FSN-FM 0011

SOCIAL STRUCTURE OF FISH FARMERS IN OSUN STATE, SOUTH-WEST NIGERIA

[1*]OLASUNKANMI, J. B., [2]OMITOYIN, B. O. AND M. O. IPINMOROTI[1]

[1]Department of Animal Science and Fisheries, College of Agriculture, Osun State University, Ejigbo Campus.

[2]Department of Wildlife and Fisheries Management, Faculty of Agriculture and Forestry, University of Ibadan

This paper was prepared for presentation at the 25th Annual International Conference and Exhibition in Administrative Staff College of Nigeria (ASCON), Topo-Badagry, Lagos, Nigeria, 25th – 29th October, 2010.

ABSTRACT

A survey of seventy-two selected fish farms in Osun State South-West Nigeria was carried out to determine the social status of the fish farmers. Structured questionnaires were used to collect information on age, educational background, marital status, mode of operation and type of culture embarked upon by the farmers among others. Data were analyzed using descriptive statistics. Results showed that most fish farmers (58.3%) in the state were male and were aged between 31-50 years old.91.7% of fish farmers were married and 95.8% had formal education. 63.9% adopted polyculture system. Tilapia and catfish were the two main species being cultured and 75% produced table fish while only 5.6% were involved in fish breeding. 83.3% practised fish farming on part-time basis and 66.7% were involved in non-agricultural occupation to supplement their production. 86.1% owned land either by inheritance or purchase, 8.3% operated on leased land and 5.6% rented the land upon which they operated. 75% of the respondents got their capital from personal savings, 11.1% from cooperatives, and only 5.6% had access to bank loans. 52.8% were regularly visited by extension agents 16.7% were occasionally visited while 30.5% were seldom visited. Only 27.8% belonged to farmers' association.

Keywords: Social status, fish farming, Osun state

INTRODUCTION

Aquaculture, the fastest growing food-producing sector, now accounts for nearly 50 percent of the world's food fish (FAO, 2007). The need to provide reliable information on social structures of fish farmers is a key issue for the responsible management of aquaculture. Aquaculture is both a way of life and an economic activity. Successful development of aquaculture requires not only appropriate natural environmental conditions and the availability of workable technical methods but also receptive and supportive socio-economic conditions (Tisdell, 1993a). The development of aquaculture in developing countries is however faced with some constraints like aging and poor training of aqua-farmers. Many aqua-farmers are unable to modernize their farming or adopt new technologies that can improve the efficiency of their farm operations. Low educational standards are serious hindrance to progress. Innovations are difficult to implement and are often met with scepticism. Lack of education is also a barrier for participation in political decisions that in turn might pave way for technological and economic progress.

This paper examines the social structures of fish farmers in Osun State as an index of aquaculture development in the area with a view to recommend ways of improving aqua- cultural practices.

MATERIALS AND METHODS
The Study area

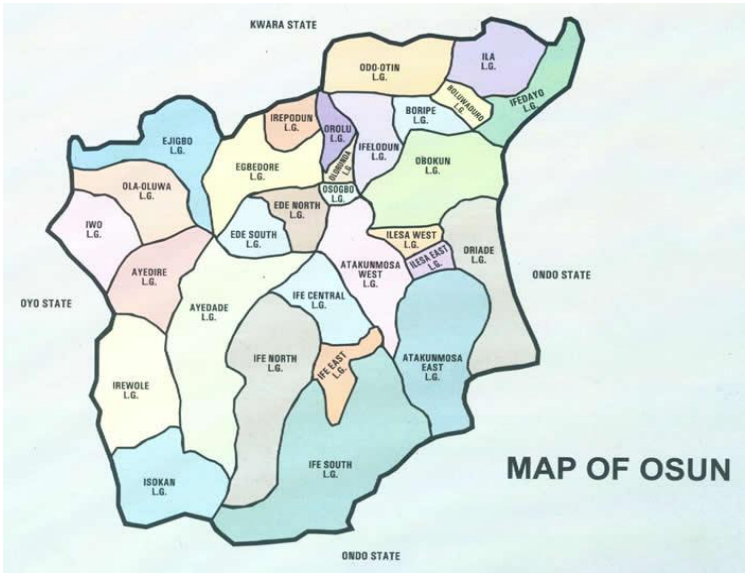

Figure 1 showing the map of Osun State, Nigeria.

