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AN OVERVIEW ON SOME ASPECTS OF ECOLOGY OF CERTAIN FISH POND OF DARBHANGA IN RELATION TO POPULATION, FLOODS AND SEASONAL VARIATIONS WITH UNIQUE CONNECTION WITH KOSI RIVER

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ABSTRACT

Sustainable agriculture requires sustainable aquaculture or sustainable production at a minimum environmental impact level. This is only possible if the ecological and economical values are applied carefully to aquaculture. Most fishery resources in the world are actually closed to being over-fished due to the fact that harvesters tend to avoid exploitation.A declined fisheries pattern has been observed worldwide due to water contamination, exploitation and other anthropogenic disruptions, and so on. Therefore, these factors for sustainable fishing production need to be controlled or controlled urgently.

KEYWORDS: *Physico Chemical, Ecology, Aquaculture.*

INTRODUCTION

Water is one of the world's most essential elements and spans three quarters of the surface of the earth. Owing to exploitation, population growth and pollution, freshwater has become a scarce asset. The fresh water reservoirs that affect the water and alter its physiochemical content and are unable to manufacture fish are continuously being filled with industrial effluents, domestic waste and municipal waste.A pool is classified as a natural body of water or a man-made one. Water quality means the water aspect that needs to be available for optimal aquatic organisms to grow.

However according Murugan et al. (1998), and Dadhich and sec. (1999), zooplankton is an essential tool to understand water contamination (Ahmad, 1996; Contreras et al.; 2009). This zooplancton is an important bio-indicator.Several research studies on the environmental condition of freshwater bodies have been conducted in various parts of India (Gulati and Schultz, 1980; Rana, 1991; Singh and Islam, 2002; Smitha et al., 2007). Smitha et al. (2007) have been very scarce in environmental studies on freshwater species in southern Bihar (Haniffa and Pandian,1980).

The aquaculture of aquatic animals and plants is a regulated cultivation and harvesting. In order to achieve a greater control of marine species than is typically possible by default, marine culture experts manipulate certain components of the environment. Teaching built on the best farmland has the highest natural productivity.In ponds constructed on lands which are not suitable for agriculture, high production is also possible from aquaculture. The conservation of natural resources, particularly water and soil, can be contributed by aquaculture. The hazards of the downstream flooding can be minimised with water levels maintained in water drains and an erosive force controlled by sudden runoff. The pools hold soil humidity nearby, protecting vegetation and wildlife.Even a small pond may make a significant contribution to earning income or to cutting family food expenses. In rural areas, aquaculture offers fresh fish. Large rural poor communities live in isolated areas where they are to be made accessible with necessary fish consumption

through transport or market facilities.Factors such as physical conditions, cropping plants, available nutrient supplies, species culture and producers' ability to balance all factors under profitable packages are the basic requirements of aquaculture production. The expansion of production in aquaculture has significant repercussions for working relations, rural poverty and class development.Aquaculture requires access to capital at initial and operational costs, and thus has a much greater entry barrier than catch fishing in fishing. Russed et al. (2013) found that small households that embrace fish farming are mostly start-up capitalists, creating equity concerns. However, considering the difficulties, aquaculture has great potential for rural development in favour of poor people (Demessie., S. 2003).

FISHERIES IN BIHAR

In 1990-91 Bihar produced 159.93 thousand tonnes of fish, with 1995-96 produced 239,58 thousand tonnes of fish. It fell to 222,16,000 tonnes in 2000-01 but rose to 279,53,000 tonnes in 2005-06. Bihar was now split into Bihar and Jharkhand in two parts. Bihar has suffered from some fish production sources because of this division.The Jharkhand region has been pushed by a large number of medium reservoirs and large reservoirs. Jharkhand also has a large number of ponds and tanks of various sizes that remain with the state of Jharkhand. With regard to fish production, Bihar has a lot to do with this.But the system of the River Basin remained in Bihar. Bihar is indeed a state locked on land. It has massive fresh water and water supplies. There are primarily two kinds of capital, i.e. culture and grab. Bihar develops fishing and also catches the fish that are born in the river system and runs through the rivers. The biggest growth opportunity lies in fish cultivation.

