



## Challenges of Women's Involvement in Post Harvest Fishery Activities in Emohua Local Government Area, Rivers State, Nigeria

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### Abstract

This research investigated the challenges of women's involvement in post-harvest fishery activities in Emohua Local Government area of Rivers State. Precisely, the study examined how poor road networks, inadequate processing and storage equipment, insecurity, poor access to low-interest loans/facilities, and insufficient processing and marketing/sales skills hinder women's involvement in fishery activities in the area. Only post-harvest fishery activities (processing and marketing) were considered in this study. Fifteen women involved in post-harvest fishery activities were selected from eight communities in the area using a pure random sampling technique. Both descriptive and inferential analyses were used. A total of one hundred and twenty copies of validated questionnaires were administered, ninety-five copies were retrieved, and seventy-eight copies provided data for the analysis. This gave a response rate of 79.16 percent. The analysis was done using chi-square test statistic. The study showed that poor road networks, inadequate modern processing and storage equipment, insecurity, poor access to low-interest loans/facilities, and insufficient processing and marketing skills were the major challenges in the area. It is concluded that although the venture is highly profitable and has high prospects, there are a lot of challenges confronting women in obtaining optimal performance. It is therefore recommended that women need training, especially in the areas of processing, storage, and marketing/sales of fish. Moreover, the government should strengthen the area's security measures and assist women to obtain low-interest loans/facilities as these will enhance their performance.

**Keywords:** Challenges, Women Involvement, Post-Harvest, Fishery

### Introduction

Fish, as a source of animal protein, holds greater prominence in the daily subsistence diets of coastal rural areas compared to beef and pork (UNICEF, 1991). Economically, fish play a pivotal role, serving not only as food but also providing valuable by-products, disease control measures, and acting as a significant source of income and employment, particularly in developing regions and Low-Income Food-Deficit Countries (LIFDCs). The Food and Agriculture Organization (FAO) reports a notable rise in fish consumption, which has improved global diets by offering diversified and nutritious food options. In 2013, fish contributed approximately 17 percent of the global population's animal protein intake and 6.7 percent of total protein consumed. However, despite their crucial role, fisheries in many countries overlook women's contributions, perpetuating their exclusion from management roles and often isolating them from the very resources upon which they rely (Flarper *et al.*, 2020).

Recognizing the pressing need to address the challenges faced by women in fisheries, it is imperative to assess these issues comprehensively across various levels. Artisanal women fishers, often considered the backbone of aquaculture, merit particular attention in this regard. Contrary to the stereotype, fishers, much like farmers, encompass both genders, with millions of women globally engaged, either paid or unpaid, in the fisheries sector. Fisheries serve as a vital source of sustenance and livelihood for numerous communities worldwide, providing essential protein and income, especially in developing countries (Kolawole *et al.*, 2010). Approximately 200 million people worldwide depend on fish entirely or partially for their livelihoods (De Silva, 2011), with women playing pivotal roles in maintaining households and communities, notably through their involvement in fish-related activities (Onyango and Jentoft, 2011).

Small-scale fisheries, which account for about half of

global fish catches, employ around 90 percent of people directly dependent on capture fisheries, underscoring their significance (FAO, 2012). Notably, women constitute a substantial portion of the workforce in inland fisheries in Asia and are responsible for marketing 60 percent of seafood in West Africa (FAO, 2010). Despite primarily undertaking pre- and post-harvest tasks, women are increasingly participating in the actual fishing process at the artisanal level, reflecting their integral role in the sector. In regions like Africa, women shoulder significant responsibilities, contributing to 80 percent of food security and 90 percent of water security in rural and coastal communities (GWA, 2006).

The collapse of fisheries and the degradation of natural resources not only jeopardize food, health, energy, and water security but also disproportionately affect women and fisherwomen, as highlighted by the United Nations Development Programme (UNDP, 2009). In 2008, nearly 45 million people worldwide were directly engaged in the primary fisheries sector, with an additional 135 million involved in secondary activities, including post-harvest operations. While comprehensive sex-disaggregated data is lacking, and studies suggest that women may constitute up to 30 percent of total fisheries employment. Women's significant contributions are particularly evident at the processing and marketing stages, where they play pivotal roles across all regions, often emerging as important entrepreneurs in fish processing (Kusakabe and Kelker, 2001).

In Nigeria, a significant proportion of fishing communities reside along the Atlantic coast and inland rivers, with artisanal fishing serves as a vital survival strategy for many due to the lack of infrastructure and financial resources (Mabawonku, 1980; Oyatoye, 1982; Kolawole, 2001). Fishery activities encompass not only harvest but also post-harvest operations, including processing, storage, and marketing, wherein women are actively engaged (Olufayo, 2012). However, challenges such as limited access to credit, inadequate transportation networks, and heightened criminal activities impede women's participation in fishery activities (Cliffe and Akinrotimi, 2015).

Despite existing studies on fisheries activities, both harvest and post-harvest, none have specifically addressed the Emohua Local Government Area to date, creating a critical research gap. This study aims to investigate the challenges of women's involvement in post-harvest fishery activities in Emohua Local Government Area, thereby contributing to a more comprehensive understanding of gender dynamics in fisheries.

