

Roles of Cooperative Society among Fish Farmers in Awka Agricultural Zone of Anambra State, Nigeria

Ikechukwu CC¹, Okeke PA², Akinrotimi OA^{3*}, Ayaobu-Cookey IK⁴, Nwankwo CG⁵ and Okoli CM⁶

^{1,2,5,6}Department of Fisheries and Aquaculture, Faculty of Agriculture, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria

³African Regional Aquaculture Center of the Nigerian Institute for Oceanography and Marine Research, P.M.B 5122, Port Harcourt, Rivers State, Nigeria

⁴Department of Aquaculture, Nigerian Institute for Oceanography and Marine Research, Victoria Island, Lagos State, Nigeria

***Corresponding author:** Akinrotimi OA, African Regional Aquaculture Center of the Nigerian Institute for Oceanography and Marine Research, P.M.B 5122, Port Harcourt, Rivers State, Nigeria.

Received Date: December 04, 2021

Published Date: January 15, 2025

Abstract

The roles of farmer's cooperative societies in aquaculture development in Awka Agricultural zone in Anambra State, Nigeria were investigated. A total of 60 questionnaires were distributed among fish farmers in the study area. The results indicated that most (70.0%) of the respondents were males and were within the age bracket of 36–50 years (46.77%). They were also married (61.67%), with household size of 5–10 (53.33%). The results further revealed that all the respondents had formal education, with 6–10 years of experience in fish farming (45.00%). Furthermore, fish processing (26.67%) and fish culture (25.00%) were the major activities carried out by the cooperative societies. Analysis of the benefits derived from society by the members indicated that the highest (33.33%) and lowest (6.67%) benefits were accessibility to loans/grants and increased financial returns respectively. However, limited finance (33.33%) and ineffective loan policy (25.00%) were the major constraints faced by the cooperative societies in discharge of their duties. This study has shown that cooperative societies play a crucial role in improving the socio-economic status of fish farmers, enhancing their bargaining power, and promoting sustainable agricultural practices. Also, fish farmers should be encouraged to establish fisheries cooperatives. Additionally, awareness on fisheries cooperatives in Awka Agricultural zone should be intensified and non-members should be encouraged to join in order to benefit from the available incentives.

Keywords: Aquaculture; Cooperative Society; Resources, Awka; Fish Farmers

Introduction

In developing countries in which Nigeria is one, agriculture dominates the economy of the nation. It has been established that about 70% of Nigeria population is engaged in agriculture while 90% of Nigeria total food production comes from small farms and 60% of the country population earn their living from these small farms [1]. However, the challenges faced by individual fish farmers are often daunting, making it difficult to achieve their full potential.

This is where cooperative societies step in, embodying the power of collective action. A cooperative society is an organization of people of common economic interest whose aim is to cater for the general well-being of its member [2]. This is done by uniting fish farmers under a common banner, it also creates a platform for shared knowledge, resources, and support. This synergistic approach fosters resilience, innovation, and sustainable growth

within the fish farming community [3]. Cooperative societies have long been recognized as important entities for small-scale farmers, providing numerous benefits such as access to resources, collective marketing, and knowledge sharing [4].

Furthermore, in the context of fish farming, cooperative societies can play a crucial role in improving access to capital for investment in fish farming infrastructure and equipment, as well as facilitating the collective bargaining power of the farmers in the marketing and distribution of their produce [5]. Previous studies have highlighted the potential for cooperative societies to enhance the socio-economic well-being of small-scale fish farmers through improved access to markets, technology, and financial services [6]. Also, cooperative societies play a crucial role in fostering collaboration and collective action among farmers in various agricultural sectors. By pooling resources, knowledge, and expertise, these societies enable farmers to overcome individual limitations and achieve economies of scale [7]. Despite the existence of cooperative societies among fish farmers in Awka Agricultural zone of Anambra State, there is a lack of comprehensive assessment and understanding of their roles in supporting and improving the livelihoods of the fish farmers in the study area. This study aims to address this gap by assessing the roles of cooperative societies in providing access to resources, improving productivity, enhancing marketing opportunities, and promoting social cohesion among fish farmers in the Awka Agricultural zone. It will also identify the challenges faced by these cooperative societies and explore potential strategies to overcome them. By conducting this assessment, the study aims to provide valuable insights and recommendations to policymakers, practitioners, and stakeholders in the fish farming sector to enhance the effectiveness and sustainability of cooperative societies in supporting and empowering fish farmers in Anambra State.

