Feed the Future Innovation Lab for Food Security Policy

Policy Research Brief 127 August 2021

Nigeria Agricultural Policy Project

The Structure of Dried Fish Marketing in Taraba State, Nigeria

Abu, G.A., Emmanuel, G and Obekpa, H.O

Introduction

Nigeria is endowed with a large area of inshore waters, and a vast inland system comprising natural and man-made lakes, rivers, creeks, lagoons and wetlands all of which support good varieties of fisheries. Fish is a very important agricultural product in Nigeria, and is largely consumed in the country due to its rich nutritional and medicinal values. It constitutes 40% of protein intake in the country (Federal Department of Fishery FDF, 2000). Fish contains more nutrients and is relatively cheaper compared to beef, pork and other animal protein sources in the country (Amiengheme, 2005). Global fish production has grown steadily in the last five decades, with food fish supply increasing at an average annual rate of 3.2 percent, outpacing world population growth at 1.6 percent. World per capita fish consumption increased from an average of 9.9kg in the 1960s to 13kg in 2012 (Food and Agriculture Organisation FAO, 2004).

Nigeria fish production volume and marketing falls below expectation. Fish is consumed as a fresh and a dried product in Nigeria. This is due to the preponderance of fish demand over supply. Although a vast array of literature on large-scale fish production exists in Nigeria (Inoni, 2007: Kudi, 2008: Dagtekin, 2009: Zabbey, 2010), there is paucity of information on the structure of fish marketing in Taraba State. The structure of dried fish markets point to some appropriate characteristics capable of defining sufficient fish market situation that have the ability of optimizing social welfare and maximizing the efficiency of the fish marketing system.

A sampling frame of 475 dried fish marketers was used and 188 fish marketers were randomly sampled for the survey. Data were analyzed using descriptive statistics.

Table 1 shows the computation of gini coeffient for retailers by monthly sales. The gini coefficient calculated was 0.47, which is closer to zero than one, therefore the market power is not concentrated in the hands of only a few fish traders. This implies that the activity of some wholesalers cannot affect the price and demand for fish in the market although there are some forms of inequality in the sale of dried fish.

Key Findings

- The structure of dried fish marketing system in the study area is monopolistic in structure.
- Dried fish marketing in the study area is mainly affected by insufficient capital, insecurity and seasonality of fish.

Constraints Faced in Fish Marketing

The result in Table 2 identifies the major problems faced by the fish marketers in the study area. Nearly five hundred respondents mentioned insufficient capital as the most serious constraint they faced. Capital is an essential and a veritable input in any enterprise, without which the success of the enterprise could be hampered. Money is needed for day-to-day running of fish marketing beginning from purchasing to transportation and other marketing activities.

The marketers in the study area also reported that insecurity challenges was a threat to their business and lives. These challenges led to the closing down of some markets for some period of time thereby hindering marketing activities. Seasonality in fish supply ranked third. Fish is seasonal, it is usually abundantly available during the rainy season and the demand for it is constant all year round. Therefore, marketers had to contend with supply imbalance. Other notable problems included pest infestation, fluctuation in prices, consumer choice, poor road network, poor patronage, poor market information, high cost of labor and poor storage facilities.

FEED THE FUTURE The U.S. Government's Global Hunger & Food Security Initiative
USAID FROM THE AMERICAN PEOPLE
MICHIGAN STATE UNIVERSITY
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE IFPRI
FMARD FEDERAL MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

This result agrees with Madugu et al., (2011), who revealed that poor access to capital was the most pressing problem of fish marketing in the area at 45%. It also tallies with Umoiyang (2014) on Economics of fish marketing in Akwa Ibom State, who found that fish marketing is constrained by lack of capital, seasonality of product, lack of Government assistance, poor extension services and lack of storage facilities.

