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## Constraints Faced By Fish Farmers & Implementing Agencies of Jammu Provinces of J & K

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**ABSTRACT:** In spite of huge potential for small scale freshwater aquaculture in the state of J&K, the pace of development in this sector has been found to be reduced than expected. Most of the fish farmers though are capable of becoming large scale commercial operators but because of various constraints they face in the field, fish farming has remained at low ebb in the state. Against this backdrop, presently studies were designed to look into various problems/constraints which are hampering the growth of fish farming in the study area. It was observed in the study area that lack of awareness regarding fisheries schemes, non availability of quality seed & feed, lack of water, misuse of subsidy, lack of proper exposure visits & institution credit, non availability of insurance cover besides compartmental approach and discrimination in allocation of ponds were the main constraints faced by fish farmers. In view of the constraints faced by fish farmers, certain recommendations have been made which if followed can take fisheries to great heights.

**KEYWORDS:** Fish farmer, fisheries, constraints, socio economic condition, extension.

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### INTRODUCTION

Fish is the primary source of protein for more than 1 billion people and fishing is the main occupation of over 100 millions of the world thus fisheries play a vital role in economy of the country. Fish is one of the most preferred foods in our state being cheapest, highly proteinaceous and easily digestible food for malnourished and starved people Razvi<sup>1</sup>. Besides, aquaculture offers as a viable and cost effective alternative to capture fisheries<sup>2,3,4,5</sup>. Fish farming has a great potential to help improve the economy of the state and our state of

J&K has huge potential for fresh water aquaculture or pond fisheries to develop and for farmers to improve their livelihood. Despite all this, the pace of development of fresh water aquaculture in our state has been slower. This is so because for establishment of grow out pond for fish culture, a sound and appropriate technological knowledge is required well in time so that rational decision are taken to produce quality fishes in ponds<sup>6,7</sup>. In our state some farmers are capable of becoming larger scale commercial operators but because

of various constraints being faced by them in the field, there is no significant growth in fish farming industry and the farmers are left with poor income in hand, which is responsible for their poor socio economic status.

Several constraints that are beyond the control of farmers may force them to participate in other activities which may bring some form of support for their family living, leading to great loss in fisheries sector.

Though lots of planning has been done in fisheries sector by extension units of fish farmers, yet hunger and malnutrition remain amongst the most devastating problems faced by the poor and needy people throughout the world. Very few studies on problems of fish farming have been reported at the micro level in J&K. The study is designed to look into the various problems faced by the fish farmers and to suggest possible remedies thereof. Respondents / fish farmers were selected randomly to gather data on actual farm related problems. Farmers were also interviewed to assess their perceptions about various constraints to their progress.

$$CI = \frac{SC \times 2 + C \times 1}{N}$$

Where, SC=Severe constraints

C= Constraint

N= Total number of respondents

The constraints themselves were classified into 3 sets viz; severe, most severe and no constraints. Constraints index were recorded using a scale of 1-6 with 6 indicating the most severe and 1 the least.

## MATERIALS AND METHODS

Selection of the Respondent fish farmers:

In order to have an idea of various constraints being faced by fish farmers involved in respective fish farming units/ponds, a total of 330 respondent fish farmers from the Jammu province were randomly selected. The Primary data was collected from respondents through personal Interviews by using structured interview schedule or questionnaire. The questionnaire/schedule was pre-tested in the field before using it for survey. The secondary data was collected from the staff of Department of Fisheries through a small questionnaire. Besides this extensive published internal reports and annual reports from fisheries department & published research papers in the field of fisheries were some of the other sources of secondary information.

Constraint index (C.I): Constraint index (CI) analysis was developed based on Majhi<sup>8</sup>. This index was analyzed to measure and compare the constraints expressed by different respondents.

## RESULT AND DISCUSSION

The various problems/constraints faced by both fish farmers and implementing agencies have been presently discussed under following two categories, these are as follows;

- I. Problems faced by the fish farmers
- II. Problems faced by the Implementing agencies

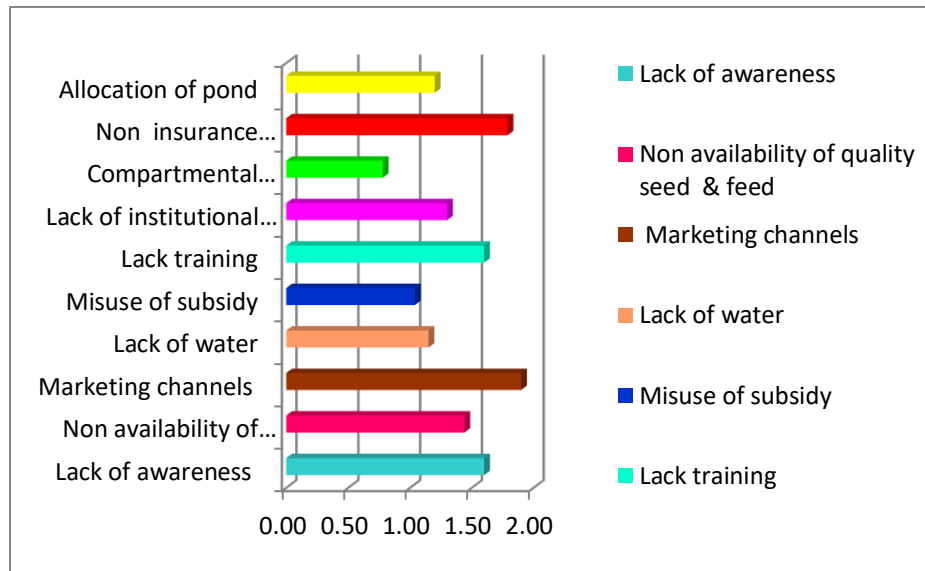
### I. Problems faced by the fish farmers

