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# WOMEN'S PARTICIPATION IN LOWER IKPA RIVER FISHERIES OF AKWA IBOM STATE, NIGERIA: A CASE STUDY OF IFIAYONG

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## *ABSTRACT*

*Ifiayong is a small local village market where economically and commercially important fin and shellfishes are landed. It is located very close to the Five Star and Ibom Le Meridian Hotels at Nwaniba beach. Women functioned as transporters, sorters, processors, financiers, distributors and marketers of the thirty-two finfish families, seven shellfish species together with three turtles (reptiles) encountered at the study site. Socio-economic survey revealed that ninety-four women modally aged 46-55years (34; 36.17%) participated in the fisheries and frequently communicated in Efik (40; 42.55%), and were mostly drop-outs (40; 40.56%) in educational level and polygamous (35; 38.30%). The modal family size was 11-15 persons (45; 47.87%) who invested ₦ 41,000 - ₦ 50,000 (28; 29.79%). Problems encountered by these women together with the corresponding solutions and appropriate recommendations proffered were highlighted with the aim of making Ifiayong a revenue generating and tourism centre for Uruan Local Council and Akwa Ibom State Government.*

**Keywords**: Women, *inaha*, Ifiayong, lower Ikpa River

## INTRODUCTION

Fisheries is an important sub-sector of the Nigerian economy (Shinkafi, 2007) which attracts various participants and contributors to the economic development of the nation. Fishing is the main occupation of the people of Akwa Ibom State of Nigeria. The State is blessed with several networks of streams, rivers and seasonally-flooded plains (ponds and swamps) which house some important socio-economic food fish species. Fisheries resources serve as sources of cheap protein diet, employment opportunities, recreation, tourism and research, among others. The fisheries enterprise employs both men and women, with most men preferring clean, good and higher paid white-collar jobs. Women are active participants in the traditional fisheries sub-sector. They are either wholly involved or complement the men in sustenance of their households. There is therefore a great need to encourage the women folk in this sector in order to increase fish supply as well as the overall economic wellbeing of fisher families.

The objective of this paper is to critically survey the participation of women in fisheries development at Ifiayong fish market in the lower Ikpa River; to identify the fishery resources; to investigate the socio-economic status of the women and to identify the problems facing them with the view of proffering solutions/recommendations.

## MATERIALS AND METHODS

### Study area

The Ikpa River is situated in Akwa Ibom State (latitude 05˚ 11' and longitude 07˚ 55') within the rainforest zone of southeastern Nigeria. It is a small

perennial rainforest tributary stream located west of the lower reaches of the Cross River system. It drains a catchment area of 516.5 $km^2$ (76.5 $km^2$ or 14.8% of which is liable to annual flooding). The total length of the main channel (between its source in Ikono and discharge point into the Cross River creek at Nwaniba) is 53.5 km. The Cross River finally empties into the Atlantic Ocean. Consequently, the lower Ikpa River experiences tidal effect as manifested in many marine (euryhaline) intrusive species (Udoidiong and King, 2000). Paddled canoes are landed during the high tide for the women who offloaded the catches. The stream is considerably shaded by overhanging canopy of riparian vegetation (mostly *Elaeis guineensis, Pandanus, Raphia hookeri, R. vinifera* and other tropical forest trees). The aquatic macrophytes are mainly *Nymphaea, Vossia, Utricularia and Musanga crinium* species. Climate of the area is typical of tropical rain forests: it comprises dry (November – March) and wet (April – October) seasons (King, 1989; Teugels *et al*., 1992; Udoidiong and King, 2000).

Ifiayong fish landing site is a local small village market with small, low, open shades built with bamboo (*Raphia* sp.) leaves, wooden pillars and two abandoned concrete blocks with zinc roof. The market is neglected and uncared for, with very poor sanitary condition, overgrown weeds, offensive odour from putrefying organic matter, indiscriminate refuse dump and human wastes. Foodstuffs and goods sold at the market include smoked iced-fish, stockfish heads, coconuts, groundnuts, dry pepper, palm oil, meat, afang (*Gnetum*), editan (*Lasianthera*), bitter leaf, clothings (wrappers, rubber slippers, fairly used dresses) and provisions (from only one store). When water inundates the marginal farmlands during the peak of the rainy season, farm produce such as cocoyam, cassava, pepper, okra, garden-eggs, pumpkin and water yam are harvested and sold at a very cheap cost.

