

SALIENT ISSUES IN FISH MARKETING SYSTEM IN NIGERIA

Agbebi, F. O.

*Department of Forestry, Wildlife and Fisheries Management
University of Ado Ekiti, Ado-Ekiti,
Ekiti State, Nigeria
E-mail: funmiomolara@gmail.com*

ABSTRACT

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. Since markets determine marketing policies, it has to be considered before policy making can start. This paper therefore focuses on salient issues in fish marketing in Nigeria. Its various stages of development were considered. It was revealed that the key roles of storage and processing are the main factors aimed at improving fish marketing in Nigeria. Among others the development of large-scale post harvests technologies and the improvement of transportation systems that can support the delivery of fish products to market has been recommended.

Keywords: Fishery, marketing, salient issues, fish.

INTRODUCTION

Nigeria, according to the FAO (2005) ranking is a developing fishing Nation. With a coastline of 853Kms, the country has a strong fish culture supported by natural catch fisheries throughout the year with a total production of 960,000Metric tons (FOS, 2008). Despite Nigeria's rich moderate tidal dynamics in her coast and the existence of high fisheries potentials, notably within the upwelling zones of the continental shelf or the enrichment of the land based sources through the rivers, Nigeria fisheries have for a long time consisted of localized activities aimed at providing protein to her teeming population.

This can be explained by the low level technology of fishing gears (dugout canoes using paddles) and less developed preservation techniques (Salting, sun and smoke drying). Hence, there is a huge supply- demand gap for fishery products in Nigeria: 960,000 tons of supply against 1,000,000 tons of demand (Bowen *et al*, 2005). The high demand for fishery products arise from the awareness of its significance in the local diet and its favorable price compared to its substitutes. The 1970-74 drought, which decimated the population of livestock in the Northern part of Nigeria made meat to be scarce hence demand shifted to fish.

The religious background of some section of the Nigerian populace also contributes to the high demand for fish. Some are forbidding eating beef or pork hence, consumer preference shifted to fishery products. The demand is further supported by income and population growth in urban areas and a high food insecurity of the rural population. As demands are increasing, the supplies of fish from Nigeria's waters are threatened by increasing oil pollution, unsustainable fishing practices and the proliferation of water hyacinth. According to FAO (2008), Nigeria imported \$250 million of fisheries products in 2006 to cover the deficit in consumer demand. This situation of increasing demand and decreasing supply of fishery products provides an opportunity for fish farmers to capitalize on fish prices that are likely to increase in the short to medium term. A market economy is the one in which decision-making is decentralized, that is market issues are mainly determined by market forces; that is, demand and supply. This is unlike command economy in which decision making is decentralized and controlled by an authority (Roger, 2006).

In every economic system, there are three basic economic functions, no matter the nature, type and level of the government or economy (Brockhras, 2002). These are what and how much to be produced, how will it be produced, and for whom will it be produced. These imply that every economic system takes care of production, distribution and consumption of goods and services. Every economic system is tied to a political system through which people decide what their society desires.

A vital role of any economic system is co-ordination. It must see that individuals' decisions about what they do are co-ordinated with the society's wants and with what other individuals do. This co-ordination also includes, moral, social and political values, an economic integration which ensures that what an individual wants will not exceed what are available in the society (Colander, 2007). This partly explains why there is no economic system that can easily operate successfully outside the socio-cultural context of its indigenous environment.

FISH AND FISH MARKETING IN NIGERIA

Fishing is an ancient economic activity in Nigeria. Its activities cover both the coastal and inland waterways and it was of tremendous economic value to the pre-colonial Nigerians (Ehinmore, 2007). Fish was one of the major articles among Nigerian commodities of trade. Fish of various kinds were either dried in the sun or smoked in order to preserve them for long or short distance market. (See, Strde & Ifeka, 2006). Fresh fish were said to be marketed mostly in short distance areas owing to the perishable nature and problem of storage facility.

