

## Role of Women in Fisheries and Aquaculture in Kano State, Nigeria

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### Abstract

This review examines the participation and roles of women within the fisheries and aquaculture sector in Kano state, looking at their direct involvement in fishing and fish production as well as their indirect association with related activities (Marketing and distribution, processing, administration, management and public sectorial work, research, education and training). Women represent approximately 20% of Kano state population and 40% of the labor force. More than, 1000, people were fully engaged in fisheries activities in 2010. Studies have shown that of all the various fishing a sector, participation of women was highest in fish processing (approximately 30%) followed by inland aquaculture. Although there is limited data on women's roles in the Kano fisheries sector as a whole, women are known to play only a very minor role in fish capture in southern part of Nigeria. This participation is usually in the form of small scale activities on lakes or as support to sea going spouses. Where women are employed in the aquaculture sector (5%), they are mainly involved in hatchery and live food units. Women also play an important role in administration, fisheries research, education and training as reflected by the numbers of female graduates employed in such fields. The marketing of fresh products for local markets was found to be predominantly carried out by men. Women are also temporarily and permanently involved in activities such as fish vaccination and the construction and manufacture of nets. Women play a key and vital role in the Fisheries value chain in Nigeria especially when we look at their involvement in the marine, artisanal and Aquaculture sub-sector of the Fisheries. The women who constitute the greater percentage of the fish mongers/processors represent the first segment of the fish market chain; buying fresh fish directly from the fishermen; the fish is either sold fresh by the women, or processed by smoking.

**Keywords:** Women, Aquaculture, Fisheries, Kano State, Nigeria.

### INTRODUCTION

Aquaculture can contribute significantly to food security, employment and foreign exchange generation. According to Moehl (2003), aquaculture is progressively replacing cocoa, the traditional cash crop as the prime income earner. For instance in Cameroon, aquaculture is currently earning the family some mt 800,000 per year, a 40 percent increase over pre- aquaculture cash income. In Nigeria, more than 100 private commercial fish farms are currently in production Moehl, 2003. Fish farm in Nigeria presently covers an estimated 60,000 ha of the country and produces some 25,000 to 30,000 mt of fish per year (Moehl, 2003). Despite, the current increase in aquaculture production in Nigeria, there is no available sex disaggregated data on employment in the aquaculture sector. According to Luz Lopez-Rodriguez (1993), gender is often left out as a variable in development programs, including those on environmental resource management. Most literature focuses on the bio-physical components of ecosystems and the technical aspects of production efficiency, ecological conservation and rehabilitation Felsing *et al.*2001. Recently, there is growing attention to the unequal access to fishery resources in fishing communities and an advocacy for the empowerment of poor fishers Fos (1998). However, most researches and development programs still generally regard fishers as men and remain oblivious to women's direct participation in fishing and their contribution to the fishing industry. (Luz Lopez-Rodriguez, 1993, Murray, 1998). Gender refers not to women or men per se, but to the social relations between them that defines their roles. Gender roles are therefore not determined biologically but are constructed socially and can differ between cultures and environments. As a central consumption and distribution in aquaculture. Mabunay (1995) noted the bias of research procedures in some studies of fishing villages in Asia which undervalue the role of women in the economic process. Research projects employed male field workers who depended on male informants who also tend to designate men as immediate beneficiaries of rural and/or fishery development projects. Women directly involved in fishing are more likely to be referred to as helpers or auxiliary fishers assisting their husband-fishers in handling simple fishing equipment gleaning, fish processing, trading, and mending of nets. Women are very much part of this production, from pre-harvest, harvest, to post-harvest stages. Guste *et al* (2004). In the Philippines, Guste *et al* (2004) reported that government estimates that the female labor force is some 11.67 million. But close to 73% of the government's "not in the labor force" category is composed of women.

## **WOMEN IN AQUACULTURE**

The role of women in aquaculture, like their role in the rest of the economy, is shaped by the changing division of labor in society. With the unprecedented growth of aquaculture and the diminishing fish harvests of recent years, aquaculture appears to be a promising route to achieve food and nutritional security in developing countries (FAO 2004). It now represents the fastest growing food sector in the agricultural industry (FAO 2006). Where women are employed in aquaculture they are predominantly involved in actual production than managerial roles. Women rarely hold senior management positions in the aquaculture sector and men have more promotion opportunities. Jobs in aquaculture are widely perceived as being dangerous and uncomfortable for women. As a result women have a low representation in the sector (12% of aquaculture workforce), are usually in jobs of lower importance and often on a temporary basis (FAO 2006). Despite similar dangerous and uncomfortable for women. As a result women have a low representation in the sector (12% of aquaculture workforce), are usually in jobs of lower importance and often on a temporary basis (FAO 2006). Despite similar working hours and conditions, women's salaries are lower than their male counterparts in the private sector.