The aim of this study was to evaluate the challenges of women involvement in post-harvest fishery activities in

Emohua Local Government Area of Rivers State.

Precisely, the specific objectives are to:

- i. determine the socio-economic characteristics of women involved in fishery activities in the study area.
- ii. determine the challenges hindering women involvement in post-harvest fishery activities in Emohua Local Government Area.

## Methodology

The study was carried out in Emohua Local Government Area of Rivers State, Nigeria, situated between latitude 5° and 10°N and longitude 6° and 54°E. This tropical rainforest area experiences eight months of wet and four months of dry seasons, with temperatures ranging from 22°C to 29°C, along with high humidity and rainfall. The primary occupation in the area is farming, supplemented by trading and public service. Emohua Local Government Area covers an area of 831 km<sup>2</sup> (321 sq miles) and has a population of 201,901 as per the 2006 census, comprising fourteen political wards and 48 communities (Ugbomeh *et al.*, 2018). The study population comprised all women involved in post-harvest fishery activities (processing and marketing) in Emohua Local Government Area. A purposive sampling technique was employed to select fifteen women engaged in post-harvest fishing activities from each of the eight communities: Rumuji, Elele-Alimini, Agba-Ndele, Elibrada, Rundele, Rumuewhor, and Rumuodogo, resulting in a total sample size of 120. Pure random sampling was then utilized to select the fifteen women from each community. Data were collected from both primary and secondary sources. Primary data were acquired through questionnaires and oral interviews. The questionnaire contained both structured and unstructured questions. Secondary data was sourced from Emohua Local Government Headquarters and the Agricultural Development Programme. The dependent variable, women's involvement in post-harvest fishery activities, was measured based on their level of participation: full-time, part-time, or occasional. The independent variable, challenges faced, was assessed using a set of criteria: Poor road network/link roads, Inadequate modern processing and storage equipment, Insecurity, Poor access to low-interest loans/facilities, and Inadequate processing, marketing, and sales skills.

Both descriptive and inferential analyses were conducted. Descriptive analysis focused on the frequency distribution of responses to key issues. A five-point Likert scale was employed to assess the magnitude of challenges, ranging from strongly agree (5 pts) to strongly disagree (1 pt). A mean rating was calculated, with a value greater than 3.0 indicating a significant challenge. Further analysis using the chi-square test statistic was performed to determine the significance of these challenges. The decision rule involved comparing the calculated chi-square ( $\chi^2$ ) value to the critical value at 4 degrees of freedom and a significance level of 0.05.

## Results and Discussion

Table 1 presents the socio-economic profile of women

engaged in fishing activities, revealing diverse characteristics essential for understanding their roles in the fisheries sector. Analysis of marital status indicates that a significant portion of the women involved are married (65.38%), followed by those who are single (19.23%), widowed (12.82%), and divorced or separated (2.57%). This distribution reflects the varied life circumstances of the participants, with marriage being the predominant status. Regarding age distribution, the majority fall within the prime working ages of 31–40 years (51.28%), followed by 21–30 years (23.08%), indicating a workforce predominantly composed of women in their productive years. Educational attainment levels demonstrate a notable proportion with secondary education (56.41%), while 30.76% have primary education and 12.83% tertiary education, reflecting a range of educational backgrounds among participants. In terms of involvement, a majority of women engage in fishing activities on a full-time basis (55.12%), indicating a significant dedication of time and effort to this occupation. Part-time engagement is also notable (32.05%), reflecting a balance between fishing activities and other responsibilities. Experience levels vary, with a substantial proportion having 4–7 years of experience (48.72%), indicating a moderate level of expertise among participants. When considering the nature of fishing activities, a significant number of women are primarily involved in marketing (66.67%), emphasizing the crucial role they play in the distribution and sale of fish products. However, a notable portion also engages in both processing and marketing activities (28.21%), highlighting their involvement across multiple stages of the value chain. Regarding the forms of fish products handled, smoked fish dominates (55.13%), followed by frozen (26.92%) and fresh (17.95%) products. This distribution reflects the diversity of fish processing methods employed by women, catering to different consumer preferences and market demands. Overall, the socio-economic profile of women involved in fishing activities underscores their multifaceted roles within the fisheries sector, encompassing aspects of family life, education, employment, and skill specialization. Understanding these dynamics is crucial for developing targeted interventions and policies aimed at enhancing the welfare and empowerment of women in fisheries.

