ASSESSMENT OF ARTISANAL FISHERY ACTIVITIES AMONG FISHERFOLK IN LAGOS STATE, NIGERIA

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ABSTRACT
Fish is a veritable source of high quality protein, essential vitamins and minerals that are crucial to metabolic activities in human system. Artisanal sector is faced by so many problems such as use of crude fishing gears, inadequate credit facilities and high rate of poverty among fisherfolk. Therefore, the study assessed artisanal fishery activities among fisher folks in Lagos State, Nigeria. A well structured interview schedule was conducted to elicit information from 200 artisanal fisherfolk using multistage sampling techniques. Findings from the study showed most of the artisanal fishermen were youth, male, egun ethnic group and few with formal education. Consequently, the artisanal fisherfolk are highly skilled and experience. Furthermore, majority revealed that friends, family, fishing festivals and colleagues were the major source of accessing information on artisanal fishing. However, the major constraints hindering artisanal fishing activities include inadequate extension contact, low fish catch and inaccessibility to credit facilities. The study recommend that extension arm of the government should deploy extension personnel to train the fisherfolk the use of improved techniques or methods so as to increase the skills of the fisherfolk. This will enhance fish catch by the fisherfolk. In addition, Federal Government should come out with stable policy guideline to enable commercial banks disburse loans to the artisanal fisherfolk at a very low interest rate, in order to help them expand their production capacity.
Key word: Artisanal, Fisherfolk, Fishery, Protein, Kwara State.

INTRODUCTION
Globally, fish has been acknowledged as an important source of animal protein. The use of fish as a source of protein to aid growth and development of both human and livestock cannot be over emphasized. According to Food and Agricultural Organizations (FAO, 2018), the nutritional and health benefits from fish have been recognized for its superior nutritional profiles with high content of amino acids. Otubusin, (2011) stated that fish production in Nigeria comes from three sources; artisanal, aquaculture and industrial fishing. Artisanal fisheries are fish catching operation usually carried out with canoes and simple fishing gears. The artisanal fishery is characterized by use of low technology fishing gears with fish catch range of 5 nautical miles of seashore (Adedokun *et al*., 2006). Fish distribution network is very poor, local market oriented: low revenue generation but with easy availability of fresh fish to the rural communities and consumers along coastal and inland towns and cities. However, the demand for fish in Nigeria is estimated to about 3.61 million metric tonnes while domestic fish production was projected at 1.21 million metric tonnes (FDF, 2018). The balance of the demand was met through importation costing about $1.2 billion yearly (Godwin, 2019). Consequently, the huge import bill on frozen fish by the Federal Government of Nigeria which amounted to $700m in year 2016 alone calls for urgent attention in the area of artisanal and aquaculture. In spite of the vast potential of abundant fisheries resources Olaoye et al. (2014) described Nigeria as the biggest importer of fish in Africa. The low domestic fish production is attributed to use of crude fishing gears and equipment accompanied with low catch. In addition, post-harvest losses, lack of adequate information on fish practices and credit facilities to fishermen in this enterprise that may encourage them to adopt new innovations is not easy to come (Ajao, 2006). In addition, as a demonstration of Lagos State potential in fish production in 2003, they launched the Homestead Fish Production Programme (HFPP) at its agricultural show. This was meant to be a major landmark in creating awareness about the need to increase fish production in a bid to partly actualize the global goal of food security programme. In same vein, other past efforts of the Federal Government to boost fish production include Sustainable Fisheries Livelihood Programme in 2002 and establishment of Bank of Agriculture in 1973. Despite these interventions, the artisanal sector has remained underdeveloped because most of the interventions do not focus on artisanal fishery. Till date, the fisherfolk are still living in abject poverty and fish production is on decline yearly. It is

desirable to consider the significant of artisanal fishery to local fish production in Nigeria. This study aimed to assess artisanal fishery activities among fisherfolk in Lagos State, Nigeria. The specific objectives were to describe the socio-economic characteristics of artisanal fisherfolk; identify the sources of information to fisherfolk on artisanal fishing and investigate the constraints hindering artisanal fishing activities in Lagos State, Nigeria.

Study Area

The study was conducted in Epe, Badagry and Lagos-Mainland Local Government Area of Lagos State. Lagos state is endowed with the vast coastline and other body of water including brackish and fresh water that are conducive for the artisanal fishing. Survey shows that the state harbors 30,000 actively engaged fish farmers with manual gears and craft types (Lagos State Gazette, 2009). The state has comparative advantage over most other states in fish production and could provide a great deal of fish demand of the whole country if resources are adequately employed (Kusemiju, 2004).

Sampling Procedure and Sample Size

The population under study comprises of all the artisanal in the three LGAs. A well structured interview schedule was used to elicit information from 200 respondents who were selected through multistage sampling procedure from the three communities in each of the three LGAs. The selection of the communities was purposive based on the concentration of men and women involvement in fishing activities. Thus, nine communities were selected for the study. The final stage was random and proportionate selection of 10% of the identified fishermen using list of fisherfolk obtained from the records of minutes of the fisherfolk association group in each community namely Asakpo (200), Ogorogbo (150), Gbethromey (250), Erepoto (300), Oluwo (150), Eyin-Osa (250), Makoko (300), Iwaya (250) and Ago-Egun (150). Thus 20, 15, 25, 30, 15, 25, 30, 25 and 15 fisherfolk were selected from the communities.

Analytical Techniques

Data analysis was carried out using descriptive such as frequency counts, percentages, mean and ranking.