Professional fishing is characterized by craftsmanship and special skills, such as boat, canoe, paddle, float, buoy and net construction coupled with invention of a variety of indigenous fishing techniques and gear. Fishing in pre-colonial Nigeria till date engenders migration as many of its practitioners would have to leave their original settlements for better prospects elsewhere (Ayodeji, 2008). Fishing of the migratory type was very prominent among these tribes: Ilaje, Izon, Itsekiri, Efik, Jukun, Ijebu, Awori etc. From the pre-colonial period to date, the Ilaje are said to have been the most migratory, famous and professional both in inland and deep sea- fishing not only in Nigeria but in West and Central Africa (IUCN, 2007). Around the early 16th century, fishing is said to be practised with

rudimentary techniques and tools such as raffia materials, wood, and grasses ad with very limited scope (Ehinmore, 2007).

By the late 18th century to early 19th century, most Nigerian fishermen had started developing improved fishing gear and techniques such as clapnets, castnets, ita, egho, asuren, ojijon, agada, ighee, iyanma, ekobi ufo, riro, (Ehinmore, 1998) etc. Nigerian fishing economy was in this progressive stage of development on the eve of British colonization. The 1960 Independence led to advanced civilization and pronounced developments. It is on record however that the old trading system (trade by barter) phased out many decades, prior independence, gave room to the emergence of commercialization and trading in various commodities including fish which started gaining prominence.

According to Alverson & Paulik (2002) Marketing is as old as human beings. It is closely related to all endeavors. During the slave trade, marketing was primitive; it came in the form of barter (an exchange of goods for goods) and later graduated into monetary trade (cowries and shells were commonly used in Nigeria then).

Fish marketing in Nigeria, however, is hinged on some basic questions: What do consumers want? Which species? What price, size, form, quality, quantity and grading? Others are: What services do they want? When to sell? Where do people buy? Etc. According to Sen (2005), It is important to know that: the less familiar a specie is, the greater the risk that it will be rejected or take a long time to build up demand for it, people's taste are formed slowly and strongly influenced by traditional eating habits. Demand increases at the time of festivals and holidays. As prices rise, less is bought and as prices fall, more is bought and poor people are more likely to look for cheaper substitutes than rich people.

The Environmental factors asserted by Flood (2006) have a major part to play in Nigeria's fish marketing system. In Nigeria market, a fall in income per head results in the reduction of fish to be purchased, an awareness campaign about the importance of fish to human health will lead to increase in the purchase and consumption rate, a growth in population will lead to an increase in fish demand, a bumper harvest in other sectors of Agriculture, results in more money in circulation hence increase in demand for fish and A ban on fish importation leads to a rising demand for local fish.

Table 1: Description of fish market in Nigeria

Questions	Comments
Which species?	Look at the choices people are already making. People's tastes are strongly influenced by traditional eating habits. The less familiar a species is and the more different it is from the other fish or foods eaten, the greater the risk that it will be rejected or that it will take a long time to build up demand for it.
What form?	Normally the higher the quality of the fish, the larger the size, the greater the amount of the processing time and the higher will the cost of the fish be. It is not just a question of what the customers like, but also a question of how preferences are influenced by prices.
What size?	
What quality?	
Grading?	
What price?	Price is one of the main influences on the quantity that people buy. Normally as prices rise, less is bought and as prices fall, more is bought. However, there are big differences between markets in exactly how much sales change when prices change. If there are close substitutes to which people can turn when prices rise, sales falls considerably and if prices fall relative to the price of substitutes, sales will rise. Poor people will be more affected by prices than rich people.
What services? (e.g. method of preparation)	The closer the competition faced from other fishermen, the more important it is to pay attention to the details of people's requirements. If customers want to buy fish prepared in particular ways, it is best to find out what they are otherwise customers will buy from someone else who does offer these services.
When to sell?	Customers buy different amounts and types of fish at different times of the year. Sometimes this is because demand increases at the time of festivals and holidays. In this case, production should be planned as far as possible to meet demand at these times. Sometimes, fish are only landed by fishing boats at certain times, but this can mean unsatisfied demand at other times of the year. This presents an opportunity for the fisherman who can try to plan the time of fishing to meet the unsatisfied demand.
Where to buy?	Some fishermen are fortunate to have customers close to the fishing area, so they can sell at the landing sites. Others must take the fish to customers and identify the most convenient buying points for them. The most effective way of selling may involve using merchants and retailers. In this case, the fisherman must identify their needs as well and these are influenced by the needs of households but they are also concerned with matters of paying for fish, size of loads and the timing of deliveries.