## **WOMEN IN NIGERIAN FISHERIES SECTOR**

Nigerian women play very important role in the various Sector of Nigerian fisheries; they are engaged in wide range of activities (especially in processing and marketing)-like other women in fisheries all over the World; the Nigerian women in fisheries are no exception; they are the backbone of fresh and dry fish marketing from very early times by vending in rudimentary fish markets as well as carrying fish on head load sales, door to door.

## **COOPERATIVE AND ROLE OF WOMEN IN FISHERIES AND AQUACULTURE SECTOR**

Over the years the Nigerian women in the fisheries value-chain have been organized into fisheries cooperative society though we have a very, very few that do not belong to any union but operate solo (alone) with their operation. Being members of cooperative societies has enabled the women to upgrade their status (to an extent), as members are able to get government and private sector assistance in terms of loans (though often these funds are not enough): subsidized inputs, capacity building etc. Also, these cooperative societies are often used to protect the interest of the members as well as to facilitate equitable dealings with their fish suppliers (especially in the industrial and Aquaculture Sector); for often the members of the cooperative societies are able to argue and stick to a certain price regime with the supplier rather than the other way round (for example, if their leaders insist that no members should buy the fish at a price above a certain margin, you can be sure none of their members will) – this in essence shows their power as being part of a cooperative society.

## **CHALLENGES OF WOMEN IN FISHERIES AND AQUACULTURE**

The women's activities in the role of fisheries and aquaculture are characterized by low capital and technology input. Most of their fish handling operations are without appropriate capacity to meet national and international sanitary and technical standards and hence possess low substantial benefit in fish trade. Women's work in fish value chain has not been optimized or linked to value chain finance in Nigeria –thus they are limited to various financial services being put up by the commercial banks for the Agricultural Sector in the country. This lack of Cooperate finance has in essence debar the women from upgrading their fisheries activities and businesses in the various steps along the fisheries value chain, they have therefore not been able to build sustainable and viable fish trade especially when it comes to the export of fish and other fishery products.

**ROLE PLAY BY WOMEN IN FISHERIES AND AQUACULTURE IN KANO STATE** Number and range of participants were identified along the marketing channel of different forms of fresh water fish. The participants operate between the fishermen and the final consumers. It is however important to note that even the fishermen are very important participants In the marketing system. The participants are as follows: Fishermen, wholesalers, retailers, commission agents, child-fish hawkers and the fish processors. These participants were classified into four (4) according to the major functional roles namely: fishermen, fish processors, traders (wholesalers and retailers) commission agents and child-fish hawkers. Their Functions and roles are discussed and presented as follows.

### **Fish processors**

Fish processors actively participate in the marketing of fresh water fish. The major role of these participants is the change in form and value addition to the product. The processors create utilities of form and time by changing the fresh fish to smoke-dried or sun-dried form. When processed the fish gained more shelf-life. Thus it could be stored and marketed over longer period of time and space. Supply of processed fish whether smoke-dried or sun-dried was from the processors through commission agents to the urban wholesalers, retailers and then consumers in the urban centers and so on. Smoke drying of fish is mainly done by women processors who reside in the fishing communities of the area. There was less involvement of rural women in sun drying activities compared to men. Smaller quantities of fish are sun dried by women while the bulk of smoking is done by the

women. Men are the major source of sun dried fish. The sun drying is usually done at the waterside. There was also evidence of fishermen involvement in sun drying of fish. The processing methods use for sun drying and smoking were local not improved. Women processors used round mud kilns with wire gauze on top to support fish while fire is set underneath to provide the needed heat and smoke for the gradual drying of fish. Regular turning of fish takes place until the fish is adequately smoke dried. The sun drying of fish is also achieved locally by means of local mats, drying racks, tarpaulins, and so on to spread the already cleaned fish in the sun. Medium and large fish are usually sliced opened and the intestines removed to accelerate the drying. These activities are done by the processors or by some helping hands under the supervision of the processors. The roles played by processors in marketing of fish are so significant that without them there would be outrageous post-harvest loss of fresh water fish product in the State, which could lead to scarcity of the commodity in many locations.

#### **Traders**

According to Ladu et al (2013), Fish traders are another set of important participants in the value addition chain analysis of fresh water fish. They take specific roles in the marketing of different forms of fish within and outside the State. Traders are not involved in fishing or processing of fish with few exceptions which include reprocessing of fish to maintain its value pending the time of sale. This could be observed especially during periods of gluts. Traders buy and take title of ownership of fresh or processed forms of fish from different market intermediaries as well as supply the fish to different market intermediaries and consumers. These traders include wholesalers and retailers at different levels and Locations within the marketing system of fresh water fish. The wholesalers buy in bulk from a major source (fishermen, processors) and sometimes appoint commission agents to bargain on their behalf. They supply to retailers for onward marketing. The level of investment of wholesalers in fish marketing is higher than that of retailers. Retailers receive supply from wholesalers and in some cases directly from a primary source such as fishermen. They sell in small quantities to consumers making a reasonable profit.

