

**ASSESSMENT OF WOMEN PARTICIPATION IN FISH VALUE CHAIN ACTIVITIES
IN BUGUMA AREA OF RIVERS STATE, NIGERIA**

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ABSTRACT

The study focused on the assessment of women participation in fish value chain in Buguma community, Asari-Toru local Government Area of Rivers state. Data were obtained from 56 women in the study area. Descriptive statistics such as frequency, percentage and mean were used to analyse the data collected from the study. Findings revealed that 44.7% of the women are within the age range of 40-49 years, which makes them still energetic to actively participate in the fish value chain. Majority of the women had formal education with 42.9% with a mean household of size of 6-10 persons. Majority of the respondents are in a cooperative society 71.4%, about 55.3% have a farming experience of 10 years and above. Extension agents visit the study area with about 98.8% respondents. The average annual income gotten by the women was about ₦20,000. Stages involved in the fish value chain in the study area includes capture of fish, handling and sorting, processing, storage, marketing, advertising, distribution. The women are actively involved in each of the chain. It was noted that women have a high level of participation in fish value chain in Buguma community (89.3%). The problems faced by these women includes lack of modern facilities, lack of fund, insufficient wood fuel, lack of harvesting equipment's, technical know-how of modern facilities and poor storage facilities with 98.8% respondents agreeing to it. Despite the participation of the women in fish value chain, they were hardly given attention by the extension agents who visited the study area.

Keywords: women participation, fish value chain

INTRODUCTION

The fisheries sub-sector is a significant source of fish food and livelihood for many people living in the coastal areas, as it supplies animal protein necessary for growth and income for many households in these rural communities (Akinrotimi, Nunkwo, Cliffe, Anyanwu & Orokotan, 2007). According to Akpaniteaku, Weimin, and Xinhua (2005), about 200 million people throughout the world are estimated to depend on fish farming for all or part of their incomes. Hence, fish being a highly perishable substance needs to be transported to the consumer or final user in time (Ali, Gaya & Jampada 2008) to avoid post-harvest spoilage through a coordinated marketing channel (fish value chain). Women have been reported to play a vital role in fishery related activities around the world, especially in the coastal environment, where these activities are classified majorly in three ways; fishing, processing and marketing (Olufayo, 2012). Amadi, Ijeoma, Alex-Hart and Obiajulu (2018), reported that women are involved in fish production, processing and marketing in the coastal areas. Women play crucial role in fish production and this has become more relevant as a way of reducing poverty and enhancing food security.

Worldwide, women in fishing communities have been observed to participate actively in fisheries and also play a part in the maintenance of their families (Nwabeze, Ifejika, Tafida, Ayanda, Erie & Belonwu, 2013). In many parts of the world, women have engaged actively in fish business. In the European countries for instance, women control 39% of the fish industry, making a huge amount of money for themselves and their families (Aquilar, 2002). The crucial engagement of women in natural resources-based occupation such as fisheries in the rural communities has long been accepted but not recognized and not valued as men contribution (Obetta, Ifejika & Nwabeze, 2007).

Fish production is customarily considered as a masculine venture, although, women role in fish related activities is indispensable (Cliffe, Akinrotimi and Ibemere, 2011a). Women role in community development is repeatedly being ignored and relegated to the background. This is as a result of the primordial systems of social setting that is prevalent in many developing countries like Nigeria where women are seen as second class citizens that should not be given any role or whose opinion makes no meaning (Ibrahim, Kigbu & Mohammed, 2011). Tamale (2004) reported that the non-recognition of women contribution in production process is enhanced by uneven allocation of resources. Therefore, lack of access and control over productive process is one of the major factors limiting women participation in economic activities such as coastal fishery practices (Acharya, 2003). Fisheries is an important activity, that is predominant in Buguma community, Rivers State, women participation in fisheries related activities in these area are very crucial and critical to the overall economy of the state, however, several developmental programmes on fish production in the state have always targeted only men while overlooking the important role women play in this sector. Women in rural areas participate actively in the traditional fisheries sub-sector of the economy. They either fully participate or play a complementary role to men. However, despite the important roles women play in agriculture in the country, they are hardly given any attention in the area of training or visitation by extension agents with improved technologies. Financial institutions hardly grant loan facilities to women; and they are hardly reached with improved farm inputs (Damisa, Samdi, & Yohanna, 2007). Ogunela, and Mukhtar, (2009) opined that the critical factors that affect women productivity at the farm level include but are not limited to the factors of production technology, infrastructure and access to support services such as extension services and credits. Adesope, Nwakwasi, Mattew-Njoku and Chikaire (2010) noted that women are involved in various fish value chain activities such as production and processing. Women participation in the fisheries activities are characterized by:

- (i) 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.
- (ii) Women 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.
- (iii) 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.

