



CHANGING PATTERN OF INLAND FISH PRODUCTION IN LALGOLA BLOCK DURING THE LAST TWO DECADES , UNDER MURSHIDABAD DISTRICT ,WEST BENGAL, INDIA AND ITS PROBLEMS.



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ABSTRACT

This study encompasses the changing pattern of fish production during last two decades in Lalgola Block under Murshidabad District ,West Bengal and its problems. Maintaining a good pond fish environment is crucial for growing healthy fish, achieving satisfactory production and improving production of fish. High yield and profit in fish culture completely depends on proper management. But even under good management , several difficulties may arise during fish farming with a possibility of large scale loss of production .Some difficulties have been occurred in fish production in Lalgola Block .These are Lack of Precipitation , Lack of sufficient knowledge of advanced methodologies, financial insufficiency, Lack of high yield fish etc. Both primary and secondary data base have been employed to conduct the study. Secondary data has been generated from the Government and Non-government offices , while the primary data has been collected through questionnaire survey in the villages. Personal contact with the local people was made and perceptions of the local people have been recorded. Some selected villages were taken into account to generate villages survey data. For economic development it needs policy implementation in sustainable manner.

KEY WORDS: *pattern of fish production, problems, primary and secondary data, questionnaire survey.*

1. INTRODUCTION:

In recent time West Bengal has occupied 1st position in producing fish and fishery products producing in India's total fishery production and Inland fishery production West Bengal had occupied 1st position till 2010-11, producing where as Andhra Pradesh produced 2nd position. Fishery is an important aspect in India providing financial support to a large number of households reflects on economic growth of the state of West Bengal. As per the Handbook of Fishery statistics, Government of India, this country is the 3rd largest producer of fish contributing. In previous time the large number of households depend upon fishery direct or indirectly to earn their living . From a study it has been found that most of fishermen in Lalgola Block are poor, low-educated. Besides they have less participation in social and cultural activities. They enjoy themselves the poor earning from fishing . In present time Rural fishery is mainly depends upon pond based. For economic development it needs policy implementation in sustainable manner.

OBJECTIVES:

The main objectives of this study are the following:

- To examine the changing pattern of fish production in Lalgola block under Murshidabad district during the last three decades.

- To study the problems of fish production in Lalgola Block.
- To suggest remedial measures for the growth of fish production of the study area under Murshidabad district.

Location of the Study Area:

Lalgola block are situated on the left bank of the river Bhagirathi . The geographical extension of the Block is from 24° 27' 35" to 24° 18' 15" N longitude and 88° 08' 25" to and 88° 19' 15" E latitude Covering of an area of 134 sq. km. Jangipur Block, is situated North-West, South & South-West are Sagardighi, Raghunathganj situated East accordingly in the periphery of Lalgola.

Database:

Both secondary and primary data have been used in this paper. Primary data has been generated using questionnaire survey, interview, field visit and the secondary data was collected from Census Book of India (2011), Report of the Ministry of Environment and Forest (West Bengal) Department, Irrigation Department, District Statistical Hand Book and Annual Reports. Photographs were taken where it was found very important.

METHODOLOGY:

The present study was conducted in 2 villages of Lalgola Block of murshidabad district ,West Bengal. Relevant information's for the present study were collected from 1st January 2018 to 30th March 2018 . Primary data were collected from the local peoples of the villages surveyed. The primary data collected from 50 persons respondent after interview it is found that most of the fisherman families are illiterate. Education status of fisherman families is not satisfactory .Simple random sampling techniques have been used to collect data. A question paper was prepared to know educational status, number of family member, monthly family income activities etc. Secondary data were collected from Census report of 2011 about demographic information of the Blocks and the villages, the Handbook Fisheries Statistics 2011, Murshidabad district Fishery Department to collect information about present fishery status of the district, Fishery statistics of Ministry of Agriculture, Fisheries Division, Government Of India and several related websites, papers and journals, books to obtain respective data . Data collected and generated in the field have been processed using appropriate statistical method.

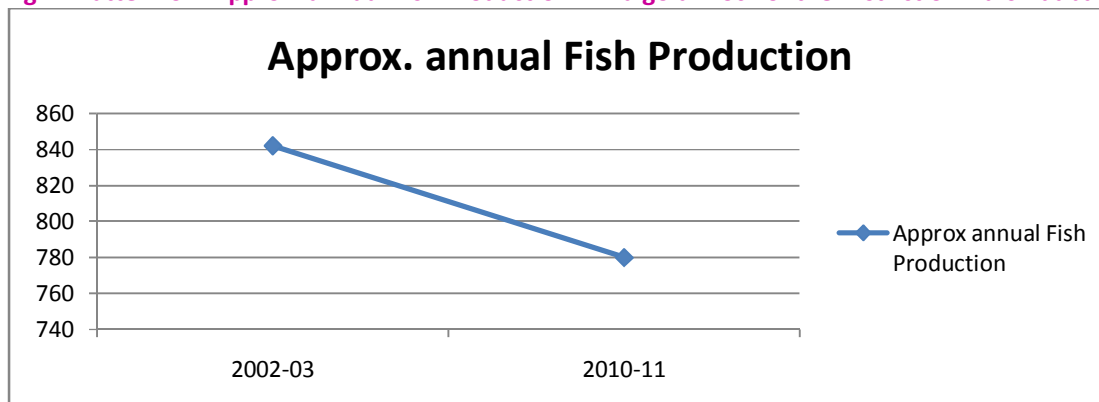
Discussion:

