

FISH MARKETING AND FOOD SECURITY IN NIGERIA

Funmilola Omolara Agbebi, University of Ado Ekiti, Ekiti State, Nigeria,
funmiomolara@gmail.com

ABSTRACT

Fish is an important source of protein for the middle-class and elites across Nigeria. The handling, processing, and marketing of fish products are essential complementary functions of all food production systems. Additionally, the fish trade offers substantial employment opportunities in many coastal and inland areas where fish is caught. The importance of fishery products and its marketing had always been an important discourse among scholars due to its contributions to Gross National Product and the per capita income of fishermen in Nations with fishing capabilities. In Nigeria, however, given increasing demand for fish, there seems to be a potentially strong market for the product. And markets determine marketing policies. So, markets have to be considered before policy making can start. This study proffer solutions to some key questions in the study of marketing of fish products in Nigeria such as: Key questions on: commodity chains/networks, trader roles, control of market space, market information, credit provision, transportation questions, consumption pattern, food safety regulation, Key questions around legislation, standardization of weights and measures, trader associations, Pricing, the role of traditional authorities, and alternatives to traditional intermediaries/ forms of supply. This paper therefore focuses on fish marketing and food security in Nigeria. Its various stages of development were considered. The study also shows some major findings that will assist policy makers. It also revealed the key roles of storage and processing as main factors aimed at improving fish marketing in Nigeria.

Keywords: Fish Marketing, Food Security, Nigeria

INTRODUCTION

Fish is the main animal source of protein for the people of Nigeria. As a principal source of protein, the per capita production of fish is declining. Fish production from inland waters and coastal areas can be increased by adopting cage and pen culture systems. Input subsidies and loans to resource poor farmers can boost fish production. According to (FAO, 1998).there are some essential nutrients that are not found in these staples or found only in small quantities, for example, essential fatty acids, iron, zinc, calcium, vitamin A and vitamin C. Majority of people are highly dependent on fish as part of their daily diet in countries in Africa. (Lightfoot, 1998). According to Lightfoot, (1998), fish provide at least 40% of dietary animal protein. They also provide highly digestible energy and are a rich source of

fat and water soluble vitamins, minerals and fatty acids. Fisheries have contributed in the past towards poverty reduction in poor societies in the few area of the world in which it is traditionally practiced. Fishery sector provides employment for the citizens. It contributes more than 40% of animal protein consumed by average Nigerian. It generates income along its production, processing, preservation and marketing chains. The handling, processing, and marketing of fish products are essential complementary functions of all food production systems additionally; the fish trade offers substantial employment opportunities in many coastal and inland areas where fish is caught.(Kleih,2001)

Despite the subsistence nature of our capture fishery in Nigeria, as much as 50% losses are recorded .The result been economic loss to fisher folks, fish processor and marketer. Nigeria has a land mass of arable land estimated at about 923,771 km² and large forest and rangeland that covers 370, 000 km². There is a variety of livestock, comfortable climate including our 960km shoreline, rivers and lakes reaching 120,000 sq kilometers and a population of about 140 million, all these leave potential investors in agriculture with a large market and endless opportunities in Nigeria and even Africa. (FAO, 2000). Despite these natural endowments, the agricultural sector remains one of the most under invested in the country thereby hindering Nigeria's huge potential and ability to help stem food crisis in Africa. The fishery sub sector is also heavily underexploited with a domestic demand supply gap of nearly 1million metric tones per annum. This gap is usually filled with importation of canned and frozen fish, but Nigeria has great fishery potential that can support any level of fishing investment. With a coastline of 800km and an underexploited Exclusive Economic Zone of 256,000km² supported by a 1942500 km² brackish water, inland freshwater rivers, inshore fishery and the Lake Chad resource.

These resource bases support pelagic (bonga fishes, sardines, etc), dermasal resources (shrimps, Barracuda, etc) and tuna fishing and processing. This is besides an aquaculture resource base all over the country which is already attracting investment from domestic and foreign investors especially those from South East Asia. Enormous opportunities exist in production, commercial research, marketing, transportation, storage, retailing, financing and export with promising returns. (Tobor, 2004).