Materials and Methods

The study area

This study was carried out in Awka Agricultural zone of Anambra State, Nigeria. The State is located in the Southeastern region of Nigeria. Awka, the capital of Anambra State, Nigeria, is located between latitudes 6°06' N and 6°16' N and longitudes 7°01' E and 7°10' E. The area lies within the tropical rainforest zone of West Africa with an average humidity of 80%.

Data collection

The data used was obtained through the use of structured questionnaires that were administered to fish farmers, and it constituted the major research instruments for this study. A total of 60 questionnaires were shared and retrieved among fish farmers in the study area.

Method of data analysis

Descriptive statistical methods were used in the analysis of data. Descriptive statistics used include the mean, frequency and percentages. This was used to summarize the socioeconomic and demographic variable of the respondents in table forms.

Results

Benefits of cooperative society

The benefits of identifying with a cooperative society are shown in Table 1. From the results, most of the respondents (33.33%) indicated that cooperative societies increased accessibility to loans/grants, while other respondents indicated that the benefit they derive include protecting the interest of members, training of members, improved culture techniques, distribution of subsidized farm inputs, information dissemination and increased financial returns respectively.

Table 1: Benefits of Belonging to a Cooperative Society (n=60).

Variables	Frequency	Percentage (%)
Increased financial returns	4	6.67
Improved culture techniques	6	10
Distribution of subsidized farm inputs	5	8.33
Information dissemination	5	8.33
Accessibility to loans/grants	20	33.33
Protecting the interest of members	10	16.67
Training of members	10	16.67
Total	60	100

Source: Field Survey (2023)

Socioeconomic characteristics of the respondents in the study area

The socioeconomic characteristics of the respondents are presented in Table 2. The male constituted about 70.0% of the

respondents in the study area, while the remaining 30.0% were females. The age of the respondents indicated that majority of them were within the age bracket 36-50years (46.67%), while only a few were above 65 years (3.33%). The result further indicated that most

of the respondents (61.67%) were married, with household size of 5-10 (53.33%). The educational status of respondents revealed that the majority of them (58.33%) had secondary education, while 40% and 1.67% had tertiary and primary education, respectively. None of the respondents were without formal education. Investigation into

the years of experience and primary occupation of the respondents indicated that most of them (45%) had 6–10 years of experience as fish farmers and majority (48.33%) were also engaged in fish farming as their primary occupation.

Table 2: Socio-Economic Characteristics of Respondents in the Study Area (n=60).

Variables	Frequency	Percentage (%)
Sex		
Male	42	70
Female	18	30
Total	60	100
Age		
15-25yrs	0	0
26-35yrs	21	35
36-50yrs	28	46.67
51-65yrs	9	15
Above 65years	2	3.33
Total	60	100
Marital Status		
Single	18	30
Married	37	61.67
Divorced	5	8.33
Total	60	100
Household Size		
1-4	27	45
5-10	33	53.33
Above 10	1	1.67
Total	60	100
Educational Level		
Primary	11	1.67
Secondary	35	58.33
Tertiary	22	40
None	0	0
Total	60	100
Years of Fish Farming		
1-5	16	26.67
6-10	27	45
11-15	12	20
16 and above	5	8.33
Total	60	100
Primary Occupation		
Trading/Business	20	33.33
Fish farming	29	48.33
Civil service	8	13.33
Retiree	3	5
Total	60	100
Level of Income Generated Annually		

50,000-100,000	11	18.33
101,000-200,000	11	18.33
201,000-500,000	23	38.33
Above 500,000	15	25
Total	60	100

Source: Field Survey (2023)

Membership and level of awareness of cooperative society by respondents

The level of awareness of the existence of cooperative society in the study area is shown in Table 3, and most of the fish farmers (55%) were members of a cooperative society, while others were

not (45%). The results further indicated that majority of these fish farmers were aware of the cooperative society in their locality, with majority (86.67%) aware of the importance of belonging to a cooperative society. Results further showed that majority of the respondents (68.33%) found out about the cooperative society in their locality from other farmers.

Table 3: Membership and Level of Awareness of Cooperative Society by the Respondents in the Study Area (n=60).

Variables	Frequency	Percentage (%)
Membership		
Members	33	55
Non-members	27	45
Total	60	100
Level of Awareness		
Fish farmers who are aware of cooperative society in their locality	38	63.33
Those who aren't	22	36.67
Total	60	100
Importance of Belonging to a Cooperative Society		
Fish farmers who think belonging to a cooperative society is important	52	86.67
Those who don't	8	13.33
Total	60	100
Means of Awareness		
Tv	4	6.67
Social media	10	16.67
Other farmers	41	68.33
Radio	4	6.67
News	1	1.67
Total	60	100

Source: Field Survey (2023)

Level of satisfaction of the respondent's membership of a cooperative society in the study area

The level of satisfaction of cooperative activities by the

members is highlighted in Table 4, and it indicated that majority of the members (63.33%) were satisfied, while 10% were not satisfied and about 6.67% were indifferent.

