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SURVEY OF CATFISH PRODUCTION IN ISEYIN TOWN, ISEYIN LOCAL GOVERNMENT AREA, OYO STATE, NIGERIA

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Abstract

Aquaculture production will continue to increase with increasing demand for fish. The increasing demand of fish as a protein source put stress on supply from capture fishery thereby causing declination in wild stock. Aquaculture to an extent continues the bridge the gap existing between the demand and supply. This study therefore examined catfish production in Iseyin metropolis. All 30 fish farmers in the study area were evaluated for socio-economic characteristics, inputs employed and the challenges encountered in catfish production. The study with the aid of a well structured questionnaire highlights relevant information from respondents. Data were analyzed and tested with descriptive statistics (frequency and percentage) and mean. The study revealed that 96% of the respondents were at their active age, 73.33% were male. The mean year of experience in fish farming in the study area was 7.5 years. This shows that aquaculture remains a viable business in the study area. Majority of the respondents stocking rate was between 1000-2000 fingerlings and low amount are spent on other farm input. The low amount incurred on input in the study area indicated that most fish farm in the study area operate at small scale level. The study also reveals that fish farmers encountered some constraints such as high cost of input, predation, lack of market, lack of capital among others. Catfish production in the study is successfully practiced; however, there is need for improvement capital availability and assess to extension officer and cost of inputs to encourage production.

Keywords: - Aquaculture, Survey, Catfish.

Introduction

Catfish production is important to the Nigerian economy. It serves as a source of income, reduces the rate of unemployment and increases the Gross Domestic Product (Emokaro, 2010). In most countries it fetches a higher price than Tilapia as it can be sold live at market as they have a market value two or three times that of tilapia (Emokaro, 2010). Aquaculture provides improved protein to the populace because of its high biological value in terms of high protein retention in the body, higher protein assimilation as compared to other protein sources, low cholesterol content and one of the softest sources of animal protein. Aquaculture production has rapidly increased from 25,720 million tons in 2000 to 56,355 million tons in 2005 to 85,087 million tons in 2007 (Abdullah, 2007). This trend of production continues to increase as demand for fish increases. Nigeria posses a land mass of 923,766 km² with 112,085 km² very suitable for fish farming while 696,314 km² have moderately sufficient water which might require extra effort for functionality (FMARD, 2008). Many species of fish are farm produced all over the world, but catfish is taking the lead in Nigeria because of its easy culturability, hardiness and consumer acceptability (Vanguard, 2009).

Fish production in Nigeria is mainly achieved through two sources; capture and culture fishery (FAO, 2010). Aquaculture fishery refers to fish reared in a confined place and harvested for consumption and sales (Oyinbo and Rekwot, 2013). These two sources of production provide employment, thereby employing about 1,190,497 people as fishermen and 13,627 as fish farmers (FAO, 2017), excluding the indirect jobs provided by the value

chain. Notwithstanding, the number of fishermen could not satisfy the domestic demand of fish. FAO (2018), indicated a continuous decline of fish population in the wild, this could lead to loss of endemic species, fish food scarcity, hunger without the intervention of aquaculture practices to bridge the deficit that occur in the fish supply from the wild (FAO, 2007). Although aquaculture is not new, however, it is developing rapidly to reduce the stress on wild fishery as a major source of fishery resources to close the gap between demand and supply of fish and reduce threats to food security. Therefore, it is necessary to study the catfish production activities. This study aims to provide information on the socio-economic characteristics of catfish farmers, assess the inputs employed in catfish farming, and assess the problems militating against catfish farmers in the study area.

Materials and Methods

Iseyin town is the fourth largest city in Oyo, after Ibadan, Ogbomosho and Oyo, It is approximately 100 kilometres north of Ibadan. The city was estimated to have a population of 236,000 which jumped to 302,990 in 2011.

Data was obtained through the administration of structure questionnaires which were used to collect information from the literate farmers and verbal interview to collect information from illiterate farmers. Information such as socio-economic characteristics, input employed by respondents were collected. A list of registered catfish farmers was collected from four different areas in the local government. The entire population was used since the number of fish farmers in the region were only 30 (majority of the fish farms have closed business due to the economic meltdown experienced in the country).

The data collected on the socio-economic characteristics of the respondents was analysed using descriptive statistics: percentages, frequency and mean.

Results and Discussions

The result revealed that very few of the respondents (3.33%) are within the age 61 and above years, this indicated that majority of the respondents (84.44%) were within their active ages (less than 40 to 50 years). This age bracket is majorly considered as productive and economically active (Baruwa *et al.* 2012, Ashley-Dejo *et al.*, 2017) which portends better future for catfish production. Majority of the respondents 73.33% were males while the rest of the respondents 26.67% were females, this implied that men were more actively involved in aquaculture this may be due to the inability of most women to own their personal land for farming (Olaoye, 2010). However, female are more involved in processing and marketing. The percentage of the married was 46.67% and 46.67% of the respondents was single. This indicated that the married among the respondents were people of responsibility who engage in one activities or the other to be able to cater for the family needs. Response on religion showed that 56.67% of the respondents were Christian while 43.33% practiced Islam. This showed that the two major religions practiced in the study area do not see catfish production as taboo. The educational level of a farmer does not only improve the productivity but also increases the ability to understand and evaluate new innovations, 46.67% and 46.66% of the respondents underwent secondary education and tertiary education respectively. Olagunju *et al.* (2007) noted that high level of education among fish farmers usually have positive effect on their acceptance of new technology. The mean year of experience of the respondents is 7.5 years. This implied that catfish production is not new in the study area. The result from the study showed that 56.67% of the respondents are <6 in the household and 43.33% of the respondents are within the range of 6-10 in their household, this implied that their relatively large household size may likely enhance labour supply on the farm.