Table 1: Computation of Gini coefficient by Monthly Fish Sales

Monthly Sales Range(₦)	Freq. of sellers	% of sellers (X)	Cum. % of sellers	Total value of monthly sales(₦)	% of Total sales	Cum. % of Total sales (Y)	XY
1 – 75,000	28	25	25	1,508,300	8.05	8.05	0.02012
75,001 – 150,000	32	28.57	53.57	3,421,400	18.26	26.31	0.07517
150,001 – 225,000	23	20.54	74.11	4,472,900	23.88	50.19	0.10309
225,001 – 300,000	12	10.71	84.82	3,097,500	16.54	66.73	0.07147
300,001 – 375,000	11	9.82	94.64	3,752,000	20.03	86.76	0.08502
375,001 – 450,000	6	5.36	100	2,480,800	13.24	100	0.0536
Total	**112**	**100**		**18,732,900**			**∑XY = 0.408475**

Table 2: Constraints Faced by Fish Sellers

Variables	Frequency	Rank
Insufficient capital	143	1st
Insecurity	129	2nd
Seasonality of fish	92	3rd
Poor road network	79	4th
Poor storage facilities	62	5th
Pest infestation	57	6th
Fluctuation in prices	55	7th
High cost of labour	52	8th
Consumer choice	50	9th
Poor market information	34	10th
Poor technical extension services	30	11th
Low demand/ patronage	26	12th
Total #	**809***	**100**

Source : Field Survey, 2018

***Multiple Responses**

Conclusion and Recommendations

The structure of fish marketing system in the study area was found to be monopolistic in nature. Fish marketing in the study area was mainly affected by insufficient capital, insecurity and seasonality of fish. The study found that insufficient capital was a major problem confronting the activities of the fish marketers. Funds in the form of aid and soft loans should be provided by the Government, banks or other financial institutions to the marketers. This action will help increase the capital base of the individual fish marketer and also attract more people into the

business. Government can assist marketers by providing and posting security agents to the market so as to reduce the insecurity challenges they face.

References

1. Amiengheme, P. (2005). The importance of fish in human nutrition. A paper delivered at a Fish Culture Forum, Federal Department of fish farmers Abuja
2. Dagtekin, O. A.K and F. Emeksiz, F. (2009). Socioeconomic Analysis and Marketing patterns of the fish farming industry in Trabzon, Turkey. Central Fisheries Research Institute Yomra, Turkey. American journal of agricultural economics, 65(3):133-147
3. Federal Department of Fishery (FDF) (2000). Report on presidential committee on fisheries and aquaculture development. Vol. 1. Consolidated report. Federal Department of Fisheries, Federal Ministry of Agriculture and Rural Development September 2005.
4. FAO (2004). Aquaculture production, fishery information data and statistics service. FAO fisheries circular 815:20-21.
5. Inoni, O. E. (2007). Allocative efficiency in pond fish production in Delta State, Nigeria: A production function approach. Agricultural tropical and subtropical publication. 40(4): 27-134.
6. Kudi, T.M.,Bako, F.P and Atala, T.K. (2008). Economics of Fish Production in Kaduna State, Nigeria. Journal of Agricultural and Biological science 3(5 & 6): 17-21
7. Zabbey, N. (2010). Exporting Shrimp Farming to Nigeria: Implications for Rural Livelihood and mangroves in the Niger Delta. Centre for Environment, Human Rights and Development (CEHRD), Eleme, Nigeria

About the Authors:

Godwin A. Abu is Professor in the Department of Agricultural Economics, University of Agriculture Makurdi, Benue State, Nigeria

G. Emmanuel is an Assistant Lecturer in the Department of Agricultural Economics, Taraba State University, Jalingo, Taraba State, Nigeria.

Hephzibah Onyeje Obekpa is a Ph.D student in the Department of Agricultural Economics, Federal University of Agriculture Makurdi, Benue State, Nigeria. Mrs. Hephzibah participated in this paper while at Michigan State University as part of her activities as a Project Scholar of the Feed the Future

This paper is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the Feed the Future USAID/Nigeria funded Food Security Policy Innovation Lab Associate Award, AID-620-LA-15-00001. The contents are the responsibility of Michigan State University and IFPRI. Any opinions expressed here belong to the authors and do not necessarily reflect those of MSU, IFPRI, USAID or the United States Government.

Published by the Department of Agricultural, Food, and Resource Economics, Michigan State University, Justin S. Morrill Hall of Agriculture, 446 West Circle Dr., Room 202, East Lansing, Michigan 48824