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## "Competition for Resources in a Changing World: New Drive for Rural Development"

## Fighting Poverty and Unemployment with Efficient Fish Farming in Nigeria

Sylvester Oluwadare Ojo<sup>1</sup>, Kolawole Ogundari<sup>2</sup>

<sup>1</sup>Federal University of Technology Akure, Department of Agricultural Economics and Extension, Nigeria <sup>2</sup>Georg-August Universität Göttingen, Department of Agricultural Economics and Rural Development, Germany

## Abstract

Most past agricultural policies to fight poverty and unemployment failed due to drudgery, large capital outlay, and low return to resources. Fish farming, which requires small capital outlay; has high returns to resources, is less tedious and alleviates nutritional deficiency coupled with Nigeria's high potentials in aquaculture production (about 1 million km² for subsistence and commercial aquaculture), will be the panacea for solving poverty and unemployment problems if efficiently managed.

This paper examined how efficient fish farming can solve the hydra-headed poverty, unemployment and nutritional deficiency problems in Nigeria especially among the educated youths. For the study, 100 fish farmers were selected using multistage sampling technique. Data were analysed using budgetary and stochastic frontier (production and cost functions) analyses to examine the profitability, productivity and efficiencies (technical (TE), allocative (AE) and economic (EE)) of fish farming enterprise in Nigeria. Results revealed that young, educated, well-trained people were involved in fish farming and private hatcheries, surface concrete tanks with spring water were the important technical factors in the enterprise. Average fish output of 12 800 kg with net-profit of N128.63 kg<sup>-1</sup> showed fish farming as profitable. Productive resources were efficiently utilised while overall production was in the economic efficient stage as shown by the return to scale (RTS) value of 0.381. The efficiency analyses showed significant levels of inefficiencies with cooperative membership positively affecting TE while AE were positively influenced by education, experience and cooperative membership. Though average TE, AE and EE were 0.866, 0.894 and 0.773 respectively, there was room for improvement in the fish farming efficiencies by paying attention to those variables in the inefficiency models that negatively influenced efficiencies while fish farming output would increase if attention is equally paid to those variables with negative elasticities of production.

The policy implication of the study is that efforts should be made by governments to mobilise and empower young school leavers to go into fish farming for income and employment generation and alleviation of nutritional deficiency.

**Keywords:** Fish farming, Nigeria, poverty, unemployment