Osun State is one of the land-locked states of the Federal Republic of Nigeria. It covers an estimated area of 8,062 square kilometres. The State runs an agrarian economy with a vast majority of the populace taking to farming. It is limited to freshwater fisheries (Macmillan, 1992). Pond fish culture in the area dated back to the time of the colonial masters (Biya, 1982). Osun state ,according to the state Department of fisheries is divided into six fisheries zones with a total of over one hundred fish farms. Seventy two fish farms were randomly selected from the six fisheries zones of the state. Structured questionnaire were administered to the farmers and data collected were analyzed using descriptive statistics such as means and percentages. Secondary data were also collected from Osun State's Ministry of Agriculture and Natural Resources.

RESULTS AND DISCUSSION

Information gathered from the Ministry of Agriculture and Natural Resources showed that Ede zone had the highest number of fish farms (55) while Ife zone had the lowest (5)(Table 1). Ilesa and Ikirun had the second highest number (30 each). Iwo followed with 22 fish farms. This result revealed that there is a wide spread awareness on aquaculture practice in the state which is in line with the observation of Tobor (1990) who observed that there has been increasing awareness of fish farming as a lucrative business in Nigeria. Table 2 shows the socio-economic characteristics of fish farmers in Osun State. The result shows that about 61.1% of the farmers were within the ages 31-50 years and with a mean age of 40 years. This finding agrees with the work of Fakoya and Daramola (2008) who reported that the mean age of fish farmers in Ogun State of Nigeria was 42.9 and that of El-Naggar *et al* (2010) who found out that the average age of fish farmers in Egypt was 43 years. Yunusa (1999) also observed that the age bracket 31-50years are usually innovative, motivated and adaptive individuals. The implication of this is that, most of these farmers are still in their active age and therefore, have the tendency to be more productivity in fish farming in the study area. The gender composition showed that only 8.3% were women.

Table 1: Fisheries Zones in Osun State

Zone	No of Fish farms	No. of LGA
Iwo	22	7
Ife	5	4
Ilesa	38	6
Osogbo	12	4
Ikirun	30	5
Ede	55	4

This shows that only few women were involved in fish farming in the state. There is the need for extension services that will encourage more women to be involved in fish farming so that similar mistake made in Chibote, Zambia where, according to Mbozi, (1991), fish farming was seen as an activity for male youth will not occur in the state. This could be by way of organizing skill trainings in aquaculture for them as observed by Pillay (1977) that successful aquaculture calls for higher personal attention and specific levels of skills. More so, Werby (2001) affirmed that women are often motivated than men to adopt new technologies that provide nutritional benefit such as fish farming. Their participation and involvement in aquaculture practice will go a long way in increasing their access to good and cheap protein source as well as generating extra income. Information on the marital status in the study area showed that 92.7% of the farmers were married, this may suggest that family labour were employed in fish farming in the state. The mode of operation of the farmers indicated that 83.3% of fish farmers operated on part time basis and only 33.3% were involved in other agricultural operations while 66.7% were engaged in non agricultural operations. This is a good indication for fish farming in the area because if the people can invest their spare time culturing fish, the business will soon become an household practice and more fish will be produced. This will also lead to reduction in protein malnutrition and youth unemployment. Fish farmers in Osun State were well educated with over 52% having tertiary education. According to FAO (2004), when farmers are sufficiently educated to read and understand loan contracts and conditions of loan and repayment schedules, they are able to make use of institutional credit facilities and comply with application and documentation procedures. Fakoya and Darmola 2008) further observed that when farmers are sufficiently educated, the education will enhance their innovation when given adequate extension services. The observation in the current study therefore points towards positive innovation in fish farming in Osun State.

