of camel products. Connected with this project are elements of livestock management training, encouraging ethno-veterinary knowledge through use of medicinal herbs and plants, group dynamics and leadership training, literacy promotion and environmental awareness raising and conservation. PEAR

Group assists in the implementation and management of the camel project activities.

Through the camel project, the women of Salato Women's Groups received 103 mature female camels and 4 breeding bulls. The first lot was received in March 1999 and the last arrived in April 2000. By the end of that year, the camels were starting to give birth and many families started benefiting from the milk. Family nutrition improved and milk sale gave a bit of income. The group members were also seeking better ways to use the milk, both collectively and individually, as a source of income and increased food security. It was through this desire to increase the value of their product that they became involved in Participatory Technology Development (PTD) research on meat and milk preservation for food security and income generation. This PTD research is done at community level in co-operation with EU/ KARI (Kenya Agriculture Research Institute), and PEAR Group is involved in the project as facilitator.

The meat and milk preservation project is based on available academic research on this subject and, through the support of technical personnel and community facilitators, attempts to establish practical methods that local pastoralists can use for food security and income generating activities. Salato Groups were selected for the pilot phase of the project from February to June 2001. During this time they were able to start organising several preserved meat and milk product enterprises and start to explore the possible avenues of food security products such as camel milk cheese, dried milk and ghee (clarified butter).

From July 2001, the project continued in a more formal phase concentrating on infrastructure development (dairy and meat processing houses), marketing and continued product development for food security. More emphasis was also put on the health of the milking animal as it relates to milk production and dairy product quality. A dairy building was completed in April 2002 and a meat-processing house was finished in May 2002. KARI provided technical experts to work on the food security and health issues. Donors from the Finnish Embassy assisted the Salato Groups to equip the dairy with a solar system, a bag sealer and a cream separator. A refrigerator was also given that only needed some maintenance and repair. The

Group members, facilitated by PEAR Group, continued to adapt the technical processes and income generation products to their situation.

The project was renewed again for the year 2002/2003. The goal of this year is to establish regular markets for both milk and meat products, finish supporting infrastructure like fencing, water tanks and latrines, improve literacy and management ability of the group members, explore ways of adding value to animal products like the hide and to enhance the sustainability of the project to allow it to continue without external input.

Successes in the meat/milk preservation project

Through their involvement with the Meat / Milk Preservation Project, the members of Salato Groups have begun to see several positive changes start to take place in their abilities as members of a group, and as individuals, to improve their food security on a household basis and increase their income generation.

Through the group dairy enterprise, a market has been created for individual milk sales. After processing the milk, the profits from the sale of the products, fermented milk, ghee, milk sweets and dried cheese, in turn are put into the group account and are available for grants and loans to the members for starting private business enterprises or assisting in educating their children.

The Participatory Technology Development side of the project has been successful in developing several important food security items that the group members are producing for household level use. The traditional method of extracting milk fat from cow milk does not work on camels because of the structure of camel milk. With the cream separator technology introduced, the production of ghee (clarified butter), which by the local methods for cow milk is very labour intensive, is made much easier and can be made without destroying the skim milk component. From the skim milk a dried, brined camel cheese or a processed milk sweet can be made. The cheese is easily stored for up to 6 or 8 months without spoiling and is added to maize meal porridge or maize as a very nutritious protein source. The milk sweet can be stored for up to 4 months and is added to tea or eaten alone. These products are made during the times of milk surplus and can be easily stored in local home conditions. These technologies go very far in providing alternative systems of food security by preserving a normally very perishable product.

Besides using it for their own income generation activities, the group dairy is also devising a way to provide this separation technology to the wider community during times of milk surplus, so that the fat can be stored for the dry season. So now, families that have camels as their source of milk can also benefit from making ghee.

One added benefit that the group members are realising from this project is through the creation of a fund from part of the income, to provide subsidised camel drugs for the group members when their camels require them. A major expense of owning camels is the high cost of drugs required to keep the camels healthy and productive. Many of the group members have very little cash income and find providing drugs for their camels a major constraint to their production. With the advent of the dairy project, the group members were able to set in place a system of milk donations on a weekly basis when their camels are lactating. The milk is then processed to improve the value and sold along with the other income generation products. The money from the camel milk sales is then put into the drug fund and used to buy drugs for the group camels. These drugs are provided to the members very cheaply, (less than 25 % of retail price), thereby assisting the group members to keep their camels healthy and increasing overall production.

Challenges for the Future

In terms of the meat side of the project, traditional methods of preserving the meat have been improved to create products that can be marketed for income generation. Tanning of the hides is also being explored so that a value-added product can be sold for more money than the raw skin can get. Some success has been achieved, but the PTD process is still going on to develop marketable products.

Marketing in general, of both the milk and meat products, is an ongoing challenge for the Group and the organisations working with them. While several markets have been established and several potential markets are in the process of being opened up, the women are still eagerly working on better, more marketable products that will enhance even further their income generation opportunities.



**Group members at the dairy separating cream from camel milk.
Photo: Laura Lemunyete**

In terms of food security, the Salato Group members continue to raise awareness on the products that they have developed in the context of the project. While some of the group members have started to adopt the products on a household level, there is still a lot of work ahead for the group to spread the technologies to the wider community and other neighbouring communities. This challenge they are taking on with much enthusiasm and energy.

While the PTD methods have already resulted in several good products, the Salato Group members have learned that technology development is an ongoing process and they continue to seek new and better ways of preserving their meat and milk products. They have seen the positive outcomes of the project in increased income and other benefits like the camel drug fund and increased food security. This gives them the heart to continue in their search for ways to improve the lives of their families, their fellow group members and their community. ■

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