

PROMOTING LOCALLY FORTIFIED SUNFLOWER OIL IN TANZANIA

LOCAL BUSINESS SOLUTIONS ARE COMBATING VITAMIN A DEFICIENCY AND SPURRING ECONOMIC GROWTH IN RURAL AREAS

WHAT CANADIAN-TANZANIAN COLLABORATORS DISCOVERED:

- Producing and selling fortified crude sunflower oil for rural residents is both technically feasible and profitable
- Consumer discounts stimulate demand for fortified oil
- Local producers can reach more vulnerable residents by partnering with local retailers
- Family nutrition improves when cooking with fortified unrefined sunflower oil
- Fortified unrefined sunflower oil can support Tanzania's national food fortification program

BY THE NUMBERS

- 3 small and medium sized millers produced and sold over 142,000L of fortified unrefined sunflower oil, marketed under the brand name MASAVA (Swahili for "natural sunflower oil fortified with vitamin A")
- 319 retailers sold the oil directly to consumers
- Retail sales of MASAVA oil during the project grew from 5-10% of oil sales to 20-50%
- Up to 500,000 rural poor Tanzanians reached with the new fortified oil

THE IMPACT:

Small and medium enterprises (SMEs) have demonstrated – for the first time – that unrefined sunflower oil can be fortified on a small scale and reach the most vulnerable people, particularly lactating mothers and children. More than 142,000L of MASAVA fortified oil was produced by SMEs and sold by a network of 319 retailers reaching nearly half a million people. The project supports Tanzania's national food fortification policy, which is making fortification of edible oil mandatory. The results demonstrate how a locally produced crop, processed at local businesses and sold by local retailers can improve food security and stimulate local economic growth.

THE CHALLENGE:

Malnutrition is a critical development challenge in Tanzania, particularly in Manyara and Shinyanga, regions with some of the highest prevalence of vitamin A deficiency. One-third of rural children and women of reproductive age lack basic micronutrients like vitamin A needed for healthy brains, eyes and immune systems. While refined sunflower oil is being fortified with vitamin A by large-scale producers and sold in large urban centres, prior to the MASAVA project there was no evidence that it was either technically feasible or sustainable to fortify locally produced unrefined oil, and on a smaller scale that can reach the most vulnerable people in rural areas.



Virgin sunflower can be fortified

“They have proven that you can fortify crude sunflower oil. This was one of the breakthroughs in this project, and a critical step towards overcoming Vitamin A deficiency for the most vulnerable in Tanzania.”

Obey N. Assery, Director, Department of Coordination of Government Business, Prime Minister’s Office, The United Republic of Tanzania

The project demonstrated that it is technically feasible for rural SMEs to fortify unrefined sunflower oil in regions where inventory turnover is rapid and long shelf life is not required (up to six months).

Strengthening the business model

Tausi Khalfan initially doubted the business case for selling MASAVA at her shop, located in the Hanang district of the Manyara region. That was until she went from selling 83 cartons of one-litre containers in two months to selling 110 buckets of 20 litre containers within two weeks.

“I have been recruiting retailers and telling them to buy this improved oil. It is local and better for you. The brand recognition has improved over time,” she said.

- The project demonstrated that is vitamin A fortification at the small and medium scale is commercially feasible, assuming the Tanzania Food and Drug Authority (TFDA) adopts flexible regulations for SMEs (e.g., related to Good Manufacturing Practices, packaging and labeling, and the use of lower-cost fortification equipment such as plastic instead of stainless steel mixing tanks).
- e-Voucher consumer discounts provided via cellphones and an eWallet discount managed by the retailer resulted in higher sales (i.e., by incentivizing retailers to promote the product). The e-Wallet design also made it easier for women to benefit from the discounts (i.e., faster transactions, no need to own a mobile phone, literacy less of an issue).
- Selling oil in sealed 1L packages reduced sales and discriminated against the poorest households who purchase oil in small “scoops” of 30-60mL. When retailers began selling scoops from larger 20L containers, sales increased.

Stimulating consumer demand and accessibility

“Selling fortified sunflower oil has boosted my vegetable business and personal development... I did not have any chickens at home but after joining the business of selling fortified sunflower oil from (the) MASAVA project, I have been able to get chickens at my home hence diversifying and getting supplementary food for my family.”