**Fish sample collection**

Fish samples were collected and preserved in 10% diluted formaldehyde solution in well-labelled containers to reduce microbial digestion to the minimum (Fagade, 1983, Fagade and Olaniyan, 1973). All preserved samples were removed from the formaldehyde solution, rinsed in clean water and placed slanting with the mouth down to drain out excess fluid for about 5- 10 minutes prior identification. Specimens were identified to family level with the aid of identification keys by FAO/UN(1970), Ayaji (1979), Mills *et al.* (1988), Olaosebikan and Raji (1988), FAO(1990), Teugels *et al*. (1992), Edwards *et al.* (2001), Idodo-Umeh (2005) and Adesulu and Syneden (2007).

Personal observations and interviews with the fishers helped to provide some information about the socioeconomic situation of the fishers and their personal perception on the state of the fishery. These were subsequently subjected to simple descriptive statistics and ranking by quantification analysis (Tafida *et al*., 2009).

## RESULTS

**Fishery resources of Ifiayong**

Thirty-two finfish families of commercial, food and economic importance were landed at Ifiayong namely: mormyridae, mochokidae, bagridae, malapterurıdae, lutjanidae, ariidae, anabantidae, carangidae, centropomidae, channidae, characidae, cichlidae, citharinidae, clarridae, clupeidae, cynoglossidae, cyprinidae, distichodontidae, eleotridae, elopidae, gobiidae, hepsetidae, icthyboridae, monodactylidae, mugilidae, notopteridae, polynemidae, pomadasidae, scaenidae, schilbeidae, soleidae and sphyraenidae. Seven commercially important freshwater shellfishes identified included freshwater clam, crabs, periwinkles and shrimps. Three turtles (reptiles) were also seen among the catches landed at Ifiayong. The fisheries resources

observed show a high endemic piscine richness of freshwater families. Seventeen (17) of the 25 fish families earlier reported by Udoidiong and King (2000) in a study of five streams/rivers (Ikpa River inclusive), were encountered in this study to confirm the species richness of this site. Since rivers serve as feeding, spawning and nursery habitat for freshwater and some marine intrusive species, they contribute to fish recruitment into coastal fisheries and form an important part of freshwater fisheries of the Cross, Qua Iboe and Imo Rivers (Teugels *et al*., 1992; Udoidiong and King, 2000). Moses (1987) and Essen (1990) also reported of the presence of some shellfishes in the Cross River system to include freshwater clam (*Egeria radiata*), periwinkle (*Pachymelania brachyiatus*), shrimp (*Macrobranchium vollenhevenii), Atya gabonensis,* pink shrimp *(Penaeus notialis).*

The bagridae had established firmly and can neither be classified as fresh, brackish nor marine fishes (Udoidiong and King, 2000). The bagrid fish *Chrysichthys* popularly known as "*inaha*" is of special interest in at this landing site and to the people of the State. It is fished using long line gear and landed in large quantities (Moses, 1979; 1983). It is harvested throughout the year, but the main season is April to September (1983, 1987; Essen 1990). The "*inaha*" fishers are all males since the lower Ikpa River is quite deep due to dredging. Nwabeze *et al*. (2009) also observed that a majority of the fishers in Ondo State were males.

**Women participation in fisheries activities**

Fig. 1 shows the involvement of Ifiayong women in fisheries transactions as transporting, marketing and distributing fish/goods to consumers, confirming the reports of Alamu (1999); Williams (2006); Shinkafi (2007); Agbontale (2009); Usman *et al*., (2009). However, Shinkafi (2007) observed that due to socio-cultural as well as religious beliefs, majority of the women in Sokoto were not engaged in outdoor activities; fisheries being inclusive. The involvement of Ifiayong women are as:-

**Transporters**

When the fishers landed with their catches together with other farm produce, the female loaders (transporters) wade through the water to the sides of boat and offload them into large basins. These are brought to the stalls where they were poured on the well-swept bare floor. For their labours, they were paid an agreed amount of money together with a small part of the landings.

**Sorters**

This group of women wait at the stalls for catches to be delivered, thereafter; they sort the catch into species and sizes into prospective buyers´ basins or onto the floor, with the help of the fishers. They are paid in kind with some of the catch.

