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APPRAISING THREE (3) DECADES OF AQUACULTURAL DEVELOPMENT IN IMO STATE

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ABSTRACT

A survey was carried out to appraise the level of aquacultural development in the last 30 years in Imo State, South eastern, Nigeria. The study was conducted by the use of questionnaires and visits to fish farms in all the three senatorial zones of the State namely; Okigwe, Orlu and Owerri. Data collected revealed that 79.49% of the farms were owned by individuals while values of 12.82%, 5.13% and 2.56% represents government, community and cooperative ownership respectively. However, 17.95% of ponds were established between 1978-1988 while 46.15% represents fish ponds established between years 1998-2008. Earthen ponds were commonest with pond areas varying between 400-10,000m².

INTRODUCTION

The total demand for fish in Nigeria was estimated to be 1.90million tonnes in 1985 (Mabawonku, 1986) while the fish supply in same year was estimated at 0.3million tonnes leaving a deficit of over 1.5 million tonnes to be filled through fish importation (Akolisa and Okonji, 2005). Okpanefe (1982) predicted a wide gap between fish demand and supply by the year 2000 of

about 2.05million tonnes due mainly to ever – increasing human population without corresponding increase in supply. Deep (1995) reported that the world is facing a fishers crises of global proportions since the world's seventeen main fishing grounds are being fished at or above their limits, indicating that 70% of the world's fish stock are now regarded as fully exploited, over-exploited, depleted or recovering from exploitation. Thus, if a man should continue to eat fish, a new approach is needed, hence the slogan of teaching a man how to fish should now change to teaching him how to produce fish by urgently developing over a million hectares of potential aquacultural land for this noble project. (Dada 1975). This report will give a guide or score-card in appraising the role of stake-holders in aquacultural development in Imo State in the last 3 decades.

MATERIALS AND METHODS

This study was carried out by use of questionnaires in a stratified random design, each senatorial zone of the state becoming a stratum namely Owerri, Orlu and Okigwe. Sixty fish framers were given questionnaires designed to identify prevalent farm types, location, production systems including marketing and associated constraints; while fifty of them returned completed questionnaire. Data on registered farmers/farms were obtained from the Ministry of Agriculture and Natural Resources, Owerri. Farmers who returned completed questionnaires were consequently visited to acquaint closely management practices and constraints. Each farm was visited twice at four (4)

weeks interval. The survey lasted between June – September , 2008

RESULTS

Response from the respondents were analyzed in percentages and presented on tables (1-8). Observations were made and inferences drawn from the data.

TABLE 1: TYPES OF FISH FARM OWNERSHIP IN THE THREE SENATORIAL ZONES OF IMO STATE.

OWNERSHIPS	OWERRI	ORLU	OKIGWE	TOTAL	PERCENTAGE
Government	2	2	1	5	12.82%
Individual	18	8	5	31	79.49%
Cooperative	1	-	-	1	2.56%
Community	1	1	-	2	5.13%
TOTAL	22	11	6	39	100%

TABLE 2: YEAR OF ESTABLISHMENT.

YEARS OF ESTABLISHMENT	OWERRI	ORLU	OKIGWE	TOTAL	%
1978 – 1988	5	1	1	7	17.95
1989 – 1998	7	4	3	14	35.90
1999 - 2008	10	6	2	18	46.15
TOTAL	22	11	6	39	100%

TABLE 3: NUMBER OF PONDS PER RESPONDENT

NO OF PONDS PER FARMER	OWERRI	ORLU	OKIGWE	TOTAL	%
1 - 2	10	6	3	19	48.72
3 - 5	8	4	2	14	35.90
6 and above	4	1	1	6	15.38
TOTAL	22	11	6	39	100%

TABLE 4: SOURCES OF WATER SUPPLY.

Water supply	OWERRI	ORLU	OKIGWE	TOTAL	%
From underground (Earthen ponds)	5	3	3	11	28.21
Nearby stream	3	5	2	10	25.64
Tap/ borehole	14	3	1	18	46.15
TOTAL	22	11	6	39	100

TABLE 5: SIZE OF FISH PONDS.

SIZES OF PONDS (M²)	OWERRI	ORLU	OKIGWE	TOTAL	%
400 – 10,000	17	8	3	28	71.80
10,000 – 250,000	4	2	2	8	20.51
250,000 above	1	1	1	3	7.69
TOTAL	22	11	6	39	100

TABLE 6: SOME IDENTIFIED ENVIRONMENTAL PROBLEMS

HYOPTHESIS	OBTAINABLE SCORE	SCORES OBTAINED	PERCENTAGE
a. Seasonal flooding of ponds.	100	55	55
b. Seasonal drying of ponds	100	59	59
c. Pollution of ponds	100	29	29

TABLE 7: CONSTRAINTS OF FISH POND MANAGEMENT IN IMO STATE

HYPOTHESIS	OBTAINABLE SCORE	% OBTAINED	SCORE
a. Fingerlings not expensive/difficult to procure	100	36	
b. Fish feed easy to obtain	100	32	
c. Fish farming requires much training.	100	60	
d. Government patronage to farmers for input and loan adequate.	100	28	
e. Fish marketing is difficult	100	18	
f. Fresh fish storage is difficult	100	81	
g. Disease outbreak is a very serious problems	100	35	

TABLE 8: PROSPECTS OF FISH FARMING IN IMO STATE

HYPOTHESIS	OBTAINABLE SCORE	% OBTAINED	SCORE
a. Fish farming lucrative	100	84	
b. Ready market for farmed fish	100	81	
c. With more training /extensions , farmers can produce more fish	100	79	
d. There is high prospect for fish farming in Imo State.	100	80	

DISCUSSION

Results from this survey reveals that about 79.49% of fish ponds are owned by individuals while government has about 12.82%, however, there was upward trend in number of ponds establish between 1998 and 2008 as recorded in tables 1 and 2.

In terms of number per farmer, 48.72% of fish farmers owned between 1-2 ponds. This shows that the 82 registered fish farmers in the State have about 328 fish ponds, though, the official record of the Fishery Division, Imo State Ministry of Agriculture and Natural Resources (MANR) put the total number of fish farms, at 300 (MANR,1997). Nevertheless, size of fish ponds vary

between 400 -10,000m², this also confirm that fish farming is still at subsistence level in the State.

Major environmental constraints of seasonal flooding in rainy season is attributed to the geographical location of the state (Rainforest) and altitude of the areas where these ponds were established, especially Okigwe and Orlu zones having low altitude. However, pond management problems of acute shortage of fish feed at economic prices and fish seed procurement revealed low patronage of inputs by the government despite high market for farmed fish. Recent increase in fish farm establishment in the millennium and consequent increase in supply of fresh fish in the state may be due to socio-economic influence of salary/wage increment by government coupled with decline in animal protein supply from livestock especially poultry due to the disease outbreak of bird flu. Increase in the consumer social preference for “point and kill” catfish in hotels and eateries have also encouraged farmers to cultivate catfish in the State. With adequate awareness and training, fish farming can bridge the gap of inadequate animal protein requirement intake of the populace, particularly, the rural dwellers that continue to suffer malnutrition due to abject poverty. This will also provide employment opportunities with positive multiplier effect on the social vices by our youths that now engage in robbery and kidnapping among other crimes in Nigeria. Local participation by Local Government Agriculture department will also be of tremendous effort towards achieving the

goal of improving the nutrition of the populace.

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