The fish marketing chain is an amalgam of economic, geographical and socio-cultural orientations. The chain itself starts with the harvesting of fish in several fishing villages/hamlets and terminates in the consumption centres of several cities. Each stage of the chain depicts varying intricacies of organisation and relationships. These organisational structures and relationships provide the building blocks of this study. Different stages of the chain involve the participation of different age groups, different genders, various ethnic groups and people at different levels of prosperity/poverty. According to Kabeer, (2003), the relationships in the interaction within a given stage and between one and others involve several networks of ethnicity, gendering and social capital particularly trust. It is the pattern of interaction within the fish marketing chain involving several socio-economic and geographical networks, with varying ramifications that is the focus of this study. The attention on these issues may throw up other critical ones fundamental in marketing re-organisation and the access of food (in this case fish) to the urban poor.

STRUCTURE OF FISHERIES SECTOR IN NIGERIA

Artisanal fishery has continued to dominate the fisheries, contributing over 85% of total fish production. The inland water and coastal seas are fully exploited and the increase in fishery production is not likely. Aquaculture potentials remain untapped as much as deep-sea fisheries. The combined potential of the fisheries resources- freshwater, marine and aquaculture can meet over 90% of the nation's demand for

fish. Opportunities for investments, therefore, exist in the various subsectors, especially in the areas of storage, processing, preservation and marketing for the capture fishery and fish seed multiplication for aquaculture.

CONTRIBUTION OF FISHERY SUB-SECTOR TO AGRICULTURAL SHARE OF GDP IN NIGERIA

The total contribution of fisheries to the Nigerian economy has been estimated at \$1 billion (about N150 billion) with a capitalization of N78.530 billion. In addition, the total aquaculture investment and capital contribution in the country are put at N7 billion and N20 billion respectively. “Total estimated capitalization is put at 16.5 billion. With these manpower and infrastructures, artisanal fish production system has a total landing of 504,000 MT at an average of N200, 000/ MT, would equal to NI00 billion”, “85,000 MT of fish are produced in fish farms in Nigeria, making the country the largest aquaculture producer in Africa, but this production is negligible when compared to projected yields estimated at two million tons. (Adamu, 2007). “Estimated 23,000 jobs could be created in this industry for fish handling and processing and marketing, production of some 45,000 tons in the next three years. This development will have significant economic impact doubling revenues from a \$US 50 million to a \$US 100 million a year industry. (Fatureti, 2005)

ROLE OF WOMEN

Women play significant roles in all aspects of fisheries—both in the artisanal, small-scale sector and in the commercial sector—roles that remain unarticulated and unrecognized. Importantly, women’s roles span reproduction and production. Women’s reproductive roles are essential for nurturing and sustaining families and communities, and ensuring food security through fishing, food foraging, farming and related activities. (Omotoso, 2002), The productive roles of women in fishing—collecting seaweed and other aquatic resources, processing and marketing the fish catch, making and repairing nets and gears, baiting longlines, helping in the preparation for fishing trips and in unloading and sorting the fish—contribute significantly to household incomes and local economies.

With the monetization of the fishing sector, the productive role of women has, in some cases, been extended to include new activities, previously forbidden by gender norms. (Agbebi, 2007). For instance, in some regions more women go fishing with their husbands or with other groups of women. In several countries of the North women are part of the commercial fishing sector, working as crew or skippers on industrial or family-owned vessels. Women also form a significant proportion of the workforce in industrial fish processing within the organized and unorganized sector, working for wages to sort, clean and process fish. (Omotoso, 2005).

The accompanying increase in work and incomes has not always resulted in increase in women's status within families and communities. Often, in keeping with prevailing patriarchal norms, the control of resources remains vested in men. In many cases, diversification and increase in roles has only meant an increase in women's labour. (Mutoro, 1997).

METHODOLOGY

STUDY AREA

The study areas are Ilaje and Ese-Odo Local Governments areas of Ondo State, Nigeria. The two local Governments are bounded in the north by Ikale Local Government area and to the south by the Atlantic ocean, with a coastline of 80km long. This makes Ondo State qualify as a maritime state and makes it rank among highest fish producers in the country. About 80% of the Local Government area is covered with water, swamp and flood plains. Rivers largely intersect the area. Avegetation of white mangrove- *Aucennia africana* and *Paspalum vaginatum* characterizes the coastline. Most of the flood plains of the coastal lagoon are covered by *Typaha*, *Avstralis* and *Eichornial crassipes*. (water hyacinth). The major means of transportation in the study are are motorized canoes, speed boats and paddled canoe. Most of the houses in the coastal and flood plain areas are built on elevated platforms above water level. Fishing and its related activities like processing, preservation and marketing are the major means of livelihood in the study area.