The changing Pattern of fish production in Lalgola Block :

Table 1: Particular in Fisheries in Lalgola Block of the District of Murshidabad

Year	No. of Govt. Schemes operated	Net area for Piscicultue (hect.)	Net area under effective pisciculture(hect.)	No. of Persons engagd	Approx. annual Production(ctl.)
2002-03	1	3856.28	3287.87	1643	842
2010-11	2	3647.71	3104.45	1522	780

Source : District Statistical Hand Book , Murshidabad, 2002-03 & 2010-11.

Fig 1: Pattern of Approx. annual Fish Production in Lalgola Block of the District of Murshidabad.

Source: : District Statistical Hand Book , Murshidabad, 2002-03 & 2010-11.

Problems of Fish Production in Lalgola Block:

There are some difficulties or constraints in rural inland fish production that lowers the impact below as expected. The major constraints observed during survey are-

(i) Decrease trend of Precipitation : . High population growth leads to the cutting of trees for cultivation and new buildings construction leading to several environmental changes. Amount of rainfall every years are decrease and temperature are increase. Drying of most ponds and beels during dry seasons fishing is restricted for 9 months. Decrease trend of precipitation are given below :

Table 2 : Monthly Rainfall in Murshidabad District (In Milimeter)

Month	2007	2008	2009	2010
January	--	22	--	--
February	44	2	10	2
March	44	9	21	--
April	21	32	--	18
May	108	70	182	127
June	296	266	79	232
July	518	351	199	157
August	232	240	297	128
September	373	222	296	186
October	85	56	96	101
November	1	--	--	2
December	--	--	--	36
Total	1722	1270	1180	989

Source: District Statistical Hand Book , Murshidabad , 2010-11.



Plate 1. : An infield Decrease trend of Precipitation survey by the author.

(ii) Lack of sufficient knowledge of advanced methodologies/ Lack of Education:

Table 3 : Level of Literacy in Lalgola Block , the District of Murshidabad, 2001& 2011.

Year	Persons	Percentage
2001	2,67,641	50.6
2011	3,35,831	64.32

Source: Census of India 2001 & 2011.

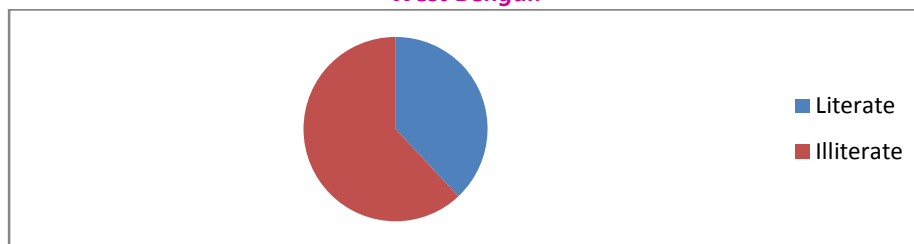
Table 4 : Level of Literacy in chuapukur & Rambagh villages under Lalgola Block , the District of Murshidabad, March,2018.

Sample size – 50 persons

Name of the Village	Nos.of FishersFamily	Nos.of literate Responded	Nos.of Illiterate Responded	% of literate	% of illiterate
Chuapukur	17	17	33	34	66
Rambagh	13	19	31	38	62

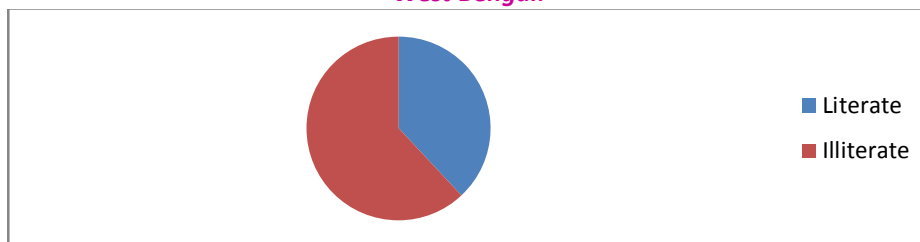
Source: Data generated in the field

Fig 2 : Literacy rates (%) in Chuapukur Village under Lalgola Block ,the district of Murshidabad, West Bengal.



Source: Data generated in the field

Fig 2 : Literacy rates (%) in Rambagh Village under Lalgola Block ,the district of Murshidabad, West Bengal.



Source: Data generated in the field

(iii) Lack of Money for fish Production :

Fishers family monthly income has been studied in the selected village namely Rambagh using the method of Primary survey. The table as generated is given below.

