

### THE SOCIO-ECONOMIC STATUS OF NATURAL WATER RESOURCES FISHERMEN OF BAREILLY UTTAR PRADESH, INDIA.

**Amita Saxena\***, **Ayatulla Chisti\*\*** and **Singh R.N.\*\*\***

**\*College of Fisheries, GBBPUAT, Pantnagar, 263145, India.**

\*\* Department of Aquaculture, Faculty of Fisheries, S.K.U.A.ST (K) Rangil Ganderbal Srinager Kashmir, India.

\*\*\* Department of Aquaculture (S.B.P.U.A & T Meerut, (U.P) Krish Vigyan Kendra Rampur, India.

#### ABSTRACT

To know the socio economic status of the fisherman of district Bareilly. We went to fisherman community, during the survey of Bareilly it was found that fisherman in a crucial position. Because fish catch from natural resources is declined day by day by several factors like industrial pollution, sewage effluents, domestic waste due to civilization near the bank of useful water resources and indiscriminate fishing of fish stock. The market survey of Bazaar Sandal Khan near about 2 km from Bareilly railway station (JN) where the fisherman community are also rehabilitated. During the interaction all the fishermen were male and main problem observed. The fishing process is exploited by several illegal procedures. The catch is declining day by day and its impact is not only on fish status but whole fish fauna and water quality of that stretch becomes destroyed for several months the deteriorated water conditions takes long times to revive or to get in its original/normal position. On the other hand the fish stock coming from other states have reduced the cost and taste of fish consumers. By that means the income of fisherman was near about Rs 25000 annually. On the basis of study we can conclude that the fishermen are interested to continue but the over exploitation by illegal means should be controlled.

**KEYWORDS:** Fisherman, Natural water resources, Socio-economic status.

#### INTRODUCTION

Natural water resources are usually fresh and marine. The fresh water resources flow towards the lake, ocean, sea or riverine systems. These natural water resources play an important role in fisheries point of view. The natural water resources are rivers, lakes and reservoirs. The rivers are maximum depth on the center where as lakes have small amplitude water level fluctuations of more or less 1m. More over reservoirs have large amplitude water level fluctuations. Some references were reported, Singh (1983), Singh and Singh (2012), Lakra(2012) Amita Saxena and Chauhan (paper communicated). During the water sampling, fishing effort, water quality parameters like pH, temperature, alkalinity, Dissolved oxygen, Carbon di oxide and total dissolved solids, alkalinity and also assessed the fisherman of natural resources. The questionnaire was filled at the time of sampling. On the basis of information's provided by the fisherman. These observations gave an idea about the catch trend and its impact on water quality

#### MATERIALS AND METHODS

To determine the socio economic status of the fishermen the following questionnaire was made and distributed to the fishermen of natural water resources concerned. The format of the questionnaire has been given below:

"FISHERMEN" QUESTIONNAIRE			
I. GENERAL INFORMATION			
S. No.	Question	Response	Percentage
1	<b>Name of the fishermen</b>		
2	<b>Gender</b>	Male Female	
3	<b>Age groups</b>	< 16 16- 28 29- 40 41- 57 >58	
4	<b>Marital Status</b>	Married Unmarried Other	
5	<b>Family members</b>	Daughter Son	

6 <b>Address</b>	
7 <b>Educational status</b>	Junior Metric/ Secondary Graduate/ master's Illiterate
II. FISHING PROGRAM	
8 <b>Where is the fish is sold</b>	In local market Export to metro cities Export to other cities Given to the owner/ contractor of that reservoir
9. <b>Transportation mode</b>	Bicycle Load carrier
10. <b>How the fish is transported</b>	In ice boxes In open bags (tokaries) In heat insulated box layered with ice
11 <b>Preference of fish by consumer</b>	..... Pangas Rohu Catla Singhi
12 <b>Varieties of fish in market</b>	..... Pangas Rohu Catla Singhi Nain Silver carp Grass carp Lachi Kursa
13 <b>Which net is used for fishing?</b>	Cast net Drag net Cast net Other (specify)
14 <b>Is the net provided to you?</b>	Yes No NR Made yourself
15 <b>Do you catch the same amount every day?</b>	Yes No NR
16 <b>If yes, then what is the quantity?</b>	
17 <b>If no, then describe what the average amount every day you catch?</b>	

18	Fishermen's income and work Other source of income	
19	<b>What are you doing during winter season?</b>	
20	<b>Is your family members also helped you or not?</b>	
21	<b>If yes, then who helps you?</b>	Son Daughter Wife
22	<b>And how?</b>	

NR → No Response

### RESULTS AND DISCUSSION

The socio economic status of fishermen on the basis of questionnaire is given below. Here we have selected 10 (ten) fishermen randomly.

S. N.	Questions	frequency/ answers	Percentage
<b>A. General informations</b>			
1.	<b>Sex</b>		
	a. Male	10	100
	b. Female	0	0
2.	<b>Age</b>		
	a. < 15	0	0
	b. 15- 29	0	
	c. 30- 44	3	30
	d. 45- 59	3	30
	e. > 60	4	40
3.	<b>Marital status</b>		
	a. Single	03	30
	b. Married	07	70
	c. Others	0	0
4.	<b>Resident of the village</b>		
	a. Yes	10	100
	b. No	0	0
	c. NA	0	0
5.	<b>Education of the fishermen</b>		
	a. Up to junior	0	0
	b. Matric/ Secondary	02	20
	c. Graduate/ Master's	0	0
	d. Illiterate	08	80
<b>B. Fishing programme</b>			
6.	<b>Where the fish is sold</b>		
	a. In local Market	08	80
	b. Export to metros	0	0
	c. Export to other cities	0	0
	d. Given to the owner/ contractor of reservoir	02	20