There is therefore the need to promote and to encourage women folk in this sector, so as to boost supply of food fish and improve the economic welfare of their families (IFAD, 2008; Ekpo, 2013). This study therefore, evaluates the involvement of women in fish value chain in Buguma

community as an important tool for boosting food security and improving the livelihood of the people in this area. The specific objectives of this study are to:

- (i) describe socio-economic characteristics of respondents in Buguma community
- (ii) identify the various stages of fish value chain in the study area
- (iii) determine women's level of participation in the fish value chain in the study area
- (iv) ascertain the constraints to women participation in fish value chain

RESEARCH METHODOLOGY

The study was conducted in Buguma community, Rivers State. It is the headquarters of the Asari-Toru Local Government Area and base of the Kalabari Kingdom, a Nigerian traditional state and consists of 52 family compounds. Each compound has a paramount ruler who oversees the affairs of the compound. The major climatic variable affecting the farmers in Buguma are flood and increase in atmospheric temperature. Asari Toru Local Government Area lies on the geographical coordinates of 4.7456°N latitude & 6.8458°E longitude within the 17 communities, an estimated population of three hundred and fifty thousand (350,000) persons can be identified as inhabiting in the communities in Asari Toru Local Government area. The dominant occupation amongst the people of Asari Toru local Government Area (ASALGA) of Rivers State is fishing.

The population of the study comprises of women involved in fish value chain at Buguma community, Rivers State. In the study area, 56 respondents were randomly selected from the list of the women who participate in fish value chain in Buguma ADP in Buguma community. Each respondent was given a questionnaire and used to elicit information relating to their general personal data, educational level, and year of experience in the occupation, their roles in fishing, processing, storage and marketing of fish. The questionnaires were administered to only female fisher folks of the community. The respondents were exclusively interviewed at fish landing spots, smoking huts, and market squares. Completed questionnaires was collected and analyzed with simple statistical tools such as frequencies and percentages and mean. The main instrument for data collection for this study was a structured questionnaire. Data for the study was collected from a primary source using structured questionnaire and oral interview. Data was also obtained through secondary sources such as journals, internet and textbooks. Data collected were analyzed using descriptive statistics such as frequency, percentage and mean.

RESULTS AND DISCUSSION

Socio economic characteristics of the respondents (women)

Table 1 shows that (3.2%) of respondents are within the age range of 29-39 years, (44.7%) were between the range of 40-49 years, and (21.4%) are between 50-59 years, while (1.8%) of respondents are above 50 years. This implies that the age range of 40-49 years which has the highest percentage and shows that the farmers have enough capacity to involve in the value chain process which includes capture of fish, processing, handling, sorting, marketing and distribution of the fish.

Majority of the farmers had secondary education 24 (42.9%), those with primary education degree constituted 26.8% of the respondents, about 23.2% had adult education and those with non-formal education were about 4(7.1%). This implies that the respondents are educated to secondary level of education, which enables them have the basic knowledge on how to handle farming equipment's which was given to them by the government.

Table 1: Socioeconomic characteristics of respondents

Variables-	Frequency	Percentage
Age(Years)		
29-39 Years	18	32.2
40-49 Years	25	44.7
50-59 Years	12	21.4
Above 50 Years	1	1.8
Educational Level		
Non Formal Edu.	4	7.1
Adult Education	13	23.2
Primary Education	15	26.8
Secondary Edu.	24	42.9
House Hold Size		
1-5 Persons	24	42.9
6-10 Persons	32	57.2
Marital Status		
Single	4	7.1
Married	45	80.4
Widowed	7	12.5
Cooperative Society		
No	16	28.6
Yes	40	71.4
Farming Exp.		
1-10	31	55.3
11-20	16	28.7
21-30	4	7.2
31-40	4	7.1
Above 41	1	1.8
Exten		
No	1	1.8
Yes	55	98.2
Annual Income		
10,000 - 40,000	44	78.7
41,000 - 70,000	8	14.3
71,000 - 100,0000	4	7.2

About 57.2% of the farmers had a household size of 6-10 persons, about 42.9% of the farmers had 1-5 persons in their household size. This implies that majority of farmers have an average size of 6 persons in the house, following the nature of the farming activities, there are enough persons to participate in the farming activities this would help in generating high income and making the work easier for everyone.