Table 1: Socio-economic characteristics of the respondents

Age	Frequency (f)	Percentage (%)	Cumulative
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<41	11	36.67	36.67
41-50	14	46.67	84.44
51-60	4	13.33	96.67
61 and above	1	3.33	100.0
Sex			
Male	22	73.33	73.33
Female	8	26.67	100.00
Marital Status			
Single	14	46.67	46.67
Married	14	46.67	93.33
Divorced	2	6.67	100.0
Religion			
Christianity	17	56.67	56.67
Islam	13	43.33	100.00
Educational level			
Primary	2	6.67	6.67
Secondary	14	46.67	53.33
Tertiary	14	46.66	100.00
Years of Experience			
<6	9	30.00	30.00
6-10	17	56.67	86.67
11-15	3	10.00	96.67
Above 15 years	1	3.33	100.00
Household size			
<6	17	56.67	56.67
6-10	13	43.33	100.00

Majority of the respondents 93.33% use earthen pond, this showed that pond was preferred in the study area due to availability of primary productivity as a supplementary food to the fish thereby reducing the cost of production and close access to rivers. Fertilization of pond is necessary to improve productivity. Fertilization practice in the study showed that farmers are aware of the importance of fertilization in fish production; however, majority of the respondents 56.67% used inorganic fertilizer while 30% used organic fertilizer.

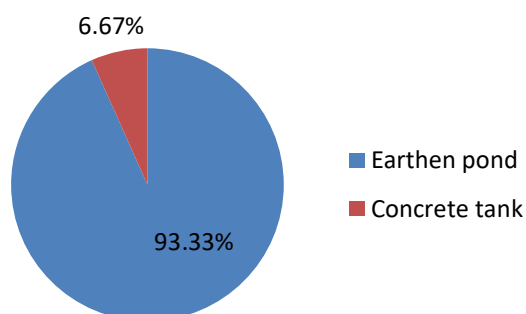


Figure 1: Type Culture facility

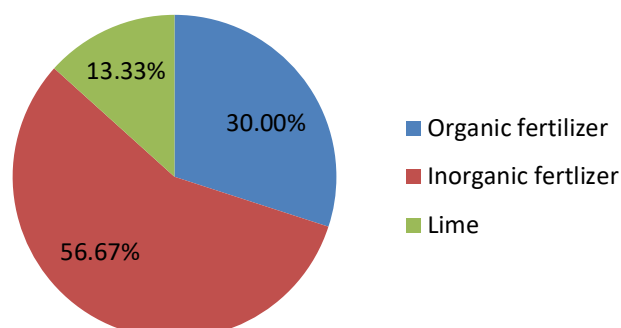


Figure 2: Type of fertilizer used

Based on the number of harvest in a year, 26.67% of the respondents harvested twice in a year, 46.67% harvested three times in a year, and 26.67% harvested four times in a year. The results on input used showed that an average amount of ₦138,900 was spent on tank/pond construction, ₦11,733 on fishing net, ₦2,175 on shovel and ₦4,495

on bowls. The highest percentage of the respondents' (46.67%) stocking number is between 1000-2000 fingerlings at a time. With respect to amount incurred on the input, it showed that majority of the fish farmers in the study area practiced small scale farming. This agreed with Ogunmefun and Achike (2017) who stated that considerable large populations of the fish farmers in Lagos state are small scale commercial farmers.

Table 3: Farm input assessment of respondents

Number of Harvest in a year	Frequency (f)	Percentage (%)
Twice	8	26.67
Thrice	14	46.67
Quarterly	8	26.67
Amount on Tank/Pond Construction		
10,000 – 50,000	4	13.33
51,000 – 100,000	1	3.33
101,000 – 200,000	23	76.67
201,000 – 300,000	2	6.67
Fishing net		
1000 – 5000	1	1
6000 – 10,000	3	3
11,000 – 15,000	26	26
Shovels		
< 1000	3	10.00
1000 – 3000	23	76.67
3,500 – 5000	4	13.33
Bowls		
1000 – 2,500	3	10.00
5,100 – 7,500	10	33.33
7,600 – 10,000	1	3.33

The constraints highlighted from this study include; high cost of input (53.33%), lack of market (43.33%), inadequate extension officers visit (60%), Flooding (36.67%), Predators (26.67%), Capital (43.33%) and Storage of water in dry season (30%).

Conclusion and Recommendation

From the study, it could be concluded that catfish farming in the study area is practiced in a small scale level of production, production in the study area is successfully practised but there is need for improvement on capital availability, cost of input and access to extension officers for catfish farmers in order to improve their production.

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