

Value chain analysis of Lake Chilwa fisheries in Malawi

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Abstract

The research will analyze value chain of *Barbus paludinosus* and *Oreochromis shiranus chilwae* from Lake Chilwa in Malawi. It will examine problems of asymmetric bargaining power in fish sales and information flow on the distribution of benefits along the value chain. Specifically, this research will analyze chain governance, its impact to the actors along the value chain, conduct value chain mapping, analyze cost efficiency and assess income distribution and livelihoods. Data collection will be through focus group discussions, interviews and observations.

Key words: *Barbus paludinosus*, cost efficiency, Malawi, *Oreochromis shiranus chilwae*, value chain mapping

Résumé

La recherche analysera la chaîne de valeurs des *Barbus paludinosus* et *Oreochromis shiranus chilwae* du Lac Chilwa au Malawi. Il examinera les problèmes de pouvoir de négociation asymétrique dans des ventes de poissons et d'écoulement de l'information sur la distribution des bénéfices le long de la chaîne de valeurs. Spécifiquement, cette recherche analysera la gouvernance de chaînes, son impact sur les acteurs le long de la chaîne de valeurs, dirigera la cartographie de la chaîne de valeurs, analysera l'efficacité économique et évaluera la répartition du revenu et les gagne-pains. La collecte de données sera faite à partir des groupes de discussion, des entrevues et des observations.

Mots clés: *Barbus paludinosus*, efficacité économique, Malawi, *Oreochromis shiranus chilwae*, cartographie de la chaîne de valeurs

Background

Fish in Malawi generates beach price local revenue of about MK2.6 billion (US\$24 million) annually and contributes about 4 percent to the GDP (Malawi Government, 2007). Fish processing and trading is a major occupation among many fishing communities including women. Most of the fish is sold to distant markets and is mostly in dry form for easy storage (FAO, 2005).

There are a number of fish processing facilities which range from the traditional open pits and drying mats to the introduced facilities such as kilns and wire drying racks (Njaya, 2001). Fishing in Malawi is in three categories, i.e., commercial fishery, semi-commercial fishery and artisanal fishery. Lake Chilwa is one of the lakes in Malawi contributing significantly to Malawi's total fish production. Majority of the fishers in Lake Chilwa are artisanal fishers. The lake is the second largest lake in Malawi and is considered as one of the most productive lakes in Africa (Chiotha, 1996). The lake and its beautiful wetland are 40 km across and 60 km from North to South, giving a total of 2,400 km². In normal years, one third of the lake is open water, one third is swamp and marsh and another third is flood plains (Maloya, 2001).

Literature Summary

Fishing and fish trading play a very important role on the livelihood of the fishing communities around Lake Chilwa. Lake Chilwa catchment area is shared by districts of Zomba, Machinga and Phalombe. About 13 percent of nearly 1.6 million people that are dependent on fishing and fish related businesses for their livelihood from along the lake shores are from Zomba, Phalombe and Machinga districts (FAO, 2005). An estimated annual income of about US\$10 million is realized through fish trade from Lake Chilwa (Maloya, 2001). The lake is a shallow, enclosed endorheic saline lake. It is surrounded by an area of dense typha swamps and marshes (<http://www.wetlands.org/reports/ris/1MW001en.pdf>). The contribution of Lake Chilwa fishery to the Malawi's total fish production ranges between 16 percent and 43 percent with an average of 22 percent (Zwietaen and Njaya, 2003). The average annual fish production has been around 13,000 tonnes (Njaya, 2001). The three most important fish species of Lake Chilwa are *Oreochromis shiranus chilwae* (makumba), *Clarias gariepinus* (Mlamba) and *Burbus paludinosus* (Matemba). In 2003, *Oreochromis species* contributed 34 percent of the total catches, *Burbus species* 52 percent and *Clarias species* 13 percent (FAO, 2005).

Selling fish by auctioning apart from selling in dozens whereby a predetermined price is charged by the fisher is common in Lake Chilwa for most valuable fish species. Fish marketing distribution consists mainly of fish traders who either process their own catch or sell fresh fish utilizing private or public transport (FAO, 2005).

The Department of Fisheries in Malawi is putting in place measures to improve the efficiency of exploitation, value adding and marketing of fish (Malawi Government, 1999). Is an improvement on value adding and market infrastructure going to lead to an improvement in the sharing of benefits that accrue along the value chain? How to ensure equitable benefits accruing in a value chain is another major challenge (Hara, 2009). According to Zidack *et al.* (1992), productivity growth takes place not only in producing the fish, but also in processing, marketing and moving the fish down the value chain. These issues are being examined in this study.

Research Application

This study aims at analysing fish value chains so as to understand the market structure of fishers and other actors in the Lake Chilwa fisheries. It will undertake value chain mapping of *Barbus paludinosus* and *Oreochromis shiranus chilwae* from point of production to end markets, and analyse the cost efficiency and governance of the value chain. The process will contribute to a better understanding of how benefits accruing at each stage of the value chain are shared by the actors involved, identify the key actors within the chain, understand how value adding contributes to people's livelihoods and their income levels apart from analysing how institutions operate within the value chain. The study will also examine the efficiency of different actors within the value chain. As such it will assess both the allocative and technical efficiency of the fishers, fish processors and traders. The study will also conduct an analysis of different institutions within the value chain. Institutions are systems of established and the prevalent social rules that structure social interactions (Hodgson, 2006). The analysis will aim at knowing the actors whose decisions influence the outcome, the actors' stake in the outcome, the rules that influence decision making, the incentives and disincentives these institutions create for the actors making decisions, the expected outcomes and desirability of these outcomes in terms of efficiency, equity sustainability and accountability.

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