

Moving women out of poverty through the development of small fish processing enterprises in Malawi

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Malawi, located in southern Africa, is one of the countries in Africa which is highly dependent on fish as a source of animal protein. Malawi produces about 70,000 tons of fish annually from its lakes, rivers and swamps. The fishing industry supports the livelihoods of 1.5million people in Malawi and contributes about 4% to the national GDP. Due to poor processing and packaging, 30% of fish caught is lost through post-harvest losses. These losses reduce financial returns to actors in the fish value chain.

Past efforts to improve fish processing include introduction of drying racks and concrete slabs, improved smoking kilns and treatment of processed fish with natural insecticides. Most of these introduced technologies failed to reduce post-harvest losses because they failed to meet the needs of fish processors. In particular drying racks could not be used during the rainy season when fish spoilage is highest. These interventions also did not address post-harvest losses in the retailing stages of fish value chain.

Lake Chilwa is one of the lakes which is experiencing high fish post harvest losses in Malawi. A fish value chain and socioeconomic studies conducted in the basin has shown that enhanced participation of women in the lucrative USD17million per year, Lake Chilwa fish industry can increase their incomes and reduce fish post harvest losses.

With funding from the Norwegian Ministry of Foreign Affairs through the Lake Chilwa Climate Change Adaptation Programme, pilot value addition (processing and packaging) and fish marketing activities targeted at women groups were implemented in three Lake Chilwa landing sites. Self selected women groups were formed in 2010 and trained in group dynamics, business management and fish processing. Experts introduced solar dryers and improved smoking kilns to these groups and conducted collaborative activities to demonstrate how adoption of these technologies could increase women incomes through production of high quality fish that could be sold to market outlets country wide at a higher price. Technical studies showed that solar tent dryers reduced fish drying time from 24 to 12 hours and improved fish quality. Similar results were obtained in the smoking kiln studies where improved kilns reduced firewood use by 30% and resulted in a healthier product with less smoke particles.



The shelf life of both products was estimated at 5 months. Based on successful pilot activities, improved processing technologies were scaled out in 2011 through the construction of 8 fish solar dryers and smoking kilns with a combined processing capacity of 800 kg of fresh fish (150kg dry fish) per day. Fish from these facilities is packed in labeled 100g plastic bags and sold in the cities Blantyre, Lilongwe, Zomba at MK3000/kg (USD 10.7/kg) against MK80/kg (USD0.3/kg) similar products produced using traditional methods. It is expected that at full capacity 15 women groups (10 women per group) from the three project sites will be producing 16 tons of processed and packed fish per year valued at USD450, 000. This translates into annual gross revenue of USD3,000 per group member as comparable to annual marketing margins of USD4,100 obtained by male fish processors in the Lake Chilwa basin.

The major challenges encountered during the development phase were: rapid degradation of plastics in solar tents; lack of financial capacity of the women to buy adequate quantities of fish to satisfy demand and poor functioning of groups. These challenges were addressed by replacing plastic roofs with iron sheets, linking women to financial institutions and reconstituting the groups by excluding itinerant fish processors.

The improved smoking facilities have been adopted by the largest fish processors in Malawi who with their national market coverage will make high quality fish more accessible to consumers in Malawi. The Ministry of Gender and Women Affairs have promised to assist the women in accessing financing and the Malawi Department of Nutrition and HIV/AIDS will be assisting the women to produce other value added fish products such fish meal which could be used in school feeding and nutritional programmes at health facilities.

Building good relationships among different stakeholders in the fish value chain was identified as one of the key lessons learnt in this project. This project has built relationships with the private sector (distributors and retailers), policy makers in the Department of Fisheries, Trade, Women and Gender and Nutrition, Malawi Bureau of Standards and local district councils. These good relationships have helped to address various operational and policy constraints that the project faced at community district level and in the fish value chain. The next development steps involve assessment of gross margins and preparation of financial information that will enable women to access financing from the banks where they are operating savings accounts. In addition, the programme is engaging with policymakers to promote nation-wide adoption of the processing technology and to develop more markets for the processed fish products.

