

MULTI-FUNDER INITIATIVE

Cultivate Africa's Future (CultiAF)

Better processing and marketing of healthy fish products in Malawi

In Malawi, fishing is a crucial source of employment and nutrition, yet 40% of fish are lost during processing. The research team will adapt and test solar fish-drying tents to reduce losses and develop new business models for fish processors.

The challenge

In Malawi, fish provide 70% of the animal protein in people's diets: small fish, in particular, are a vital source of calcium, vitamin A, iron, and zinc. Once caught, most fish are sun-dried, smoked, parboiled, or pan roasted. However, peak fish catches in Malawi coincide with seasonal rains and high humidity, which interfere with drying and smoking. Open drying of fish also results in insect infestation, dust accumulation, and contamination by animals. Smoking of fish, done over open fires, leads to high levels of smoke deposit. As a result, over 40% of the fish catch in Malawi is lost during processing, with a major impact on fish consumption in the country. The high losses are also contributing to a decline in the fishing sector, whether as a source of nutrition, income, or employment.

The research

This project will develop and test the use of solar fish-drying tents for three Lake Malawi small fish species – Usipa (*Engraulicypris sardella*), Utaka (*Copadichromis spp.*), and Ndunduma (*Diplotaxodon spp.*). These nutritious species form a large part of the annual fish catch and are widely available to the poor. The research will assess the costs and benefits of using the tents, including their economic performance and their impact on the quality and quantity of fish processed.

To promote adoption of the solar dryers, researchers will work with different actors in the fish value chain to create a sustainable business model. At the community level, low-income men, women, and young people, who have traditionally struggled to access good quality processing facilities, will use the solar dryers. The project will link the fish processors to transporters and distributors, to supply an established supermarket chain, the People's Trading Centre, and other markets. Improving the social and economic conditions of women fish processors will be central.

Expected outcomes

- Adapted solar fish-drying tents for three small fish species
- Understanding the economic potential of solar dryers, particularly for women
- Reduced losses and increased safety in processed fish
- Better market access and improved income for processors and fishers
- Standardized guidelines for fish handling and processing
- An appropriate fish processing business model for women and youth

Implementing partners:

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Other partners:

Department of Fisheries, Malawi and WorldFish.

Countries: Malawi

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Cultivate Africa's Future Fund (CultiAF) supports research to achieve long-term food security in Eastern and Southern Africa. Learn more at www.idrc.ca/cultiaf.



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