FACTORS AFFECTING FISH MARKETING SYSTEM IN NIGERIA

There are many factors in the environment which have various impacts on fish markets in Nigeria. For instance, a technical breakthrough in the fishing business could increase competition from substitutes. A Government subsidy to help fish exports could open up new markets in other countries, rising prices of meat could increase the demand for fish, some other examples of the impact of environmental changes on fish markets in Nigeria are shown below:

Table 2: Environmental Factors affecting Fish Marketing System in Nigeria

Forces	Examples	Effects
Economic	Falling incomes per head	People have less money to buy fish
Political	Campaign to persuade people to eat fish	People eat more fish
Demographic	a) Population grows and income grows	a) Increase in demand for fish
	b) Population grows but family income does not	b) Families have less money to spend on high quality fish and need lower quality fish
Natural	Good agricultural harvest	People have more money to spend
International	Ban on fish importation	Rising demand for local fish
Social	People become more aware of the food value of fish	People eat more fish

TRADITIONAL FISH MARKETING

Fish production and marketing developed to a large extent during the post-independence era. The need to improve the nutritional intake of citizenry was partly responsible for the concerted efforts and renewed interest by the then Tafawa Balewa administration. The policing of Nigeria's territorial waters was carried out with vigour. During this era, (1960-1966), there was social stratification. The highest social class was the ruling cabinet; the middle class was the educated working elites and merchants. The artisans and the poor majority occupied the lowest ladder.

The lower the social class, the lower the taxation hence the higher the interest in fish farming and its rapid commercial development, hence there was a boom in its marketing and demands. Many markets emerged

for the product. Some are weekly, three days, five days and nine days. Others are tied with traditional ceremonies and festivals. The daily open markets were also in operation. There were also fish markets around the landing points. Fish caught are channeled to consumers through a variety of conduits including direct sales to households at canoe landing points on rivers or lakes. There are also sales to households via head load or bicycle traders. Wholesalers also collect fish with pick-up trucks in fairly large quantities delivering it to retailers and consumers. The predominant species in the landings of coastal artisanal fishery are the pelagics, which are definitely preferred smoked.

There is therefore a huge local processing industry dominated by women along the entire coast. It is characterized by individual, small-scale enterprises, mostly home-based. The products are aggregated in markets by wholesalers, also women, who take over the distribution to inland markets, up to the northern fringes of the country. There is an equally important and similar trade in the opposite direction, for processed fish from Lake Chad and some important rivers in the north. *Clarias* spp. from the lake is also preferred smoked. Insect infestation of traditionally cured fish is an important cause of post-harvest fish losses in Nigeria. This is because from the time the fish enters the net or the trap to the time it is taken to the market to be sold as fresh fish or throughout processing, storage, distribution and so on, it is susceptible to attack by insects. The losses to the stakeholders range from physical loss whereby it is either thrown away or consumed, economic loss, market force loss due to changes in the price of the fish, nutritional loss due to bio-chemical changes within fish flesh. In any of the losses, the monetary value of physical and quality loss combine to give total financial loss, which is very important in fish marketing.

MODERN FISH MARKETING

All over the fishing World, modernization, civilization and globalization with relative political stability have contributed immensely to the changing structure of fish marketing. In Nigeria, fish marketing as it exists today is not an exception of the sweeping changes blowing across the globe. However, fish marketing is a complex venture to an extent. From harvesting to transportation and processing over a wide geographical range by a large number of traders, the sector needs the support of all.

With the progressive development of the ice conservation facilities, Nigerian Government embarked on the importation of frozen fish to complement local production supply and to cover the deficit in consumer demand. The increment in demand was as a result of increase in population (between 10-15% annual growth rate) and shift in consumption due to favourable fish price compared to its substitutes. Also the rapid awareness that fish is rich in nutrient contributing an average of 20-25% of per caput animal protein intake and could be as high as 80% in coastal and riverside communities (FAO, 2000).

The importation is exclusively limited to small pelagic, which are made up of horse mackerels and sardines. In 2002 alone, the total value of fish import was \$159 million (FAO, 2005). Frozen fish imports constitute the category most widely distributed in the country, through a network of privately owned cold stores located in major cities. The fish is available frozen in city markets, and part of it is smoked for further distribution to village markets. The freshly frozen landings of the industrial fish trawlers also follow the same distribution network, but its availability far beyond the coastal landing sites is constrained by its limited quantity relative to the cheaper imports.