Focus group discussion and primary data were used for this stud. The primary data was collected using pretested and validated questionnaires. One hundred (100)

questionnaires were administered out of which eighty (80) were found usable. The eighty respondents were made up of fifty (30) wholesalers and thirty (30) retailers. Collected data were analyzed through the use of statistical tools like averages and percentage distribution.

RESULTS AND DISCUSSION.

Table 1: Income generation sources of respondents:

Occupation	Number of respondents	Frequency (%)
Fish marketing	48	60.0
Farming	28	35.0
Others	4	5.0
Total	80	100

Table 2: Sources of loan by the respondents:

Sources	Number of respondents	Frequency
NON-INSTITUTIONAL		
Relatives	5	7.77
Group contribution	10	15.56
Cooperative societies	30	46.67
Total	45	70
INSTITUTIONAL		
NGO	15	13.80
Govt. lendingscheme	8	7.36
Bank	2	1.84
Total	25	23
OTHERS		
Personal savings	10	7
Total	10	7

The above table shows that seventy (70%) of the respondents secured their loans from non-institutional sources like relatives, group contribution and fish marketers cooperative societies. Twenty-three (23%) secured their loans from Institutional sources and ten (10%) from other sources. Majority prefers the non-institutional sources of credit because, the loan is easy to access, it requires no collateral as majority of them are poor also, and it requires very little formalities to access. This however has some disadvantages too as revealed by the respondents. This include; most of the non-institutional sources provide loan as well as dominating the trading and influence the prices of fish by women in the study areas they are usually the wholesalers, also the interest is difficult to calculate. Unfortunately, the unfavorable financial condition of the women fishers who are usually the retailers compelled them to take the loan from non-institutional sources. Those that secured loan from institutional sources (23%) gave the following reasons for their action; prices of fish is not influenced or exploited and the interest is easier to calculate. However the advantages according to the respondents are; the loan is not easy to access and the procedure is cumbersome, it creates pressure, it has high interest rate and it requires collateral to access.

Table 3: Share of income along the marketing chain.

Market chain	Market share	Income	Share of income (%)	Per capita income/yr
Wholesalers	50	153600	64	51200
Retailers	30	86400	36	17280
Total	80	24000	100	68480
Mean	40	115000	50	34240

Table 4: Fish marketing income and poverty level:

Market chain	Per capita income/yr	Per capita income/day	Poverty line 1US= N 150
Wholesalers	51200	140.24	150
Retailers	17280	47.34	150
Total	68480	187.61	150
Mean	34240	93.80	150

The per capita income per day of the wholesalers (140.24) and retailers (47.34) is still lower than the recommended value of 1US = ₦150. However, Per capita income of the wholesalers is very close to the recommended value because they dominate the market and they have more capital base to finance the business.

POLICY IMPLICATION

The operational characteristics and the constraints in the fish marketing chain throw-up a number of policy issues. Social capital, including trust has proved to be a fundamental facilitator of the marketing chain. What seems to have been important is the relationship built over the years through interaction in the marketing chain. This is a good basis for not only improving the marketing processes but also encouraging ethnic harmony particularly in ethnically polarized cities and areas. The exclusive female marketing system may be a basis for economically empowering women. The experience of many of the traders has been such that the fish trade has provided an opportunity for them to break the poverty and unemployment circle. Many of the women interviewed during the focus group discussion indicated that most of them were unemployed and depressed until they were introduced to the fish trade usually by their relations or acquaintances. Whereas the fish marketing system provides a basis for some meaningful policies, there are aspects that require reform. The most critical is the elongation of the marketing chain because of the intervention of several middle men. Perhaps, this may in certain cases provide additional income for some rural

dwellers. However, this complicates the protein-deficiency problem of the urban poor particularly children as the prices of fish may unnecessarily become unaffordable

CONCLUSION AND RECOMMENDATION

It can be concluded from this study that fish marketing can contribute to income and food security in the study area. However, the potential of the contribution can be enhanced by increasing the capital base of the marketers through institutional credit supply.

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