**Processors**

These are mainly fishers' wives, female children, their grandchildren and other women who are involved in descaling, gutting, spine removal, washing and staking (in long or small sticks) before smoke-drying over smoking kilns. They are paid in kind with some of the catch and commission after sales.

**Financiers**

These women have good financial standing, buy fishing inputs (such as fishing nets, traps, canoes, lanterns, foodstuffs, etc.) and supply to the fishers. Depending on the agreement, the catches on landing belong to the financiers (women) who thereafter, sell some and share some with the fishers. Alternately, the fisher sells the catches to the financiers (women) at very low cost, whole make huge gains re-selling to the wholesalers and retailers at a higher profit margin.

**Distributors and marketers**

This duty is performed by wholesalers and retailers in the fishery. Individual consumers are prevented from buying directly from the fishers. The catch passes through a marketing chain from the fisher

to the wholesalers and retailers who sometimes were more than one or two. Some wholesalers buy the fish and re-sell to the retailers and consumers in the same market; others take the fish to yet other village markets. Retailers also hawk some fresh fish in basins around villages, markets and offices. Some make supplies to customers in hotels, restaurants and rich families in and outside the State.

Usman *et al*., (2009) classified the marketing intermediaries (middlemen) into 2 groups: selling brokers (who are fishers with commission, lending money to other fishers and providing security for the unsold fish) and buying brokers (who assist those that want to buy fish while the buyer gives them little amount of money as a commission). Middlemen do not have title to the products but receive a fee for expediting the exchange. Their functions include maintaining contacts with buyers, negotiating a price, delivery, transfer of title, providing credits/collections, servicing of products and other services, product inventory/storage and arranging transportation. Women in this research were observed to operate as middlemen as well as perform other important roles as gear construction, fish catch, fishmongers, concern citizens of healthy living and organizers of the end-use of the fishery resource (Francis and Ibim, 2009; Ogah *et al*., 2009).

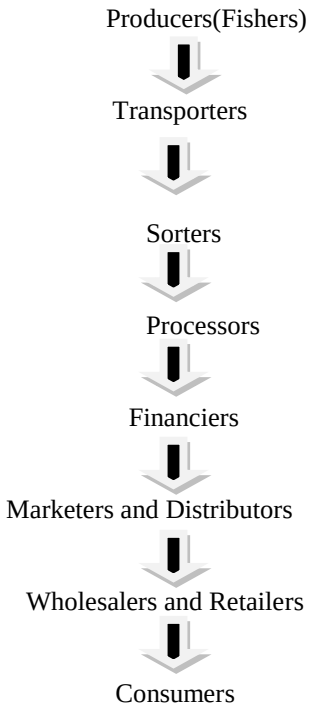


**Fig.1**: Flow chart showing women's participation in fisheries activities at Ifiayong, Ikpa River, Nigeria

**Table 1: Socio-economic status of women in fisheries in Ifiayong along Ikpa River, Nigeria**

| Parameters | Fo | % O | Parameters | Fo | % O |
|---|---|---|---|---|---|
| **1. Language** | | | **4. Marital status** | | |
| Efik | 40 | 42.55 | Single | 14 | 14.89 |
| Ibibio | 19 | 20.21 | Married | 26 | 27.66 |
| Pidgin English | 35 | 37.24 | Divorced | 8 | 8.51 |
| **Total** | **94** | **100** | Widow | 10 | 10.64 |
| **2. Age (years)** | | | Polygamous | 36 | 38.30 |
| 16 – 25 | 6 | 6.38 | **5. Family size (no of individuals)** | | |
| 26 – 35 | 16 | 17.02 | 0 – 5 | 8 | 8.51 |
| 36 – 45 | 24 | 25.53 | 6 – 10 | 25 | 26.60 |
| 46 – 55 | 34 | 36.17 | 11 – 15 | 45 | 47.87 |
| 56 – 65 | 4 | 4.27 | 16 – above | 16 | 17.02 |
| 66 – 75 | 8 | 8.51 | **6. Financial inputs (₦000)** | | |
| ≥ 76 | 2 | 2.12 | ≤ ₦ 10 | 4 | 4.26 |
| **Total** | **94** | **100** | ₦ 11 – 20 | 22 | 23.40 |
| **3. Educational level** | | | ₦ 21 – 30 | 12 | 12.77 |
| Non-formal | 5 | 5.32 | ₦ 31 – 40 | 6 | 6.38 |
| Standard/Primary | 30 | 31.91 | ₦ 41 – 50 | 28 | 29.79 |
| Secondary | 19 | 20.21 | ₦ 51 – 60 | 14 | 14.89 |
| Dropouts | 40 | 42.56 | ≥ ₦ 61 | 8 | 8.51 |
| **Average** | **94** | **100** | **Average** | **94** | **100** |