Table 4: Level of Satisfaction of the Respondents Membership of a Cooperative Society in the Study Area (n=60).

Variables	Frequency	Percentage (%)
Very satisfied	2	3.33
Satisfied	38	63.33
Fairly satisfied	10	16.67
Not satisfied	6	10
Indifferent	4	6.67
Total	60	100

Source: Field Survey (2023)

Constraints faced by cooperative societies in the study area

The constraints faced by the cooperative societies in discharge of their duties are highlighted in Table 5. Ineffective loan policy (25%) was the major constraint indicated by the respondents in

the study area, while mismanagement (18.33%), limited finance (33.33%), lack of trust (8.33%), illiteracy (3.33%), government policy (5%), and attitude of members (6.67%) were the other constraints faced by the cooperative society in discharge of their duties in the study area.

Table 5: Constraints that affect Cooperative Activities in the Study Area (n=60).

Variables	Frequency	Percentage (%)
Ineffective loan policy	15	25
Mismanagement	11	18.33
Limited finance	20	33.33
Lack of trust	5	8.33
Illiteracy	2	3.33
Government policy	3	5
Members attitude	4	6.67
Total	60	100

Source: Field Survey (2023)

Discussion

From the demographic distribution, it is evident that the majority of fish farmers in the Awka Agricultural zone were male (70%) compared to female farmers (30%). This result is in line with that of Ibemenuga, et al. [8] on the impact of cooperative society on fish farming in Anambra State, Nigeria. Furthermore, the age distribution reveals a significant proportion of farmers in the 36-50 years age bracket (46.67%). The marital status and household size data indicate that a significant portion of fish farmers are married (61.67%) and belong to households with 5-10 members (53.33%). This finding is in agreement with Odetola, et al. [9]. According to Olaoye, et al. [10], marriage confers some level of responsibility and commitment on individuals who are married, and this highlights the importance of considering family dynamics and responsibilities in designing cooperative programs that cater to the needs of entire households rather than just individual farmers. Additionally, the literacy levels among the respondents were generally high with majority of the respondents (58.33%) having secondary education.

This underscores the importance of providing tailored educational resources and training programs to accommodate farmers with varying levels of formal education.

The duration of fish farming experience among the surveyed population shows a diverse range of experience levels, with a considerable proportion (45%) of farmers having 6-10 years of experience. This result is in line with that of Ezech, et al. [11] in the analysis of cooperative aids to member's livelihood among fishing communities in Anambra North Agricultural zone of Anambra State, Nigeria. This suggests a mix of seasoned and relatively new farmers within the community, which could influence knowledge-sharing and skill development within the cooperative setting. The primary occupations of farmers provide valuable context for understanding their level of engagement with fish farming as a source of income. The data shows that nearly half of the farmers have fish farming as their primary occupation (48.33%), underscoring the significance of cooperative support in enhancing the livelihoods of those reliant on fish farming for income generation. The income levels generated

by the farmers offer insights into the economic impact of cooperative participation, with a notable proportion of farmers (38.33%) falling within the income bracket of 201,000-500,000. This indicates that cooperative activities may contribute significantly to the financial well-being of members and suggests that further support and resources could potentially boost income levels further.

The data on cooperative membership and sources of awareness reveal that a majority of farmers (55%) are members of cooperatives, with word-of-mouth through other farmers being the most common source of information (68.33%). This underscores the role of peer networks and community influence in promoting cooperative participation and highlights the importance of leveraging existing social connections to enhance cooperative outreach and engagement. One of the most significant contributions of cooperative societies identified in the study was the increased accessibility to loans and grants, which showed a substantial 33.33% improvement. Cooperatives often provide collateral or group guarantees, making it easier for fish farmers to access credit facilities. This finding is in line with that of Akerele, et al. [12] whose study revealed that majority of fish farmers sourced fund through cooperatives. The farmers' level of satisfaction with cooperative activities indicates a generally positive sentiment, with a significant portion expressing satisfaction (63.33%). This result was in line with the findings of Edun, et al. [13]. Understanding the factors contributing to satisfaction or dissatisfaction can provide valuable insights into areas for improvement. In assessment of the constraints faced by the cooperative society, limited finance was observed to be one of the major constraints faced by society. This was reported by Oluwatayo, et al. [14] as one of the major constraints facing most cooperative societies in Nigeria and that without sufficient capital, their day-to-day activities are limited.