There is also a high demand from the large population and income levels close to the ports. The major freshwater species: Tilapia, Chrysichthys, Gymnarchus, Lates and Heterotis are preferred fresh, but are available fresh only at high cost. For reservoirs and lakes which are within or close to major human settlements, markets develop around the landing sites and the product is usually disposed of within hours of landing, partly to direct consumers and partly to marketers who may preserve for few days.

Most other landing sites in the inland water system are remote and facilities for preservation, other than smoking, are non-existent. Cooling vans also engage in distribution and marketing. Larger commercial marketing channels through supermarkets and open markets do exist catering for majority of wholesalers, retailers and urban consumers. Also, the processing and packaging has been improved over the years, such that it has the highest shelf life among the local products and is available in the markets of the very densely populated cities of Nigeria.

CONSTRAINTS OF FISH MARKETING IN NIGERIA

The major constraints facing fish marketing in Nigeria are pronounced in the various pre-harvesting methods of fishery products in Nigeria. Such methods involve the usage of mainly artisanal and to an extent, commercial (trawler system). These systems are not well developed and prone to wastages. The post-harvesting, which primarily involves processing, storage and preservation is in the lowest ebb. It should be noted that fishery products are extremely fragile and the type of physico-chemical techniques used in processing and conservation have a large part to play in targeting the markets and the prices. The artisanal fishing techniques used in Nigeria, which include preparation by smoke drying, salting and sun drying do not give a guarantee to products of the quality required for International markets. The type of the refrigerating system available does not permit the preservation of all the organoleptic quality of the fish. Infrastructural problems particularly transportation do militate against the development of fish marketing in Nigeria.

As a perishable commodity, transporting fishery products from source to market at adequate time is very essential to enhance positive net returns and reduce wastage. Dug-up canoes and the few existing outboard engines coupled with the limited number of trawlers are not adequate to ferry the products to the marketing point. It should be noted that prices are likely to be high in areas close to large and growing urban markets with good access to transportation.

Although Nigeria is well endowed with natural fishery resources, there is an increasing, inconclusive body of evidence indicating that the maximum sustainable yield (MSY) of Nigeria's primary catch fisheries has been surpassed. The MSY according to the FAO (2005) was 950,000 metric tons. The findings reveal that the sustainability and pollution issues facing Nigeria's natural fishery resources are in need of greater study. Evidence indicates that Nigeria may face limitations on natural fish supply particularly as the problem of water hyacinth and sea incursion become increasingly significant and threatens most of the coastal waters. Shifts in demand and supply are likely to increase prices for fish in the medium-term contributing to the profitability of fish farming. Also, demand and supply in combination with the transaction costs of marketing influence the price that fish farmers

can charge for their products. Increasing poverty among the rural people is also leading to increased demand for fish and fish products. Food insecurity and low agricultural productivity suggests that there is potential for fish farming to improve rural livelihoods.

However, the study indicate that average expenditure on fish by urban households are higher than that of rural households due to higher incomes in urban areas, though urban areas do not spend a higher proportion of their incomes on fish. Strong consumer preferences for fresh fish, which is a highly perishable commodity, make transportation a critical issue. Fish farmers close to main roads will have good access to potential traders and markets while those in remote locations will have to spend time transporting their catches to pick-up locations or having traders come to them, hence an increment in the transaction costs to traders and decreasing the fisherman's net returns. In the same vein, most fishermen will most likely be limited to subsistence catch and much localized marketing opportunities due to current constraints on transportation, lack of access to adequate processing facilities.

CONCLUSION

There is a great potential in fisheries and fish trade if the resources are rationally managed under International standards. The best way for Nigeria is to learn and assimilate ways of improving her fish marketing system from advanced fishing Nations like Japan, which has a well organized and developed central fish wholesale marketing network. The major actors in the enterprise must cooperate for the enhancement of a reliable marketing system for the country. In addition, the development of large-scale post harvests technologies and the improvement of transportation systems that can support the delivery of fish products to market. These are essential if fish will continue to contribute to Nigeria's dietary protein intake, generate more employments and increase the Gross Domestic Product.

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