

Research Application Summary

**Enhancing fish production and marketing for food security and rural incomes of small-scale producers in Malawi**

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**Abstract**

Low fish production continues to be persistent problem among small scale farmers in Sub-Saharan Africa. An action research using the value chain approach that links university and other actors to the farmers will guide implementation of this project to enhance fish production and marketing in the Central part of Malawi. The project will be undertaken to consolidate breeding nuclei for improved fish strain of *Oreochromis shiranus* and link it with multiplier and production farmers; determine and adapt best bet technologies for improved strain, understand socio-economic and institutional factors that affect adoption and marketing of fish in order to identify alternative marketing strategies, identify critical success factors for farmer organisation and microfinance institutions and their impact on rural livelihoods and identify key determinant factors for successful innovations within Malawi fish farming systems. Various actors along the value chain from input suppliers to consumers will be involved, including data generators such as University staff, students, and other stakeholders. The project will be working with 160 fish farmers to increase their incomes. Two MSc and one PhD students will be engaged as a capacity building initiative in action research and value chain analysis.

Key words: Action research, experiential learning, low fish production, Malawi, RUFORUM, value chain approach

**Résumé**

La basse production de poissons continue à être un problème persistant parmi les petits fermiers en Afrique Sub-saharienne. Une recherche-action employant l'approche de chaîne de

valeurs qui lie l'université et d'autres acteurs aux agriculteurs guidera l'exécution de ce projet pour augmenter la production et la vente de poissons dans la région centrale du Malawi. Le projet sera entrepris pour consolider les noyaux de reproduction pour la contrainte améliorée de poissons de *Oreochromis shiranus* et pour la lier avec des multiplicateurs et des agriculteurs de production ; il déterminera et adaptera les meilleures technologies de pari pour la contrainte améliorée, comprendra les facteurs socio-économiques et institutionnels qui affectent l'adoption et la vente des poissons afin d'identifier des stratégies alternatives de vente ; il identifiera des facteurs critiques de succès pour l'organisation des fermiers et des institutions de microfinance et leur impact sur des vies rurales et identifiera des facteurs déterminants principaux pour les innovations réussies dans des systèmes de pisciculture du Malawi. Les divers acteurs le long de la chaîne de valeurs des fournisseurs des intrants aux consommateurs seront impliqués, y compris des générateurs de données tels que le personnel d'université, des étudiants et d'autres entrepreneurs. Le projet travaillera avec 160 éleveurs de poissons pour augmenter leurs revenus. Deux étudiants de maîtrise et un de doctorat seront engagés dans le cadre d'initiative au renforcement de capacité dans la recherche-action et l'analyse de chaîne de valeurs.

Mots clés: Recherche action, étude empirique, faible production de poissons, Malawi, RUFORUM, approche de la chaîne de valeurs

## Background

Fish production remains persistently low in Sub-Saharan Africa. Limitations range from technological including unavailability of quality fingerlings, high cost of feed and inability to manipulate pond environment to improve fish growth to institutional including inability of farmers to access and manage loans, and poor linkages with markets making the whole fish farming enterprise undesirable. Moreover, there is capacity gap in undertaking action research and value chain analysis and experiential learning is hardly linked to University teaching. The overall objective of this project is to increase fish production and rural incomes through application of aquaculture innovations throughout the value chain while utilising action research and linking experiential learning to inform and strengthen University curricula.

## Literature Summary

Community action research and value chain approaches are key drivers in economic development. Community action research enables people from different organizations to “see

themselves in one another;” and leveraging progress in individual organizations through cross-institutional links so as to sustain transformative changes that otherwise would die out (<http://www.psicopolis.com/Kurt/commar.htm>). Community action research produces a learning community which continually produces new theory and method, new tools, and new practical know-how (Senge and Scharmer 1994). The value chain approach, involves addressing the major constraints and opportunities faced by farmers and producers, processors, traders and other businesses at multiple levels and points along a given value chain (Kaplinsky and Morris, 2002). Thus a value chain analysis is also useful as an analytical tool in understanding the policy environment which provides for the efficient allocation of resources within the domestic economy. (<http://www.researchintouse.com/nrk/RIUinfo/valuechain/valuechain.htm>)

### **Study Description**

The project will be undertaken in Kasungu Agricultural Development Divisions (ADD), in the Central region of Malawi to complement ongoing research and outreach activities within the area. Within the ADDs, eight clusters of 20 fish farmers each will be formed in Dowa, and Mchinji districts; hence a total of 160 innovative fish farmers will form part of the project clusters of fish farmers. The clusters will form the nuclei for organizational development and microfinance activities such as scheduled fish production, bulk purchasing of fingerlings, feeds, and sale of their product. These clusters will be linked to the ongoing activities of enhancing capacity of Innovative Fish Farmers Network Trust which are being undertaken by Research Into Use, Malawi Government Fisheries Department, Farmers Union of Malawi and Bunda College. Experiences from the project will feed into University curriculum through implementing staff and two MSc and one PhD student.

### **Research Application**

The project is expected over the years to contribute to increasing productivity of fish from the current 750 kg/ha/annum to at least 1500 kg/ha/annum with an increase of at least 30 percent in farmers’ incomes. Further, through the project, capacity of Malawians and in particular, women, is expected to be enhanced through MSc and PhD training. The project is also expected to enrich University of Malawi curricula through outreach and experiential learning approach.

### **Acknowledgement**

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university “Outreach” activities and experiential learning to inform University curricula.

## References

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