In Table 2, it is evident that a significant portion of women engaged in post-harvest fishing activities perceive poor road networks/link roads as a major challenge. Specifically, 43.58% strongly agree, 32.05% agree, 12.82% are undecided, while 6.41% disagree, and 5.14% strongly disagree with this assessment. Similarly, inadequate modern processing and storage equipment are perceived as significant hurdles in post-harvest fishery activities. Among respondents, 41.02% strongly agree, 29.49% agree, 10.26% are undecided, 12.82% disagree, and 6.41% strongly disagree with this notion. Concerning the perceived insecurity level in the area as a major challenge to their fishery activities, a substantial majority of respondents express concern. Specifically, 60.26% strongly agree, 25.64% agree,

6.41% are undecided, while 6.41% disagree, and 1.28% strongly disagree with this assessment. Moreover, poor access to low-interest loans/facilities emerges as a significant challenge for women in post-harvest fishery activities. Among respondents, 61.54% strongly agree, 28.20% agree, 3.85% are undecided, while 3.85% disagree, and 2.56% strongly disagree with this perspective. Lastly, inadequate sales and marketing skills are also perceived as a major hindrance to post-harvest fishery activities in the area. A notable proportion of respondents express concern, with 55.12% strongly agreeing, 30.78% agreeing, 3.85% undecided, 5.14% disagreeing, and 5.14% strongly disagreeing with this viewpoint.

The results indicate that in post-harvest fishing activities, women in the surveyed area face several significant challenges. Poor road networks or link roads are perceived as a major issue, with a notable proportion of respondents strongly agreeing (43.58%) and agreeing (32.05%) with this assessment. Similarly, inadequate modern processing and storage equipment pose hurdles, with 41.02% strongly agreeing and 29.49% agreeing. The perceived insecurity level also weighs heavily on respondents, as 60.26% strongly agree and 25.64% agree that it is a significant challenge. Access to low-interest loans/facilities is another notable concern, with 61.54% strongly agreeing and 28.20% agreeing. Additionally, inadequate sales and marketing skills are perceived as hindrances, with 55.12% strongly agreeing and 30.78% agreeing. Overall, these findings underscore the multifaceted challenges faced by women engaged in post-harvest fishery activities in the area. This finding is in conformity with the finding of a study conducted by Ogbonnaya, Okpala-Ezennia, Obuakor, & Ikeogu (2020) on the challenges of women involved in fishing activities.

## Conclusion

The research focused on the challenges of women's involvement in post-harvest fishing activities in Emohua Local Government Area in Rivers State. The demand for fish products (fresh, frozen, and smoked) is very high in the area, indicating significant potential for the business. However, poor road networks, inadequate processing and storage equipment, insecurity, poor access to low-interest loans/facilities, and insufficient processing, marketing, and sales skills were identified as the major challenges faced by women engaged in post-harvest fishing activities in the area.

From the findings of this study, it is concluded that there are high prospects for women in post-harvest fishing activities in the area. However, most of the women involved in these activities face challenges related to poor road networks, inadequate processing and storage equipment, insecurity, poor access to low-interest loans/facilities, and insufficient processing and marketing skills. These challenges hinder women's involvement in fishery activities in the area. Based on the findings of this study, there is need for women to acquire more skills through training especially in the areas of processing, storage, and marketing/sales as this

will enable them make more profit and remain competitive. Government should endeavor to strengthen the security measures as this will enhance women involvement in fishery activities. Government should make available low interest credit facilities.

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**Table 1: Socio-Economic Profile of the Respondents, Data Presentation and Analysis**

Variable	Frequency	Percent	Cum. Percent
<b>Marital status</b>			
Single	15	19.23	19.23
Married	51	65.38	84.61
Widower	10	12.82	97.43
Divorced/separated	2	2.57	100
<b>Age Bracket (Years)</b>			
21-30	18	23.08	23.08
31-40	40	51.28	74.36
41-50	12	15.38	89.74
51-60	5	7.69	97.43
61 and above	2	2.57	100
<b>Education qualification</b>			
Primary	24	30.76	30.76
Secondary	44	56.41	87.17
Tertiary	10	12.83	100
<b>Level of involvement</b>			
Full-time	43	55.12	55.12
Part-time	25	32.05	87.17
Occasionally	10	12.83	100
<b>No. of Years' experience</b>			
0-3	8	10.26	10.26
4-7	38	48.72	58.98
8-11	21	26.92	85.90
12-15	11	14.10	100
16 and above	0	-	-
<b>Fishing Activities</b>			
Processing only	4	5.12	5.12
Marketing only	52	66.67	71.79
Process and marketing	22	28.21	100
<b>Forms of fish product</b>			
Fresh	14	17.95	17.95
Smoked	43	55.13	73.08
Frozen	21	26.92	100
Sun-dried	-	-	-

**Field Survey, 2024****Table 2: Frequency distribution of the challenges hindering women involvement in post-harvest fishery activities**

Challenges	Strongly Agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)	Total	Grand mean
Poor road Networks and link roads	34 (43.58%)	25(32.05%)	10 (12.82%)	4 (5.13%)	4 (5.13%)	78	4.03
Inadequate modern processing and storage equipment	32 (41.02%)	23(29.49%)	8 (10.26%)	10(12.82%)	5 (6.41%)	78	3.80
Insecurity level	47 (60.26%)	20(25.64%)	5 (6.41%)	5 (6.41%)	1 (1.28%)	78	4.30
Poor access to interest loan/ facilities	48 (61.54%)	22(28.20%)	3 (3.85%)	3 (3.85%)	2 (2.56%)	78	4.40
Inadequate sales/marketing skills	43 (55.12%)	24(30.78%)	3 (3.85%)	4 (5.13%)	4 (5.13%)	78	4.20

**Field Survey, 2024**