North Bihar is currently regarded as a region vulnerable to flooding as many rivers float in the vicinity. The word prone, however, is not a proper word. The word is vulnerable and doesn't include daily visits and an environment that is sensitive to something, so that anything can sometimes be visited and not sometimes visited.A region vulnerable to an earthquake is one in which an earthquake occurs more often. Yet every year and every time it will not be clear. The same applies to the vulnerable region of cyclone. It can not be called a flood-prone region in this context in North Bihar. Flood is a frequent visitor every year. The flood therefore sweeps every year through north Bihar.Further severity or virulence or flood violence may vary from time to year. Flood will definitely come and will ruin the land.

KOSI RIVER SYSTEM

The system of rivers Kosi consists of many smaller rivers-Bagmati, Burhi Gandak, Tilinga, Dhemura, Balan, Kamla, Jibachh and countless other shrubs and rivurlets, Ox-bow-lakes, Chaurs, Wetlnds and swamps, all used to grow various kinds of aquatic crops and irrigation.

Fishing is very profitable in all of these centres for most of the year. As far as the flood-prone areas in Kosi river bassin are concerned, there are 7 in North Bihara, one in Ganga and 7 in Central Bihar out of fifteen river bassins in Bihar. The north Bihar river basins are known primarily for their Kosi river basin which is most vulnerable to flooding (10.80 Lakh halt is a river that has been snowfed and thus permanent. Bihar's catchment area is distributed in many districts of the Agro-Climate Area North Bihar plains (Sub-zone I) and North-Eastern plains (Sub-Zone II). The population in the Kosi River Basin is approximately 85 lakhs, 85% of which make up an estimated 11 in agriculture, devastated by repeated floods.However, the frequency of floods in this region has a specific benefit of potential fishing areas in the form of flood plains called "chaurs" which are estimated in an area of approximately 2 lakh hectares in Northern Bihar (1991).The area thus possesses several potential fisheries but is almost halted by the government's non-promotional exercises.

Fluxes are frequent, repeated and continuous yearly tourists in the Kosi river basin. The flood damage was massive, and all crops washed away between 1953 and 888 2003. Houses have been collapsing. Public service disappeared. Bihar is mostly agricultural and agricultural devastation caused by floods. The consequence is that there is nothing people have to consume.

The key purposes of the analysis are:

1. To examine the opportunities for creation of fisheries in areas of water logging and the effectiveness of fisheries reservoirs.
2. Assess reorganisation, enhancement and reinforcement of infrastructural components for training and extension programmes, so that fishermen can boost their socio-economic status and provide rural people who live in the flood-prone area in Bihar with partial and complete jobs.

METHODOLOGY

The methods employed in the selection of the study area, drawing the sample respondents, schedule-cum-framework used for collecting the information both at macro and microlevels to reach analytical conclusion, relate to the approach of the study.In sub-sections as follows, the methodological details containing research design, methods and instruments, analytical procedure etc.;

REVIEW OF LITERATURE:

There have been numerous economics-related studies of fish farming conducted at a national, state and district level by prominent social scientists and economists. The following paragraphs addressed their principal findings: Bihar has enormous scope for the growth of inland fishing in India.Fishing chimes in June-2001 ranked Bihar third in the production of inland fish and sixth in Indian freshwater seed production. Fishermen's community which is one of the most deprived parts of society carries on fishing activities in Bihar. Fishers are not able to make use of real tools of growth or science technology for the fishing profession as a result of analphabetism, poverty and ignorance of scientific knowledge.

It was observed (1977) that a tank thus prepared with good quality and rapidly increasing fingerling should always be deposited. Even if only one carp can be grown in a specific tank, it is cheaper and more productive to cultivate three or four different carp variants, because different carp species feed at various levels. Some feed at the bottom and some feed at the top, others feed on the periphery of grass. The common carp can be grown together, like Catla, Rohu, Mirgal and Common.

The tank water should be thoroughly agitated until the fingerlings are released, helping to decrease the surface temperature of the water. Fingerlings could then be lowered in a glass in the tank, and eventually escaped into the water after being conditioned to the tank water. Fingerling in the water in buckets can also be lowered and can slowly escape.