Fo = Frequency of occurrence (no of individuals)
% O = Percent occurrence

**Status of the women in fisheries**

The socio-economic status of women participating in fisheries transactions in Ifiayong landing site is summarized in Table 1. Table 1 shows that most of the women communicated in Efik language 40 (42.55%), followed by pidgin (broken) English 35 (37.24%) and Ibibio language (19; 20.21%) was the least frequently used language. This is so because the fishers are believed to have been riverine descendants from Calabar who had settled at Uruan due to migration and marriage. Their forbears in Calabar are popularly known as the *Efiks* and speak Efik as their mother tongue. The most active age group of the women participating in fisheries enterprise at Ifiayong landing site was 46-55 years (34; 36.17%). This agrees with the observation of Nwabeze *et al*., (2009) that women of this age group are economically active and independent and have the potentials to sustain and withstand the dynamism of fisheries. The other age groups in order of descending frequencies are 36-45, 26-35, 66-75, 16-25, 56-65 and 76 years and above, as the least group.

The educational attainments of the women ranged from those with no formal education at all to those with Secondary School Certificate: 5.32 - 31.91%. Majority of the women are Secondary School drop-outs (42.56%) implying that the fisheries here was considered a dumping ground for illiterates or for people who were not able to make it in academics. This is opposed to the findings of Nwabeze *et al*. (2006) in which the majority of the fishers had tertiary education which enabled positive responses towards improved techniques. The women were mostly from polygamous families (38.30%) and married (27.66%). Few were single (14.89%), widows (10.64%) and divorced (8.51%). The family sizes of the women in fisheries as depicted in Table 1 shows they maintain large families of 11-15 persons per family (47.87%) while the least was 0-5 persons (8.51%). Riverine inhabitants are lovers of large family sizes as evidenced in the high rate of polygamous marital status. This is occasioned by the fact that as children are born into the family, they learn the trade (fisheries) of the parents, become adapted to the rural standard of living, do not attend (or manage to attend) Primary School and marry. Majority of the women (29.79%) employ ₦ 41,000.00 to ₦ 50,000.00 in the trade.

**Problems encountered by the women**

The problems faced by the participating women in fisheries in this area were multi-faceted with various manifestations (DFID/FAO, 2004; Wara *et al*., 2007; Tafida *et al*., 2009). There were also specific problems of illiteracy, lack of co-operative societies, lack of financial assistance from government, financial houses and individuals; poor sanitary conditions, lack of storage facilities and infra-structural amenities like medical attention, pipe-borne water, cold stores, etc.. Others are lack of fisheries extension services, lack of capital and credit facilities and lack of Government presence. In addition to these, Ogah *et al.* (2009) identified the major constraints of women to be non-involvement in the decision making, some cultural practices and no organized markets.

**Proffered solutions and recommendations**

Considering the contributions of these women and the significance of the fisheries of Ifiayong landing site, there is need for:

- Intervention programmes by the State and Local Governments with the view of generating revenues.
- An adult education centre/migrant fishermen school should be established.
- The fisheries should be re-organised with the community involvement in the administration, especially with a Fishers Cooperative in place.
- Sanitary and health inspectors should engage the community in general health/sanitation campaigns.

- Fisheries extension services targeting women should be extended to the community.
- In order to control and manage the fisheries at a sustainable level, there is an urgent need for statistical data documentation of the fisheries. A fisheries data collection desk officer should be engaged.
- There should be provisions of social and infra-structural amenities and financial assistance or provision of subsidies to help boost outputs.
- More stalls should be built with tables for the display of catches.

## CONCLUSION

The fisheries resources landed at Ifiayong show a high biodiversity in terms of richness and economic importance. It can be sustained for generations, if developed, conserved and properly managed. The women are the livewire of this site. They are gainfully employed as co-labourers and bring food, income and happiness to their families, thereby raising the standard of livelihood. The constraints are however enormous but surmountable; requiring the urgent intervention of the government, community, corporate bodies and individuals.

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