Exactly 80.4% of the farmers are married while 12.5% are widowed and 7.1% are single. This implies that a large proportion of the fish farmers surveyed are married this is in line with Ekong (2000), that majority of studies have shown that the respondents involved in agricultural activities are married. About 71.4% of the respondents are involved in a cooperative society and about 28.8% are not involved. This implies that majority of farmers who are involved in this

cooperative society are able to save extra money aside their annual income to support the family. Example of these cooperatives society is market women union cooperative Buguma community. About 55.3% of the fish farmers have 1-10 years farming experience, while 28.7% indicated they had 11-20 years of experience. This implies women involved in fish value chain in Buguma community have a high level of farming experience and also capacity building resources. About 98.8% of the farmers agreed that extension personnel visited Buguma community and while about 1.8% of fish farmers disagreed.

The respondents (78.7%) earn ₦10,000 - ₦40,000 per year. This implies that large proportion of the farmers earn about 10,000-40,000 per year from fish farming, however, low farm income discourages the farmers from putting her best in the work because the farmer may not be able to cater for the needs of the household and also in the case of health challenge as a result of water pollution she cannot be able to afford medical care and also when maintenance is required in the farming equipment there will be nothing to do about it.

Table 2 Distributions of Stages Involved In Fish Value Chain

Items	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed	Mean	Ranking	Remark
Capturing Of Fish	54(96.4)	2(3.6)	0(0)	0(0)	3.961	3 rd	Agreed
Sorting And Handling	54(96.4)	2(3.6)	0(0)	0(0)	3.961	3 rd	Agreed
Processing	55(98.2)	1(1.8)	0(0)	0(0)	3.982	1 st	Agreed
Storage	43(76.8)	2(3.6)	7(12.5)	4(7.1)	3.50	6 th	Agreed
Harvesting	53(96.4)	1(1.8)	1(1.8)	1(1.8)	3.893	5 th	Agreed
Marketing	55(98.2)	1(1.8)	0(0)	0(0)	3.982	1 st	Agreed
Distribution	54(96.4)	2(3.6)	0(0)	0(0)	3.964	2 nd	Agreed

Table 2 shows the mean distribution of the stages involved in fish value chain in Buguma community. The table shows that respondents agreed that capture of fish, sorting/handling, grading and distribution of fish are part of the stages involved in fish value chain in Buguma community(M=3.961). Respondents agreed that processing and, marketing are involved in fish value chain (M=3.982), it was agreed that storage of fish is also included in the stages involved in fish value chain in Buguma community(M=3.50). This implies that the stages of fish discussed in the above table are all practiced in the fish value chain in Buguma community.

Table 3 Distribution Of Women’s Level Of Participation In Fish Value Chain

Items	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed	Mean	Ranking	Remark
Capturing Of Fish	51(91.1)	4(7.1)	1(1.8)	0(0)	3.893	3 rd	Agreed
Sorting Of Fish	54(96.4)	2(3.6)	0(0)	0(0)	3.964	1 st	Agreed
Handling And Grading	52(92.9)	4(7.1)	0(0)	0(0)	3.928	2 nd	Agreed
Storage	43(76.8)	5(8.9)	4(7.1)	4(7.1)	3.553	5 th	Agreed

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Processing	49(87.5)	7(12.5)	0(0)	0(0)	3.875	4 th	Agreed
Marketing	52(92.9)	4(7.1)	0(0)	0(0)	3.928	2 nd	Agreed
Advertising	52(92.9)	4(7.1)	0(0)	0(0)	3.928	2 nd	Agreed
Distribution	53(94.6)	1(1.8)	1(1.8)	1(1.8)	3.893	3 rd	Agreed
Wholesale	51(91.1)	2(3.6)	2(3.6)	1(1.8)	3.839	6 th	Agreed
Retail	40(71.4)	4(7.1)	8(14.3)	4(7.1)	3.428	7 th	Agreed