Table 2: Socio-economic Characteristics of Fish farmers

	Range/Classification	Frequency	Percent (%)	Cumulative percentage
	Below 20	0	0	0
	21-30	8	11.1	11.1
	31-40	26	38.9	50.0
Age	41-50	16	22.2	72.2
	51-60	14	16.7	88.9
	Above 60	8	11.1	100.0
	Total	72	100	
Sex	Male	66	91.7	91.7
	Female	6	8.3	100
	Total	72	100	
	Non-formal	3	4.2	4.2
	Primary	6	8.3	12.5
Education	Secondary	25	34.7	47.2
	Tertiary	38	52.8	100
	Total	72	100	
	Single	2	2.8	2.8
Marital status	Married	70	97.2	100
	Total	72	100	
Mode of	Full time	12	16.7	16.7
Operation	Part time	60	83.3	100
	Total	72	100	
Other	Agriculture	24	33.3	33.3
occupational	Non-agriculture	48	66.7	100
Practice	Total	72	100	
	Production/fattening	54	75	75
Type of culture	Breeding	4	5.6	80.6
	Fattening & Breeding	14	19.4	100
	Total		100	
Culture	Monoculture	26	38.1	36.1
System	Polyculture	46	63.9	100
Employed	Total	72	100	
	Inherited	24	33.3	33.3
	Leased	6	8.3	41.6
Method of land ownership	Purchased	38	52.8	94.4
	Rented	4	5.6	100
	Total	72	100	
No of ponds	1-2	42	58.3	58.3
	3-4	6	8.3	66.6
	5-6	24	24	99.9
	Total	72	100	
Species of fish cultured	Catfish	12	16.7	16.7
	Tilapia	14	19.4	36.1

	Mix (Catfish and Tilapia)	26	36.1	100
	Total	72	100	
Determinant of choice of species	Availability	14	19.4	19.4
	Demand	29	40.3	59.7
	Acceptability	23	31.9	91.6
	Persinal interest	3	4.2	95.8
	Combination of availability and demand	3	4.2	100.0
	Total	72	100	
Fingerlings source	Government and its agents	2	2.8	2.8
	Private	8	11.1	13.9
	Both	58	80.6	94.5
	Self	4	5.5	100
	Total	72	100	
Source of capital	Personal savings	54	75	75
	Relatives and friends	4	5.5	80.5
	Cooperative society	8	11.1	91.6
	Bank loan	4	5.6	97.2
	Loans from individuals	2	2.8	100
	Total	72	100	
Membership of farmers' asso	Yes	20	27.8	27.8
	No	52	72.2	100
	Total	72	100	
Experience in fish	Less than 5 years	18	52.8	52.8
	5-10 years	26	36.1	61.1
	More than 10 years	28	38.9	100
	Total	72	100	

REFERENCES

Biya, P. D. (1982) Farming of Freshwater Organisms in Oyo State of Nigeria: Practice and Prospect. A post Graduate Diploma Project, University of Ibadan

El-Naggar, G., Nasr-All, A. and Kareem, R. O. (2010) Economic Analysis of Fish Farming in Behera Governorate of Egypt. Assessed online on 8th May, 2010

Fakoya, E. O. and Daramola, b. G. (2008) Socio-economic Factors Influencing Farmer's Participation in integrated Fish Farming in Ogun State. Nigerian Journal of Rural Sociology 8(1). Pp 9-17

Federal Office of Statistics (1999) Poverty and Agriculutral Sectorbin Nigeria: Poverty incidence of Farmers by Region .Federal Office of Stastics, Abuja, Nigeria.

Lee, C. S. (1977) Constraints and Government Intervention for he Development of Aquaculture in Developing Countries: In Aquaculure Economic and Management.Vol. 1 No 1. Blackwell Science Ltd. Macmillan Press Ltd (1992) Osun State: The

State of the Living Spring. Macmillan Nig. Publishers, Ltd.

Pillay, T. V. R. (1977) Economic and Social Dimension of Aquaculture Mangement. Vol. No1. pp 3-11. Blackwell Science Ltd.

Tisdell, C.A.(1993a) Socio-Economic Considerations in Aquaculture Development. International Symposium of Socio-Economics of Aquaculture. Keeling, Taiwan. 14-17 December, 1993

Tobor J. G. (1990) The Fishing industry in Nigeria Status and potential for self sufficiency in fish production. *NIOMR Tech. Paper (54)*

Werby, E. (2001) Socio-cultural Considerations when introducing a new integrated Agriculture-Aquaculture Technology. In FAO Fisheries Technical 468. FAO, Rome. pp 3-8.

Yunusa M. B. (1999) Not Far Alone: A study of rural livelihood in a middle-belt of Nigeria. DARE/ASC Working Paper. pp 38-39