RESULTS AND DISCUSSION

Socio economic characteristic of respondents

Table 1 summarizes the socio-economic characteristics of the respondents. Findings from the study showed that 37.5% of the respondents were aged between 31-40 years. The mean age of the artisanal fisherfolk is 35.4 years. This implies that fisherfolk were relatively young and should be able to imbibe new ideas and innovations (improved technology) to enhance increased productivity in the fishing enterprise since younger people are more mentally alert and have greater flexibility in accepting new ideas in dealing with risks and uncertainties (Sanni, 2009). Similarly, male (96.5%) dominates artisanal fishing venture in the Lagos State. More than half (55.5%) had no formal education. This implied that artisanal fishing operation in the Lagos State was performed mostly by semi-illiterate fisherfolk. This finding is similar to Olaoye *et al*. (2012) who opined that most farmers in Nigeria are illiterate or semi-literates who dropped out from formal school system. With respect to ethnicity, many (75.0%) of the fisher folks were predominantly Egun ethnic group. The implication is that Nigerians living in the coastal part of the country depend on fishing as one of the major means of livelihood. Therefore, efforts to improve on the performance of the enterprise will have positive effect on the people living in the coastal part of the country.

Table 1: Socio-economic characteristic of the respondents

Socio-economic characteristic	Frequency	Percentages	Mean
Age			
21-30	67	33.5	35.4 years
31-40	75	37.5	
41-50	44	22.0	
51-60	14	7.0	
Gender			
Male	193	96.5	
Female	7	3.5	
Level of education			
No formal education	111	55.5	7 years
Primary	81	40.5	
Secondary	4	2.0	
Tertiary	4	2.0	
Fishing experience			
1-5	5	2.5	13.8 years
6-10	66	33.0	
11-15	70	35.0	
Above 15	59	29.5	
Ethnicity			
Yoruba	6	3.0	
Igbo	4	2.0	
Ilaje	25	12.5	
Ijaw	15	7.5	
Egun	150	75.0	

Sources of information to fisherfolk on artisanal fishing

From Table 2, items were ranked accordingly, from the most effective to the least source of information on artisanal fishing. These include family and friend (2.9), colleagues (2.9) market places (2.8), fishing festivals (2.01) radio (1.98) extension worker (1.95) public libraries (1.09).

This report reveals that newspaper, mobile phones and television were rarely used as channel of accessing information on artisanal fishing. This was understandable as more than half (55.5%) of the respondents had no formal education. Thus, friends, family and colleagues constituted the major source of information by fisherfolk on artisanal fishing. This was in agreement with the findings of Tologbonse *et al.* (2006) that rural households depend on friends and neighbors for agricultural information.

Table 2: Sources of information to fisherfolk on artisanal fishing

Sources of information	Mean	Rank
Family and friends	2.95	1st
Colleagues	2.93	2nd
Market places	2.86	3rd
Fishing festivals	2.01	4th
Radio	1.98	5th
Extension workers	1.95	6th
Television	1.45	7th
Mobile phones	1.19	8th
Newspapers	1.17	9th
Public libraries	1.09	10th

Constraints hindering artisanal fishing activities

Table 3 shows the constraints hindering artisanal fishing activities along with the mean score. These include; inadequate agricultural extension contact (2.8), Inadequate credit facilities (2.7), low fish catch (2.6), Infestation by hyacinth (2.5), inadequate storage facilities (2.3), climatic variability (2.2), high cost of gears and net (2.0) low income generated from sale of fish (2.7) and high cost of hired labour (1.3). High cost of hired labour may be considered minor problem because majority of the artisanal fisherfolk rely solely on family labour for fish marketing and processing. In addition, the findings agreed with Akankali and Jamabo (2011) who reported that fisheries yield from artisanal sources is on the decline in Nigeria due to overexploitation which will in turn lead to low fish catch. This will on the long run, affect the income of the artisanal fisherfolk. Similarly, the findings also agreed with Omorinkoba *et al.* (2011) who highlighted the problems associated with fish handling in artisanal fisheries of Kainji Lake to include inadequate extension contact, high cost of fishing inputs, menace of water hyacinth, inadequate fishing inputs, low fish catch, lack of credit facilities and revolving loan scheme for the fisherfolk.

Table 3: Constraints hindering artisanal fishing activities

Constraints	Mean	Rank
Inadequate extension contact	2.84	1st
Inadequate credit facilities	2.78	2nd
Low fish catch	2.60	3rd
Infestation by hyacinth	2.58	4th
Inadequate storage	2.30	5th
Climatic variability	2.22	6th
High cost of gears and net	2.06	7th
Low income generated from sales of fish	2.06	8th
Inadequate processing facilities	1.56	9th
Menace of water lords and stumps	1.46	10th
Distance to market outlets	1.40	12th
Poor boat and canoe maintenance	1.44	11th
Scarcity of gears and nets	1.36	13th
High cost of hired labour	1.32	14th

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study the artisanal fishermen were youth, male, Egun ethnic group and few with formal education. Consequently, the artisanal fisherfolk are highly skilled and experience. Majority revealed that friends, family, fishing festivals and colleagues were the major source of accessing information on artisanal fishing. However, the major constraints hindering artisanal fishing activities include inadequate extension contact, low fish catch and inaccessibility to credit facilities. The study, therefore, suggest that federal government should come out with stable policy guideline to enable commercial banks disburse loans to the artisanal fisherfolk at a very low interest rate, in order to help them expand their production capacity. Furthermore, radio and television programs should be aired in local languages and dedicated to fisherfolk on relevant information needed to boost income and improvement of living standard of the fisherfolk.

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