Conclusion and Recommendations

This study has revealed numerous insights into the impact and importance of cooperative efforts in enhancing the livelihoods and productivity of fish farmers within the region. In this study, it became evident that cooperative societies play a pivotal role in fostering collaboration, knowledge sharing, resource pooling, and market access for fish farmers, thereby contributing significantly to their economic well-being and overall success. One of the key findings from the project was the significant role that cooperative societies play in facilitating access to essential resources such as finance, input, and equipment. By pooling their resources together, members of these cooperatives can access loans and grants that would otherwise be challenging to obtain as individual farmers. This collective approach not only reduces the financial burden on individual farmers but also enables them to invest in better quality inputs and technologies, ultimately leading to improved productivity and profitability. Fish farmers should be encouraged to establish fisheries cooperatives.

Acknowledgement

None.

Conflict of Interest

No conflict of interest.

References

- Birchall J (2014a) Financing the cooperative business. In J Birchall & A Ketilson (Eds.), Building a better world with our minds and hands: Strategies by cooperatives and other social economy organizations. Geneva: International Labour Organization. Pp. 123-140.
- Abdullahi MM, Adekoya BB, Anyanwu PE (2014) The Role of Co-operative Organization in fish farm development: A case study of Eriwe Fish Farm Village, Ijebu-Ode, Ogun State, Nigeria. The 29th Annual Conference of the Fisheries Society of Nigeria held at Makurdi. Pp. 223-228.
- Ndifon HM, Agube EI, Odok GN (2012) Sustainability of Agricultural Cooperative Societies in Nigeria: The Case of South-South Zone, Nigeria. *Mediterranean J Soc Sci* 3(2): 19-25.
- Narayanasamy Sivasankaran, Palanisamy Saravanan, Punam Prasad, Manoharan Kannadhasan (2019) Does corporate governance influence the working capital management of firms: evidence from India. *International Journal of Corporate Governance* 10(1): 42-80.
- Birchall J (2013) Leadership and governance in successful co-operatives. In J Birchall & A Ketilson (Eds.), Resilience of the cooperative business model in times of crisis Geneva: International Labour Organization. Pp. 123-140.
- Ondiba HA, Matsui K (2019) Social attributes and factors influencing entrepreneurial behaviors among rural women in Kakamega County, Kenya. *Journal of Global Entrepreneurship Research* 9: 1-10.
- Adegbite DA, Ogunbode CA (2015) The role of cooperative societies in financing small-scale fish farming in Ogun State, Nigeria. *Journal of Agricultural Extension* 19(1): 1-11.
- Ibemenuga KN, Orazulike CF (2021) Impact of cooperative society on fish farming in Anambra state, Nigeria. *Bioscience Discovery* 12(1): 18-21.
- Odetola SK, Awoyemi TT, Ajjola S (2015) Impact of cooperative society on fish farming commercialization in Lagos State, Nigeria. *Afr J Agric Res* 10: 1982-8.
- Olaoye OJ, Ashley-dejo SS, Adelaja OAB, Ikililu A (2014) Perception of small-scale fish farmers on agricultural extension services delivery towards aquaculture development in Oyo State, Nigeria. *International Journal of Biology and Biological Sciences* 3(3): 031-037.
- Ezeh FO, Onugu CU, Nduka OH, Ngoka IE, Ekwere GE (2019) Cooperative Aids to Members Livelihood among Fishing Communities in Anambra North Agricultural Zone of Anambra State, Nigeria. *Journal of Applied Agricultural Economics and Policy Analysis* 2(1): 31-39.
- Akerele EO, Ilori AR, Fadipe MO, Oluwasanya OP, Ayodele JO (2019) Effects of cooperative loan on small scale fish farming business in Oyo State, Nigeria. *Kampala International University* 5(3): 7-117.
- Edun OM, Akinrotimi OA, Eshiett IM (2018) Roles of Cooperative Societies in Aquaculture Development: A Case Study of Some Local Government Areas in Rivers State, Nigeria. *Agriculture Extension Journal* 14(2): 51-71.
- Oluwatayo AB, Sekumade O, Adesoji SA (2008) Resource Use Efficiency of Maize farmers in Rural Nigeria: Evidence from Ekiti State, Nigeria. *World J Agric Sci* 4(1): 91-99.