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Beatrice Nöldeke "Gender-Specific Aspects of Transforming Fish Value Chains in Zambia"

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Summary

Fishing not only has substantial impacts on food security and health, but it is also of great importance for securing livelihoods and income. Due to its low entry-barriers, small-scale fishing can act as a safety net or an activity of last resort in developing countries. Hence, participation in the fish value chain is a complex matter that affects households in numerous ways. In the context of the increasing fish supply gap and consecutive exploitation of resources, the sustainable management of the fishery sector is of major importance for securing its various benefits. This thesis provides a comprehensive analysis of the multi-dimensional aspects of a household participating in the fish value chain. It will contribute to a better understanding of the impact of the fishery sector transformation on households as a whole as well as individual household members. Precise1y, this thesis determined gender-specific factors affecting a household's participation in fish production. In addition, the determinants of household food security with special interest on the contribution of household fish production and gendered resource ownership were identified. Lastly, the thesis examined the impact factors on intra-household allocation of fish in Zambia.

In order to answer the research questions, this master thesis used data from Nchelenge district in northern Luapula province in Zambia obtained by a structured household survey in September 2015 in the context of the project "Food Security in rural Zambia". Based on this data, descriptive analysis as well as econometric models were applied. In order to determine gender-specific factors affecting the probability of a household participating in fish production probit and logit models were employed. Linear regression models with multiple regressors were used to determine impact factors of household food security quantified by the food consumption score as well as the influences on the equality of intra-household allocation of fish measured by the Theil index. To assess gender-specific aspects in particular, the regressions were not only run on the whole sample, but male and female headed households were analyzed separately as well. Besides this comparison of male and female led households, two different areas within the study region were compared since only one of them has direct access to Lake Mweru. In addition to the regressions performed, key informant interviews and stakeholder group discussions were conducted in the study area and

the capital during a two-week period in March 2017. The results of these discussions were used to reinforce the econometric results, explain discrepancies between the results and the literature and gain further insights.

The first regression analyzes motivating factors and constraints of household fish production. It shows that area is one of the main determinants of household engagement in the fish value chain. This result corresponds with expectations as one area has direct access to the lake while the other does not. In line with the descriptive results, the regression further shows that at least in the area close to the lake fish production is more common amongst male headed households. This reflects the gendered division of labor which is very common in the fish value chain: Whilst women engage in the post-harvest sector as processors or traders, fishing itself is considered male domain. Moreover, the findings suggest that fishing is likely to be integrated in a multi-occupational livelihood portfolio due to a number of benefits and synergetic effects. The common perception of fishers belonging to the poorest of the poor cannot be confirmed. In contrast, fish production in the study area is associated with high er income levels suggesting that fishing is not an activity of last resort.

The second regression implies that food security is highly gender-related as education of the wife and decisions about livestock taken by a female increase food security. In addition to income and area also livestock holdings improve food security, but the production offish itself does not. This result suggests that fishing is more likely to be undertaken as an income generating activity and not for self-consumption. Furthermore, the results indicate that male and female headed households pursue different strategies in order to combat food insecurity: Females are more likely to rely on own food production as a direct source of subsistence while for men income generation is the primary objective of those activities.

Also the third regression reveals gender-specific effects as a more equal distribution of fish within the household is caused if females allocate the food. This is consistent with the commonly found preference of women to care for the whole family's wellbeing and protect children in particular. However, in contrast to other empirical studies, share of assets controlled by a female as a measure of bargaining power does not influence the intra-household allocation of fish significantly in this context. Household size and dependency ratio increase intra-household equality of fish consumption suggesting that children bargain for bigger shares of food in groups.

These findings imply that empowering females in the fish value chain is highly advantageous because of their role in ensuring food security and their interest in the wellbeing of the whole family. Furthermore, integrating fishing into multi-occupational livelihood portfolios creates diverse advantages and enhances household's resilience against and ability to cope with changes of the fishery sector.

Despite those interesting and useful results, some challenges have occurred during the analysis. One main problem during the examination was the lack of data. For example, some information such as the fish production was only available on household level, but it was not clear which household member produced the fish.

In conclusion, this master thesis gives important insights into motivational factors and constraints of engagement in fish value chains, the contribution of fishing to food security as well as the allocation of fish within the household. Based on the obtained results, promoting female empowerment within the fishery sector as well as integrating fishing into multi-livelihood portfolios are important steps when transforming fish value chains in order to cope

with the ongoing changes and protect the numerous benefits that many rural Zambians receive through the fishery sector