7.	<b>Transportation mode</b>			
	a. Bicycle	6	60	
	b. Load carrier	4	40	
	<b>8.How the fish is transported</b>			
	In ice boxes	3	30	
	In open bags (tokaries)	7	70	
	In heat insulated box layered with ice			
8.	<b>Preference of fish by consumer</b>			
	a. Pangas	6	60	
	b. Rohu	3	30	
	c. Catla	0	00	
	d. Singhi	1	10	
9.	<b>Varieties of fish in market</b>			
	a. Pangas			
	b. Rohu			
	c. Catla			
	d. Singhi			
	e. Kursa			
	f. Lachi			
	g. Silver carp			
	h. Nain			
	i. Grass carp			
10.	<b>Which net is used for fishing?</b>			
	a. Gill net	0	00	
	b. Drag net	5	50	
	c. Cast net	5	50	
	d. Other (specify)	0	00	
11.	<b>Is the net provided to you?</b>			
	No	0	0	
	Handmade (self)	10	100	
12.	<b>Fishermen's income and work</b>	2000 – 4000	6	60
		4000 – 7000	4	40
	<b>Other source of income</b>	- Nil		
13.	<b>What are you doing during winter season?</b>			
	Net weaving	03	30	
	Fish stock taking from whole seller for purchase	07	70	
14.	<b>Is your family members also helped you or not?</b>	- Yes		
15.	<b>If yes, then who helps you?</b>			Son Daughter Wife
16.	<b>And how?</b>			
	<b>NR</b> →	No Response		

The fisherman was used to go for fishing in their nearest natural water resource. Previously the catch was enough in their territory but that catch has now a days declined because the fisherman was honestly going to fishing without using any illegal procedures like use of gill nets, the cast and drag nets was used for the fishing purposes/operations is considered to be the best fishing operation, but the gillnets was used by the local fishermen which takes the catch with less efforts, as the net is tied once which remain stagnant, fish come along with the water and is gilled. But the fishermen which come from far long distant areas will not be able to receive the catch up to the mark due to the indiscriminate fishing. Soil erosion and quality of water has deteriorated the stock (flora and fauna) & breeding grounds i.e., streams and canals.

The industrial waste has increased the toxicity level in fish which will be harmful for human consumption. The preferable size for edible use is not possible because the fish stock has declined with various factors. The rules and regulations formulated by the government are not strictly followed by the fishermen and the civilians residing within

the vicinity or near the natural water bodies. Because unavailability/less availability of stock from the natural water resources have diverted the attention of fisherman towards the fish stock which is available in the market, actually this stock of pangas and other fishes are imported from the other states like Andhra Pradesh and Kerala. This availability has made the fisherman lethargic to go for fishing in distant areas. The contactors/wholesalers have given handsome package. By these less efforts and more benefit is given by the contractors to the fisherman has checked the fishing operations in natural water resources. The diversion has reported that their experience has been day by day declining as they were very well aware about the eradicate the net which was entangled inside the water body very easily and they have a very good experience of weather forecast by that they will decide whether we should go for fishing during the bad weather conditions or not.

### CONCLUSION

The fishermen who are living near to the natural water resources should be controlled by giving them incentives instead of punishment which will stop them to do fishing by illegal methods like gill net and use of chemicals which increases the toxicity level of the fish. Afforestation can control the soil erosion up to some extent the government should take the step of afforestation drive by providing plants free of cost among the public which is an easy and successful measure to control the soil erosion. The water quality is deteriorated the natural water resources because of industrial pollution and domestic sewage of civilians who are residing near the vicinity. It can be controlled if the government come in actions by showing that the industrial sewage treatment plant is functioning smoothly or up to the mark of satisfaction. The civilians should have an idea about the use of chemicals / detergents and their impact on flora and fauna of natural resources by organizing several camps of awareness programme about the use of biodegradable and non-degradable, the dumping of non-degradable items (should be burned) and biodegradable used as fertilizer should be the main aim of the awareness camp. There should be mesh size regulation on that basis we can give a chance to grow the fry and fingerlings up to the yearling stage or edible size fish.

### SUGGESTIONS

Fisherman in overall or dependent on natural water resources so the natural resources should be preserved and activated by providing a chance to grow the fish up to the marketable size. The fisherman should be rehabilitate near the vicinity and provide them the nets and other source of help for fishing operations then they will be able to continue and their experiences will help us a lot if there is an any natural disaster like flood in the area with their experiences will save the lives of several people as the can swim in the water for a long period of time.

### ACKNOWLEDGEMENT

Authors are thankful to college of fisheries GBPUAT Pantnagar India for provide necessary facilities.

### REFERENCES

- Amita Saxena and Chauhan Y.K.** The Socio-Economic Status Of Reservoir Fishermen of Uttarakhand India. Paper communicated
- Singh R. (1983).** Selected characteristics of farmers in relation to their adoption of farm mechanization. *Indian J. Extn. Edu.* 19: 11-27.
- Lakra W.S (2012).** Issues of livelihood Security Threats and Conservation in National Conference on Biodiversity Development Board and Poverty alleviation at Uttar Pradesh State Biodiversity board on 22Th May 2012.
- Singh S.K. and Singh A.K. (2012).** Socio economic analysis of fisherman and analysis of inland fish marketing in Varanasi region (UP). *Int. J. Agri. Eco. Stat.* 3(i) :67-71.
- Singh R. (1983).** Selected characteristics of farmers in relation to their adoption of farm mechanization. *Indian J. Extn. Edu.* 19: 11-27.