

Improving Shea Butter Production in Burkina Faso



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[Photo: In Burkina Faso, more than 800 women are involved in shea nut processing.]

Burkina Faso is the world's second largest producer of karité or shea nuts. Depending on rainfall and other factors, the small West African country produces from 40,000 to 80,000 tonnes of shea nuts per year. Valued for their high fat content, shea nuts are processed to make shea butter, which is used locally for cooking, as medicines, and for cosmetic purposes. It is also of increasing interest to Western countries as a skin care ingredient.

Traditionally, the preparation of shea butter has been a women's activity. Until recently, this wearisome work was performed manually or with hydraulic presses (made from imported truck jacks), which are not well suited to the task and break down frequently. But with funding from the International Development Research Centre (IDRC), researchers in Burkina Faso and Canada have found a way to lighten the women's work and raise their productivity.

Origins

The project began in 1989 when [Rigobert Yaméogo](#), a chemist at the Institut de recherche en sciences appliquées et technologiques (IRSAT), approached IDRC for funding to help him improve the working conditions of shea butter producers. The Centre approved an initial pilot project followed by a CA\$400,000 initiative to develop a technological solution. In partnership with researchers at the [Centre de recherche industrielle du Québec \(CRIQ\)](#), Dr Yaméogo built a manual horizontal screw press that could extract shea butter from the nuts. Today, these presses, which cost about CA\$2,000, are used by groups of women producers who take out loans to purchase them.

This press makes it possible to process up to 30 kilograms of shea nuts per hour, compared to just 50 kilograms in three days without using the press, says Dr Yaméogo. The women place shea nuts in a container, and its top is pressed by a huge screw. A large wheel — set in motion by the women — turns the screw, crushing the nuts in the process.

Widespread acceptance

This work is almost effortless. A pressure of 20 kilograms on the driving bar that activates the wheel is enough to create a force of 40 tonnes at the end of the piston, he says. From 1992 to 1995, the ease of use and output of this press were tested by local women. The women were delighted. By the end of 1995, 40 presses had been delivered to shea butter producers. There are now about 100 in operation, which are used by most of the 800 women in Burkina Faso who process shea nuts in organized groups.

Shea butter has many uses. Locally it is used to treat dry skin, to remove skin blemishes, to take care of babies' skins or to prevent hair loss. In Burkina Faso, women also use it for cooking, especially in rural areas, says Dr Yaméogo.

Export markets

Elsewhere, a decision by the European Union to authorize the use of vegetable fat, including shea butter, in the manufacture of chocolate is expanding the market. Other shea butter importers such as Switzerland, Japan, the United States, and Canada mainly use it in the preparation of cosmetics.

As production expands, Burkina Faso's women producers are demanding a more efficient press. Dr Yaméogo is developing a prototype power-driven press that can be adapted from the manual presses. This prototype makes it possible to process two tonnes of shea butter nuts daily. The short-term objective is to motorize all of the presses used by the groups of women who are producing quantities for export, he says.

Future goals

In 1998, IDRC approved a third project on shea butter. We have to rid the butter of its bitter odour so that it can be a high-quality cosmetic and food item produced not only for export but also for local consumption, says [Bakari Kassamba](#), a colleague of Dr Yaméogo. In particular, the Burkina Faso government is trying to encourage citizens to adopt shea butter in their diet as a substitute for palm oil and other oils, which are currently imported from Ghana, Ivory Coast, and Malaysia. To promote this application, Professor Kassamba is adapting the 'odour eliminator' (a machine used to volatilize odorous substances) and the 'fractionator' (a machine that allows the separation of butter into liquid and solid fractions) to the production process.

By creating jobs and providing women with extra income, the shea butter project is contributing to the growth of the Burkina Faso economy. It also promises to encourage job creation in the handicraft sector because shea butter producers want to develop new packaging based on local fan palm leaves. Moreover, the project has a positive environmental impact — by encouraging people to protect shea butter trees, it provides an incentive to combat desertification.

Hélène Peronny is a Canadian journalist who visited Burkina Faso for l'Agence Periscopop Multimédia on a fellowship funded by IDRC. (Photo: S. Colvey, IDRC)

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If you have any comments about this article, please contact info@idrc.ca.

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