Odilia Barthomew, Retailer, Katesh, Tanzania

- Demonstrated that e-vouchers can stimulate sustained demand and consumption of fortified oil. Oil sales continued when the discount ended, with demand expanding to other regions of Tanzania.
- e-Vouchers worked best when combined with Behaviour Change Communication activities that educate both women and men about the health benefits of vitamin A and fortified oil. As men wield considerable buying power in Tanzanian households, appropriate communications channels were used to reach them (e.g., soccer games, radio).
- Selling smaller volumes of oil (typically purchased by women) and reducing the transaction time for e-Vouchers helped to address gender inequalities in the value chain.

Reducing micronutrient deficiencies

“I was grateful to learn about how important vitamin A is for the mental and physical development of my child. I’m looking forward to using the oil at home.”

Amina Juma, mother who attended a MASAVA early nutrition seminar at the Magugu Health Clinic in Babati Rural District, February 17, 2016

Household survey data demonstrated that fortified oil is strongly associated with the observed reduction in vitamin A deficiency both in lactating mothers and in children under five.

WHAT’S NEXT?

The project, which included consistent engagement with the Prime Minister’s Office and Ministry of Health, concluded that fortification by SMEs was sustainable after initial subsidies ended. It also demonstrated the conditions required for SMEs to be cost-competitive, including: flexible regulatory requirements for SMEs; enforcing regulations that require all producers to fortify; and government promotion of sunflower seed production. Next steps include: validate the lowest-cost fortification equipment; assist SMEs in financing and installing fortification equipment and maximizing operational efficacies; establish commercial source(s) of supply for vitamin A premix; and continue dialogue with TFDA.

LEARN MORE ABOUT THIS PROJECT:

Project abstract: www.idrc.ca/en/project/promoting-locally-fortified-sunflower-oil-using-e-vouchers

Project website: <https://www.meda.org/masava>

Research in Action: <https://www.idrc.ca/en/research-in-action/promoting-locally-fortified-sunflower-oil-e-vouchers>

KEY OUTPUTS

Policy brief: Addressing inequities in access to fortified sunflower oil. (Conference poster)

Journal article: Cost-effectiveness of using sunflower oil fortified with vitamin A (Submitted - 31/12/2017) Susan Horton, Theobald Moshia, Nadira Saleh, Edna Nda and Dylan Walters Sokoine University of Agriculture, University of Toronto, University of Waterloo, Mennonite Economic Development Associates

On gender: Annex 3 Gender tip sheet and stories 2017-11 Horton, Susan; Moshia, Theobald; Saleh, Nadira <http://hdl.handle.net/10625/56753>

Other:

- Huile essentielle : santé visuelle en Tanzanie Québec Science Letarte, Martine http://www.quebecscience.qc.ca/reportage_qs/Une-huile-essentielle <http://hdl.handle.net/10625/55816>
- Masava News January 2017
- Infographic on leveraging private sector to go the last mile to combat vitamin A deficiency
- Video: Masava (Mafuta Asili ya Alizeti yenye Vitamini A / Healthy Sunflower Oil Fortified with Vitamin A) <https://vimeo.com/144065269>

- Country report : promoting locally fortified sunflower oil using e-vouchers in Tanzania Löwe, Alexandra; Hamisi, Mbaraka (2018-07) <https://idl-bnc-idrc.dspacedirect.org/handle/10625/57267>

See more project outputs: <https://idl-bnc-idrc.dspacedirect.org/handle/10625/33/browse?type=project&value=107790>

QUICK FACTS

Project location: Tanzania

Institutions: Mennonite Economic Development Associates (MEDA) (Canada); Sokoine Agricultural University (SUA) (Tanzania)

Project website: www.masava.org

Project duration August 1, 2014—September 30, 2017

Project budget: CA\$ 4,200,208

Total disbursement: CA\$ 3,818,068 (91%)

Project number: 107790

THE CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND IS JOINTLY FUNDED BY GLOBAL AFFAIRS CANADA AND THE INTERNATIONAL DEVELOPMENT RESEARCH CENTRE.