Table 3 shows the mean distribution of the stages involved by women in fish value chain in Buguma community. The table shows that respondents agreed (M=3.964) to the fact that women are involved in capturing, sorting, handling, processing, marketing, advertising and distribution of fish in Buguma community. It was found that women are involved in the stage of storage in fish value chain in Buguma community (M=3.428). This implies that women are actively involved in the stages of fish value chain in Buguma community.

Table 4 Distribution of Problems Faced By Women In Fish Value Chain

Items	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed	Mean	Ranking	Remark
Lack Of Modern Facilities	27(48.2)	13(23.2)	14(25.0)	1(1.8)	3.938	1st	Agreed
Lack Of Fund And Transportation	36(64.3)	16(28.6)	4(7.1)	0(0)	3.571	2nd	Agreed
Insufficient Wood fuel	31(55.4)	17(30.4)	8(14.3)	0(0)	3.410	4th	Agreed
Lack Of Harvesting Equipments	35(62.5)	12(21.4)	6(10.7)	3(5.4)	3.410	4th	Agreed
Technical Know-How Of Modern Facilities	40(71.4)	8(14.3)	7(12.5)	1(1.8)	3.553	3rd	Agreed
Poor Storage Facilities	34(60.7)	12(21.4)	8(14.3)	2(3.6)	3.393	5th	Agreed

The table above shows the problems faced by the women in fish value chain in Buguma community. Respondents agreed that there is lack of modern facilities ((3.928) or new modern technology for fishing. A mean score of 3.571 represents agreement that there was no fund provided by the community and government. Respondents agreed that there was no sufficient wood fuel for drying of fish (3.410) and harvesting equipment. Majority of the respondents (3.553) agreed that there was no technical know-how of and poor storage facilities to the farmers by the community and government. This implies that majority of the respondent agreed that these

problems discussed are all faced by the women in fish value chain in Buguma community and needs to be attended to by the extension agents and the government.

Table 5: Participation level of women

Participation level	Variables	Frequency	Percentage
Low	32-39	6	10.7
High	40-44	50	89.3

Table 5 shows the level of participation of women in the value chain activities. (10.7%) shows a low participation level while (89.3%) shows high participation. This implies that there is a high level of women participation in fish value chain activities in Buguma community

CONCLUSION

As fisheries activities is important globally especially in Buguma Community, there is an increasing need to look out for women who participate actively in fish value chain. Based on the findings in the study area the following conclusion were drawn. The socio economic characteristics revealed that these women have the energy to participate actively in fish value chain with an age range of 40-49 years; they have some formal education about 42.95 have a secondary education degree. Most of the farmers that participate in these activities are married, the household size ranges from 6-10 persons which is an average level, these explains a high effect when it comes to fish farming activities. Majority of these farmers are involved in a cooperative society which enables them save an extra income for the family annually, the women involved in fish value chain activities have a high percentage in fishing experience about 55.3% have about 10 years farming experience, from the finding it was also observed that extension personnel visited the study area with about 98.2% respondents agreeing to that, finally it was noted that women have a high level of participation in fish value chain in Buguma community with about 89.3%.

RECOMMENDATIONS

The contribution of fisheries sub-sector to employment and income generation in Nigeria especially in Buguma Community cannot be over emphasised. This study shows that fishing activity is really profitable in the study area; however, there are many challenges faced by women fisher folks which reduced their annual income during the period of the findings, these includes water pollution through oil spillage, these affected the fishes around the capture areas and it was difficult in capturing of the fish, it also affected the human health. There was lack of modern facilities such as credit facilities example mobile phones. The following recommendations are made:

- Extension agents should help in providing modern facilities to the farmers through the government and NGOs
- Provision of storage facilities should be made available to the farmers.
- The establishments of cool-room for these women to avoid spoilage of the fish
- The extension agents should cooperate with the farmers during their visit to able to ascertain their real needs rather than their felt need.
- More cooperative society should be established to encourage savings by the women that participate in the fish value chain in Buguma Community.

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