#### **Commission agents/Brokers**

Ladu *et al* (2013), Stated that, Commission agents play prominent role in the value addition chain analysis of fish especially the processed form. They also play a vital role in the bulking of fresh fish for regional marketing. Commission agents in the marketing of different forms of fresh water fish (like other commission agents) do not take title to the product but rather act on behalf of other traders along the marketing channels. They form the link between many intermediaries in the marketing channels. Among the roles played by this agents include provision of market information (price and demand) to women processors. Women processors rely on price information from commission agents to either sale or preserve their processed fish until the following market day. In return to services rendered, the agents receive commission. Women processors reported that they pay twenty naira to the agents for sale of small basin of processed fish. Commission agents compete for more customers (Processors, Wholesalers and so on) just as traders compete for prices.

#### **Teenegers Help**

Ladu *et al* (2013), Stated that, these are children of different sexes who engaged in helping their parents or guardians to market different forms of fish. Young girls assist mothers (Women processors) to deliver product to commission agents at urban markets for sale and return back home with income generated from the sales. Most often, these girls have to walk long distances to the urban markets to deliver the product and later returned to collect the money. Transport by means of vehicles is sometime arranged by groups of these girls to transport them and the product to the urban markets. Young males in the fishing communities are either engaged in fishing at waterside, or collection of fire wood in the bush. Younger children of seven or eight years were also identified among those engaged in hawking of smaller quantities of fresh and sun dried fish. These children go round neighboring villages (non fishing communities) selling fish to mostly rural women who use it to prepare soup for family consumption. The involvement of these children in marketing of fish helps in timely marketing thereby reducing post-harvest loss of the Commodity. However, many of these children lost the opportunity of going to school; and this have negative impact on the level of literacy in the fishing communities.

#### **Conclusion and Recommendations**

Women's involvement in fisheries and aquaculture can be taken into account by planners and policy-makers. Based on the key findings of the report, some proposals for improving women positions in the fisheries sector in Kano state are made here:

- Provide opportunities for a professional education

- Promote jobs with stability and future prospects, and promote equal pay for equal work.

- Improve working conditions

  - Provide training courses that permit women to expand into work activities currently dominated by men.

- Improve the educational levels of women.

  - Equal access to credit and participation in market development for women is needed to consolidate their position as traders.

In conclusion, fishery and aquaculture can play a key role in the contribution of women to the rural economy,

rural development of Kano state, and provide an extra income for their families. Women can be trained for small scale enterprises such as micro algae and ornamental fish production to provide additional income for the family. The effectiveness of fisheries and aquaculture should be increased to elevate women's economic liberty and family income. New financial instruments should be developed and promoted to increase the contribution of women to the sector.

## REFERENCES

- Felsing, M. and D. Baticados.(2001). "The Role of Women in Aquaculture in the Philippines: Obstacles and Future Options" in *Gender Concerns in Aquaculture in Southeast Asia*. Edited by Kyoko Kusakabe and Govind Kelkar. Bangkok: Asian Institute of Technology, 2001, vi, 102 p. *Gender Studies Monograph 12*.
- FAO (2004). *The women in Fisheries Sector of Argentina, Uruguay and Southern india*
- FOS (1998): *Poverty Profile for Nigeria. A Statistical Analysis of 1996/97 National Consumer Survey Carried Out by Federal Office of Statistics*
- FAO (2006). *The world state of aquaculture*. Rome, Italy. 162 PP
- Federal Ministry of Agriculture, Abuja, Federal Republic of Nigeria (2007). Official Gazette No. 24 volume 94 published by the Federal Government Printing Press, Lagos, Nigeria.
- Guste Jennifer and Jennifer del Rosario-Malonzo. 2004. IBON Foundation, Inc., Philippines 01 Dec 2004. *Women in Philippine Aquaculture*. Journals: Volume 11 December,2004, 01 Dec 2004. Asian Pacific Research network. [www.aprnet.org](http://www.aprnet.org). *Gender and Aquaculture in Lao PDR*
- Ladu, B.M.B., Sogbesan, A.O. and Tafida, A.A. (2013). *Fisheries and Fishing enterprise in the Hadejia Jama'are Komodugu Yobe Basin, Nigeria*. A Technical report submitted to Hadejia, Jama'are Komodugu Yobe Basin-Trust-Fund. Pp. 32 – 45.
- Luz Lopez-Rodriguez 1993. *The fishers of Talangban: women's roles and gender issues, in community-based coastal resources management CBCRM Case Studies in the Philippines*,<http://www/cbcrm.rc.freesevers.com/casestudies/rodriguez.pdf>
- Mabunay, Ma. Luisa 1995. "Gender Roles in Women's Lives: A Study of Fishing Households in a Central Philippine Community", Ph. D. dissertation, McGill University, Montreal, Canada: June 1995
- Moehl John. 2003. *Gender and aquaculture, Development in the Africa Region* FAO *Aquaculture Newsletter, July, No 29, Espanol*
- Murray Una and Kesone Sayasane 1998. *Socio-economic and gender issues in the UNDP/FAO Provincial Aquaculture Development Project*. THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS Bangkok Fish Market