



A cooperative of women in northern Mozambique promotes nutritious soy-based food products in local community

**Zambézia province, Mozambique
December 2018**

Although soybean is an increasingly popular crop in Mozambique, until recently it has been used primarily as poultry feed or soy oil, and not for human consumption. However, soybeans can be used for a number of food products, such as soy chunks, soy milk, and soy bread. According to FAO, soy-based food products are considered to be “nutritious and healthy based on their nutrient composition which includes protein, fat, carbohydrates, dietary fibers as well as minerals and phytoestrogens (or isoflavones).”¹

As an extremely good source of protein that is cheaper than other options such as meat, which is not affordable in many rural areas, soy-based foods have the potential to impact nutrition in a country like Mozambique where malnutrition levels are high. However, few households in Alta Zambézia in northern Mozambique, a large soybean producing region, ate soy-based foods, until recently.

Recognizing this opportunity from years of working to develop the soybean value chain, TechnoServe has been working with a cooperative of women since 2016, helping them to expand and develop their soybean by-product sales into a more viable business. AGRA and IDCR provided approximately USD \$600,000 to TechnoServe for the project entitled “Research on Post-Harvest Losses in the Soybean Value Chain.”

¹ P. Thoenes. FAO, *The Role of Soybean in Fighting World Hunger 2014*

The headquarters of the cooperative is in Ruace, a small town in Alta Zambézia, in an old colonial house with an overgrown garden and rooms long abandoned to the elements. Several mornings a week, a handful of women arrive to fill the narrow kitchen with a flurry of joyful productivity. The women come together to cook and sell soybean products, and, in so doing, they are gradually transforming the eating habits of their community.

“The cooperative is called Nossara”, explains its manager, Teresa Salada Agosto. “It means women with vision, women full of ideas, women full of work.”

Nossara’s members bake their sweet soy rolls and soy cakes in a hand-built oven in the front yard, but their most lucrative product is soy milk, painstakingly cooked over an open fire.

“We measure the flour and put it in the warm water, and we take the cloth and strain it. Then we cook it, moving the pan so it doesn’t burn. We let it boil for 20 to 30 minutes, then take it out and serve it”, Teresa demonstrates. “It’s very good, even without sugar. It’s very nutritious too.”



No one in this area actually ate soy-based food, says Teresa, until Nossara began preparing their own. She admits that at first, soy milk is not always an easy sell. “Sometimes soy has a slight odor, and it might not please you on the first day.” But even if a customer does not like it the first time, Teresa grins, “he will come back.” Soy milk is thicker than cow’s milk, she explains, and more filling. “After you drink soy milk, you do not have to eat anything else.”

When Nossara first began cooking together several years ago, they passed out free samples



and talked to community members in Ruace about the health benefits of soy. They focused their efforts on pregnant women and children, although others soon began asking for soy milk as well. “It’s a very energy-rich milk”, says Teresa. “It’s good for the whole family.”

Living and working in an area that suffers from high rates of malnutrition, the women hope to see improvements in the overall health of their customers.

“We chose to make soy products because they are good for you, and the community also grows a lot of soybeans. So if we are preparing soy, it fits into our culture”, explains Teresa, adding that the women of Nossara all grow soy themselves.

As a small group with few resources at their disposal, Nossara struggled with the daily challenges of running a food business. All their cooking and baking was done by hand, which slowed down the production process. Previously they did not have many materials or equipment, such as a



mill to process the soybean flour, or even more basic needs such as electricity. Perhaps the biggest hurdle Nossara faced was the size of the market in Ruace, a small farming town in a sparsely populated area. To be profitable enough to survive, Nossara needed to expand their reach.

“The vision is for us to grow, to expand in other communities and districts, even in the provinces”, Teresa says. But without their own vehicle, paying for transport to other markets from Ruace where they are based was too expensive to make such expeditions viable.

TechnoServe began working with Nossara assisting the cooperative to recruit new members in nearby towns as a way to expand the business. Previously Nossara was a cooperative of only 5 women in Ruace. Today there are more than 20 members and they have expanded to three new communities: Magige, Lioma and Gurùé. The members must pay a small fee to join, but then receive knowledge and support on how to make the various soy-based foods, which they will then introduce to their neighbors in order to develop the market throughout the region.



TechnoServe also trained the members not only on ways to cook soybean products, but also on various business management principles. With funds from AGRA and IDRC, TechnoServe helped Nossara access necessary materials and equipment so they can operate their business more effectively. The headquarters in Ruace now has electricity and a mill that will allow them to provide the necessary soy flour to the members of the other communities. Technoserve also built traditional ovens and provided equipment for the production and sale of soy products to members in the new communities, thus laying the groundwork for Nossara’s expansion into new markets.

A vibrant market for soy-based foods in northern Mozambique would benefit members of the

cooperative, but it would also boost nutrition levels within the community while increasing demand for locally-grown soybeans. In light of this, TechnoServe conducted a study of the market for soybean products in the area, with the intention of helping Nossara and its new members to understand where there is demand and for which products.

Teresa believes that the demand for soybean products has grown considerably. These days the group sells their products at Ruace's weekly market and at the local hospital. Eager children turn up outside their kitchen after school looking to buy soy cakes. Demand is so high, says Teresa, that they are not always able to produce enough to satisfy everyone.

Teresa is hopeful for Nossara's future. "The soy product market can be profitable", Teresa insists, referring to the satisfied customers she meets every day in Ruace. "Sales are increasing a little more each month, every year. We are growing."

In addition to their soy product sales, Nossara has been piloting a small initiative, offering literacy classes for women in the community. So far, there has been one 3-month course completed, taught by Eugenia Mertone, the president of Nossara, (who was trained by TechnoServe to become qualified to teach these classes) and attended by over 30 women. In addition to learning basic literacy, the women also have the opportunity to discuss important issues around gender roles in their community. In this way, Nossara is gradually becoming an example of leadership and focal point for women in the area.



Nossara's soy-based food products

- Soy milk
- Soy cakes
- Soy bread
- Sweet soy rolls
- Soybean bajias (fried dough patties)

Each of these recipes uses soybean flour as its main source of soybean protein, followed by other ingredients.



THIS WORK WAS CARRIED OUT WITH THE AID OF A GRANT FROM INTERNATIONAL DEVELOPMENT CENTRE, OTTAWA, CANADA. THE VIEWS EXPRESSED HEREIN DO NOT NECESSARILY REPRESENT THOSE OF IDRC OR ITS BOARD OF GOVERNORS.