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A Study on Problems of Pond Fish Culture in Bhopal district, (M.P.), INDIA

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ABSTRACT: In the present study purposively selected fourteen water bodies of the Bhopal district, the research work is based on the data collection from owner of fish ponds and workers; on the standard format of questionnaire and structured interviews. Present study highlights the main problem of fish farmers, which are faced during fish culture in Bhopal district, which discuses in the paper.

Keywords: Fish culture, pond management, water pollution.

INTRODUCTION

Fish is a rich and cheap source of animal protein and its culture is an efficient protein food production system from aquatic environment. Production of fish in a given body of water such as a pond, lake or reservoirs using scientific method of feeding, breeding etc. so as to enhance the output is called fish culture. The main role of fish culture is its contribution in improving the nutritional standards of the people. Fish culture also helps in utilizing water and land resources (Abbas *et al.,* 2010 and Sarker *et al.,* 2014).

Scientific fish culture involves stocking and growing two or more compatible and complementary fish species like, Indian major carps and exotic carps in a water body like pond to maximize the fish production by fullest utilization of all available niches in the pond ecosystem (Goswami *et al.,* 2010; Akankali *et al.,* 2011). Fish culture practices include all activities from pre-stocking operations to harvesting of fish through human efforts. The cultural practices can be broadly classified as pre-stocking, stocking and post-socking practices. Main objective of the study is that, analysis the problem, which is faced by fish farmers of the study area during fish culture and affected the fish production.

MATERIAL AND METHODS

All the data and information was collected through a structured questionnaire, observation and interview methods. Data collection was done through secondary sources and direct from the field visits. The field study was conducted in fourteen water bodies, which are situated in two blocks Phanda and Berasia of Bhopal district, they are Kalyanpur Pond, Manikhedi Pond, Intkhedi Pond, Rodiya Pond, Bagroda Pond, Bakaniya Pond, Khedi Pond, Kaliasote reservoir, Garetia Pond, Hathaikheda Pond, Upper Lake, Lower Lake, Shahpura Lake and Piplani Lake.

RESULT AND DISCUSSION

During the study period it was noticed that, the fish farmers of the study area faced different types of problems regarding fish culture. The major constraints affecting the spread and improvement of pond fish culture in the study areas of Bhopal district are lack of technical knowledge of scientific fish culture practices, non - availability of good quality fish seeds, multiple use of water bodies like irrigation, bathing &washing, non-maintenance of water bodies, cost of fish feed, fish disease, poaching, water pollution, scarcity of water, encroachment problem, lack of organized fish market, unhygienic condition of fish markets and mutual dispute (Fig. 1). A major requirement is the technical knowledge of scientific fish culture practices. In the study, it was found that mostly of fish farmers has no technical knowledge about fish culture practices that's the reason they stocked too small size of fish seeds of different species of carps without maintaining right proportion. They could not procure quality fish seed. Non-availability of standard size fish seed is one of the biggest problems for pond fish culture and sometimes it is mixed with undesirable species. The study area is relatively good with respect to the availability of fish seed as there are two governments and two privates fish farm (situated in Bhopal) to meet demand of the area but the availability of standard size fish seed is still a major problems.

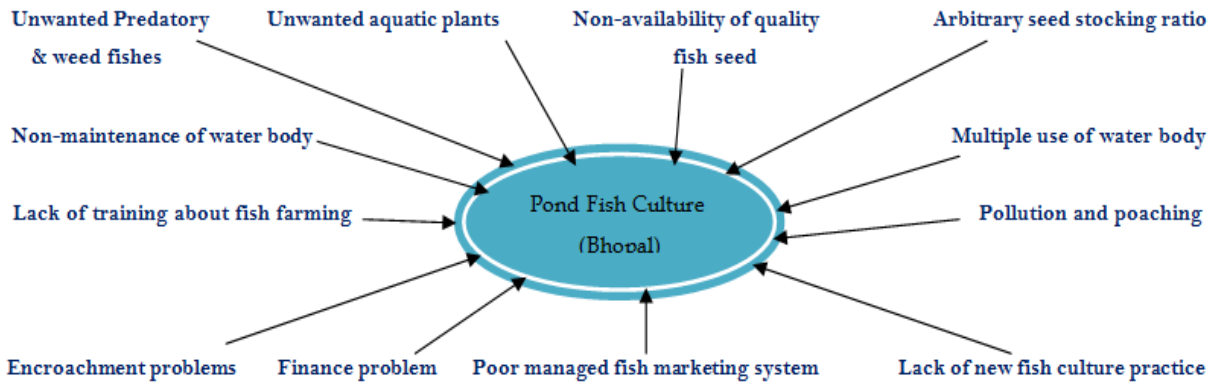

Fig. 1. Constraints of pond fish culture of the study areas of Bhopal district.

In the study areas fish farmers brought the fish seed small in size and it is difficult for the fish farmers to identify the desirable fish species. Some fish farmers identified the fish seed species on the basis of colour and body structure, but they don't check all the bags of fish seed. They only check some bags of fish seeds approximately 1-10 bags and busy their general conversation. On the other hand the bigger size fish seed is rather costly to buy.

Fish pond requires considerable investment firstly, during the pond preparation before stocking of fish seed and secondly, for purchase of various inputs of fish feed and fertilizers. It was observed that a big amount is needed for fish feed purchasing. So, the fish farmers don't follow the strictly proper quantity of fish feed and maximum fish farmers avoid supplementary feed.

Mostly fish farmers are engaged in other business and fish culture is a side business for fish farmers. So they are not interested in regular monitoring of water body. It is also seen that some society members are absent during fish catching. It shows the lack of awareness. Poaching may be result of lack of awareness.

Besides that arbitrary stocking of fish seeds, over & under stocking of fish seeds, stocking at small size fish seeds and catching fish at small size and incomplete harvesting are some of the important factors which affected the fish production. Untreated sewage and laundry detergents coming from household drainage and chemical fertilizers and pesticides from agriculture fields are washed down into fishery ponds prove to be harmful to fishes and indirectly affected the fish production. A similar study conducted in pond fish production through people's participation in rural Bangladesh by Chowdhury *et al.*, (2001) and identified several major problems in fish pond culture like multiple use of pond water, lack of technical knowledge and lack of capital etc.

Das *et al.*, (2008) highlighted the various problems such as poaching, scarcity of water, pond management and lack of knowledge about fish culture practices. According to Kudi *et al.*, (2008) a vast majority of fish farmers indicated that, they were faced the problem of finance, good fish market, disease and water supply, during fish farming. Similar findings are reported by Chughtai *et al.*, (2012). Olasunkanmi, (2012) reported that the most important problem identified in the Osun state, South- Western, Nigeria is cost of feed. Similar observations noted in the present study.

CONCLUSION

Present study concluded that the fish farmers of the study area of Bhopal district faced many problems, which occurs during fish culture practices. There are many problems that affected the fish production in the study area. Lack of technical knowledge about fish farming and lack of interest & awareness of fish farmers are most important problems that directly or indirectly affected fish growth rate and production.

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