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Problems and prospects of fish farming in Kwara State, Nigeria

Chioma G. Achionye-Nzeh and A. O. Ajayi

Department of Biological Sciences, University of Ilorin, Ilorin, Nigeria.

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ABSTRACT: A study of the problems and prospects of fish farming was conducted in Kwara State. Questionnaires were used to collect data from Fish farmers, Traders and Civil Servants. The response showed that the major constraints to fish farming were lack of funds to procure land, water supply to farmers, unstable prices of feeds and fingerlings and poor management of the ponds.

Fish farming has many prospects which include: enhancing the income of the farmer, nutritionally. Fish which is an animal protein source is produced to improve the diet of the people and fish farming provides employment opportunities for the populace.

Fish production from fish culture can be improved by improving the level of pond management and government is employed to support fish farming because of the obvious gains to the populace.

Key Words: Fish farming, Kwara State, Nigeria.

Introduction

Rearing of fishes in natural environment like lakes, river, streams, pens, cages and ponds and feeding the fishes so that they grow and attain table size in a short period is the main objective of fish culture. This practice is alien to Africa, it originated from China and was introduced by the Europeans to Nigeria. It could be intensive, semi-intensive or extensive (Charkroff, 1976). Fish farming has many advantages among them are: fish is readily available than to catch from a river or stream, choice fish are grown and fed extra to make them grow better for markets and the number taken is controlled (Charkroff, 1976). The success of a fish pond depends on good management technique and planning.

In Nigeria, fish farming has remained at infancy with the extensive inland water mass estimated at about 12.5 million hectares which includes rivers and streams while natural lakes, reservoirs and artificial ponds estimated at 11.5 millions hectares (Ita, 1990) lie under utilized.

The practice of fish cultivation in Kwara State is at subsistence level by private individual and a few at commercial level. The decline in the catch from the oceans had made it impossible for capture fisheries to make the desired impact in reducing the gap between fish demand and supply. It is therefore imperative to substitute capture fisheries for a more civilized husbandry which is fish farming (Bryant *et al.*, 1980).

The objectives of this study were to ascertain whether research findings are made available to fish farmers, to investigate pond management technique and factors limiting people from embracing fish farming.

Materials and Methods

Data were collected from fish farmers in Kwara State using questionnaire (attached). A total of 140 questionnaires were administered, 125 questionnaires were returned giving 89.2%. The questionnaires were also given to Civil Servants and traders to know the choice area of investment. The information obtained, from the questionnaires were analyzed using descriptive statistical methods and simple percentage method.

Results

The results showed that traders (14%), farmers (44%), civil servants (21%) and businessmen (21.6%) responded to questions. The age groups involved in fish farming were 41-50 (34%) followed by age group 31-40 (30%) while age group 51-60 (21%), 44% showed much interest in fish farming while 56% showed little interest in fish farming. 36% were interested in large scale animal husbandry while 63% were interested in small scale husbandry. 58% preferred rearing other animals like pigs, goat, guinea pig while 41% preferred fish farming. 40% have land for fish farming while 59% had no land for fish farming. Results indicated that on accessibility to water for fish farming, 66% had no access to stable water source.

About 90% of the fish farmer indicated that they obtain their fingerling from Nursery hatcheries while wild sources contributed 6%. The farmers made use of both artificial and natural feeds. Artificial feed contributed 10%. About 76% of the farmers have access to research findings while 24% had no access to research finding.

Discussion

The age group involved in fish farming showed that it is only people who have worked for sometime and have saved money or have collateral to keep with money lending agents that are involved in fish farming. It indicates that because pond construction is capital intensive young school leavers cannot afford to go into the business. The result also indicated a higher preference for other types of animal husbandry like pigs, goat and cattle because they felt they will have higher profit margin and keeping these animals is not as risky as rearing fish.

Land for the construction of the pond was a major problem as 59% had no land. Government can acquire land and sell at a cheaper rate to interested individuals. Source of water was also a major problem. 66% had no access to stable water source. They depended on rainfall to fill the pond sometimes water is bought. This will likely increase the final cost of the fish.

Fingerlings were procured from hatcheries and a few were collected from the wild. This will tend to increase the cost of production because breeding of fishes requires a lot of expertise.

It also implies that fry will not be available throughout the year, most ponds may be under stocked and will result in low yields from the ponds.

The farmers utilized both artificial and natural feeds and 76% of the farmers have access to research findings. This is commendable because we have some natural diets which can enhance growth example maggot (Atteh and Olugbenla, 1993; Achionye-Nzeh *et al.*, 2002). Most materials required to compound artificial feeds are also readily available. Most farmers did not feed to specific body weight and some fed once daily. The use of fertilizers NPK – Sodium, Phosphorus potassium applied to increase yield of pond since these are nutrients required by phytoplankton will increase the production of phytoplankton which

will in turn increase Zooplankton production and eventually lead to increase in production of plankton available to the fish.

It is recommended that loans be made available to committed fish farmers to encourage them to go into large scale fish production, other poor management practices can be checked with extension workers who will give information on monitoring of water quality and feeding regime. Update courses which are presently organized by fisheries division should be given publicity in order to improve attendance.

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QUESTIONNAIRE ON FISH FARMING

This questionnaire is being administered for a research project titled "Problems and Prospect of fish culture or farming in Kwara State.

All information supplied will be treated confidentially please.

SECTION A: GENERAL INFORMATION

1. Name of respondents:
2. Address of respondent:
3. Occupation of respondent:
4. Sex:
5. Marital Status:
6. Age range: 10-20 years () 21-30years () 31-40 years () 41-50 years ()
7. Educational qualification:.....
8. Family size:

SECTION B: CHOICE OF AREA OF INVESTMENT

1. Have you heard about fish farming? Yes () No ()
2. If your answer to question 1 is yes, is it much or little
3. Do you have any interest in fish farming? Yes () No ()
4. Do you have money to invest in animal husbandry? Yes () No ()
5. If your answer to question 4 is yes, is it on large scale or small scale
6. if you have money, will you invest on animal husbandry or fish farming?
7. Which of these, do you think is more expensive? Poultry or fish farming
8. If you have personal savings or co-operative loan or agricultural loan, would you prefer fish farming to poultry? Yes () No ()
9. Are you aware that fish is the cheapest source of protein to meat? Yes () No ()
10. Are you aware that fish farming is cheaper to poultry ? Yes () No ()
11. Do you have a land that you can use for fish farming? Yes () No ()
12. Is there any stable sources of water supply in the area of your choice for fish farming? Yes () No ()
13. Do you know of any feeds or fish meal used in fish farming? Yes () No ()
14. Are you aware that fish culture or farming can bring you income or profit Yes () No ()
15. Are you aware that fish farming can provide employment opportunity? Yes () No ()

SECTION C: IF YOU HAVE INVESTED IN FISH FARMING

1. Where do you normally get your fingerlings? Is it from the nursery or wild? Or suggest if there is other means.
2. Do you culture fish throughout the year or season.
3. Give reasons for your answer in question 2.
4. How much knowledge of feeding technique have you acquired?
5. Are you linked with any research findings on improving fish growth? Yes () No ()
If yes, how did you come about them?
If no, suggest how the information can get to you.
6. How do you harvest your fish?