Table 5 : Fishers Family monthly income in the area under Lalgola block.(Murshidabad)

Sample size – 50 persons

Family Monthly Income	Nos. of Responded	% of the Total
5000-10000 Rs.	21	42
10000-15000 Rs.	15	30
15000-20000 Rs.	7	14
15000-20000 Rs.	5	10
More than 20000 Rs.	2	4

Source: Data generated in the field

Fishers family monthly income has been studied in the selected village namely Chuapukur using the method of Primary survey. The table as generated is given below.

Table 6 : Fishers Family monthly income in the area under Lalgola block.(Murshidabad)

Sample size – 50 persons

Family Monthly Income	Nos. of Responded	% of the Total
5000-10000 Rs.	19	38
10000-15000 Rs.	16	32
15000-20000 Rs.	8	16
15000-20000 Rs.	4	8
More than 20000 Rs.	3	6

Source: Data generated in the field

Some field survey pictures are given below which located closed to the Bangladesh border.



Plate 2 &3 : An infield door-to-door questionnaire survey by the author (Plate 2 Chuapukur & Plate 3 Rambagh field survey by the author).

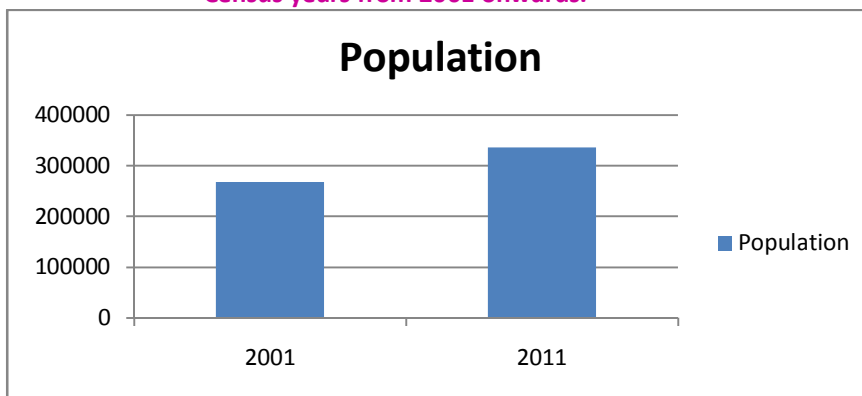
(iv) population Growth affects on Land (Clouse pond) : Rapid population growth have been observed in Lalgola block during the last two decades. So the new house are needed in Lalgola Block and needed to close some pond.

Table 7 : Distribution and Density of population in Lalgola Block, the District of Murshidabad, 2001 & 2011.

Year	Population Distribution(Nos.)	Population Density(Persons per sq. Km.)
2001	2,67,641	1997
2011	3,35,831	1616

Source : Census of India 2001 & 2011.

Fig. – 4 : Growth of Population in Lalgola Block the District of Murshidabad on Different Census years from 2001 onwards.



Source : Census of India 2001 & 2011.



Plate 4 : population Growth affects on Land in Rambagh Village ,Lalgola Block, Murshidabad survey by the author.

(v) Import of Fish : In Lalgola Block Fish are imported from Digha , Dimond Harbor area. So the demand of inland fish are decrease in Lalgola Block. Some field survey pictures are given below:



Plate 5 : The import of Digha fish an infield survey by the author in Lalgola Min Market.

CONCLUSION:

Present analysis shows that there has been changing scenario of fish production from 2001 to 2011 in Lalgola Block of the Murshidabad district, West Bengal is concluded to be the decreasing trend.

It is clear that a few number of households are fishermen and the areas of Lalgola Block are economically backward. It is also found that most of them have an average monthly income is 5000 to 15000 Indian rupees. Education status is poor in this Block. More than 60% of fisherman are illiterate in during a study in Lalgola Block, the district of Murshidabad, West Bengal, India. The District fishery department is trying to its best for growth of inland rural fishery providing methodological training, loan and financial support etc. There are some difficulties or problems in rural inland fish production that lowers the impact below as expected. The major problems observed during the survey are a) drying of most ponds and beels during dry seasons, so that fishing is restricted for 8 months b) lack of sufficient knowledge of advanced methodologies c) financial insufficiency d) poor marketing etc.

POLICY RECOMMENDATIONS:

Based on the above findings and assessment made thereby the following policy recommendations can be made.

- Educated sections of the society as well as the local leaders may take initiative to campaign programme to convince people at large about the problems of changing pattern of fish production.
- Spread fish education and promote societal activities.
- Arrange for awareness camps on a regular basis in Lalgola Block.
- Training are needed for fishery man in the study area.
- Preserve existing forest; and needed afforestation as well as social and agro-forestry.

Genetic Improvement :

Genetic improvement, it is necessary on the fish through morphometric and biochemical characterization to facilitate tangible genetic improvement programme.

Environmental Management :

Successful fish production depends on ecosystem services such as the availability of clean water and nutrient cycling to process. Pond environmental performance can be improved through the public awareness harmful effects of environmental issues, technological innovation, knowledge about proper facilities.

Needs for new technologies:

Fish production is dependent on progressive science and technological innovation to be competitive markets and sustainable in development.

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