But Srivastava. al., (1984) conduct a land management study in the country and note that three types of farmer income groups have been identified there. (i.e. net wages, wages and income from family labour). The study showed that the average production of a pool in India is 681 kg / hac ..Rs. 1740, Rs. 2170 and Rs. 2898 respectively for the net income group, family labour group and farmers' company income classes is the income pattern of various farmers. The state-oriented research showed that in Bihar, Madhya Pradesh, Orissa and West Bengal fish farming has achieved good results.

And Srivastave and. At. At. An experiment was carried out in various parts of India on the cultivation of fish, and organic fertiliser has been reported to be employed in about 44% of pond and inorganic fertiliser in about 15% of pond. (1984) The data also showed that 77,4% of total fish production comes from Indian Major Carps and 27,6% from other fish species.

R. Korakandy (1984) revealed that Keralan traditional fishers find potential livelihoods in their purses, since they sweep through all the waters historically considered their preserve and do not leave any fish that they catch or breed. On the other hand, it is regarded as being a highly profitable area of investment considering all the risks associated with it (mostly non-fisherman).The fish traders welcome his purse as it guarantees them vast quantities of fish to be sold in the internal market for substantial profit. He concluded that fishing by mechanised vessels in coastal waters continued continuously, as traditional fishers grabbed the catches, and sporadic protests and abuse at sea.

B.N. Chodhary (1990) noted that the selection criteria for farmers in the extension programme and the selection of appropriate sites for aquaculture technology demonstration play an important role for the dissemination of fish farming.

S. Ganesau et al (1991) announced the net benefit obtained from Rs. 24,117 and duck crops in mixed farming and Rs. 13,790 from an existing onehectare crop system. Increased revenues were created by the introduction of Duck-cum-fish crops in mixed agriculture.

Satheesh and Similar remarks were also made by al. (1985). It is possible to infer from the above results that mixed farming with duck-cum-fish culture can be taken up in the Cauvery Delta area of Tamil Nadu to earn stable incomes and jobs through the year.

R.K.P. and Singh. Al. (1995) researched the economics of the Hansanpur block of fish production in Bihar, Samastipur, stressing that fish culture has a backward economic and social domain. Fish farmers prefer to use indigenous fish species and conventional fish farming methods.

P. The implementation of this shrimp culture project showed that aquaculture does not need to be restricted to major businessmen or the corporate sector, Ratnam (1995) stressed.The weaker sections of society, particularly the remote SCS, can use initial 23 financing, encouragement and technical supervision as an economically viable activity to improve their families' standard of living, enhance their social status and above all to make a foreign exchange benefit of their country.

The need to sensitise the public to the evolving progress of aquaculture technology in the fishing society is emphasised by Dilip Kumar (1996). Short-term training must be designed for rural young people with a focus on learning by creating opportunities for self-employment and socio-economic growth in the fishing community.

In order for extended fish staff and fishermen to be linked in a strong and effective manner, Subrathum (1996) suggested integrated fish farming technology with focus on participatory approaches.

M. Sinha (1999) stressed, but is at a critical point in its growth, that growth of inland fishing in India is a must in order to meet the requisite quantities. Degradation and degradation of fishing habitats have been increased, and for the sustainable growth and utilisation of our inland fishery resources a national perspective is important.

N.V. It is reported in Pillai (2000) that, in coming years, fishery extension programmes, through active participation through fishermen who operate in the freshwater, brackish and marine water sectors, must improve multiple programmes.

S.N. Dwivedi (2000) pointed out that, through the policy of aquaculture, the Information System and the Knowledge Society have the input of WTO and IPR in patenting Indian technology.

T.K. Deka and. al (2000) observed the factor that determines the poor economic situation of the fishermen community of Assam has been assessed by approximately 3,000 fishers' households from 13 districts of Assam. A variety of socio-economic considerations have been taken into account for this analysis.

CONCLUSION:

In this paper, the key objectives of the fisheries planning perspectives for the waterlogged areas and the productivity of fisheries reservoirs were analyzed. In addition, the goal was to assess the reorganization, development and enhancement of the infrastructural components of education and extension programmes, in order to improve the fishermen's socio-economic status and give rural student jobs.

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