Respondent beneficiaries disclosed that they are suffering from many problems. These problems/constraints were analyzed using constraints index (CI) Majhi (2001) which shows the extent of severity of the problems. Various problems discussed by respondent and beneficiary fish farmers are discussed in descending order of severity (Table 1 fig 1) as follows:-

**Table 1: Various constraints faced by fish farmers of the study area**

S.No	Constraints	Severe constraints (sc)	Constraints (C)	No constraints	Total score (2xsc+c)	Constraint index (CI) = Total score/ total respondent	Rank
1	Lack of knowledge / awareness regarding fisheries schemes	231	66	33	528	1.60	3 <sup>rd</sup>
2	Non availability of quality seed & feed	191 (58.00)	92 (28.00)	46 (14.00)	474	1.44	4 <sup>th</sup>
3	Lack of adequate marketing channels	297 (90.00)	33 (10.00)	0 (0.00)	627	1.90	1 <sup>st</sup>
4	Lack of water	165 (50.00)	50 (15.00)	115 (35.00)	380	1.15	7 <sup>th</sup>
5	Misuse of subsidy	125 (38.00)	99 (30.00)	73 (22.00)	349	1.04	8 <sup>th</sup>
6	Lack of proper training/exposure visits	215 (65.00)	99 (30.00)	49 (15.00)	529	1.60	3 <sup>rd</sup>
7	Lack of institutional credit	155 (47.00)	118 (36.00)	56 (17.00)	428	1.30	5 <sup>th</sup>
8	Compartmental approach	125 (38.00)	132 (40.00)	73 (22.00)	259	0.78	9 <sup>th</sup>
9	Non availability of insurance coverage	280 (85.00)	33 (10.00)	17 (5.00)	593	1.79	2 <sup>nd</sup>
10	Allocation of pond	132 (40.00)	132 (40.00)	66 (20.00)	396	1.20	6 <sup>th</sup>

**Figure 1: Various constraints faced by fish farmers of the study area as constraints index**



**1. Lack of adequate marketing channels:**

During the course of studies, lack of adequate marketing channel was observed to be the first major constraint (CI=1.90) being faced by fish farmers of the study area. Fish farmers informed to the researcher that adequate marketing channels are not available in study areas. There is no denying the facts that they are marketing the fish through middlemen who takes away a major portion of their profits leaving a very less for the fish farmers. It is a well known fact that in most parts of J&K state, co-operative societies are different in nature at different places and as such no organized co-operative society seems to exist for fish farming. It was also informed by the fishermen that fish being highly

perishable commodity they have to sell their produce many a times at a very low throw away price. Besides they also stated that lack of such facilities like refrigeration and transport also becomes a stumbling block at the time of marketing of fishes.

**1. Non availability of Insurance coverage:**

A good number of respondents (85%) in the study area reported non availability of insurance coverage to be the second major constraints (CI=1.79) faced by them. They stated that their fishery units are not been insured by the insurance companies and that in case of any mishappening and eventuality, they have to suffer huge losses and sometimes are unable to restart their fisheries units. To arrive at a concrete conclusion the

researcher contacted the fishery department regarding an insurance coverage but they simply replied that they go as per the scheme guidelines and it is worth to mention that guidelines do not speak anything regarding insurance. This present author reiterates appears to be the major constraint in light of the fact that (i) fish is a perishable commodity and (ii) mass mortality due to disease outbreak many a times may result in total loss of produce.

### **2. Lack of awareness regarding fisheries programmes:**

Lack of awareness regarding various programmes was expressed by beneficiaries to be the third major constraint (CI=1.60) they are facing in the study area. A good number of respondents (70%) disclosed that they (fish farmers) neither know that fish rearing is more profitable compare to traditional crops like paddy, wheat etc. nor that fish has maximum protein value so, so useful for human dietary. Those involved in fish farming further disclosed that they were not aware of technical guidance for the fish growth in respect of seed, feed and breeding of the fishes on which otherwise depends the success of the fish farming.

### **3. Lack of proper training/exposure visits:**

It was also brought into the notice of the researcher during survey that no proper training is given to the fish farmer by the

department. They also informed that even if the training programmes stand organized, these are arranged in the district headquarters where, it is not possible for them to participate due to a number of reasons beyond their control. It was also disclosed by them that on the name of progressive fish farmer many influential farmer only get the chance to go for the advance training institutes and that the deserving ones remain neglected. When talked about exposure visits conducted by the fisheries departments, it was again noticed that same is the scenario in this context also.

### **4. Non availability of adequate quantity and quality of seeds, feeds, and hatchery units.**

This was stated by 58% fish farmers to be another constraint they are facing in the study area with constraint index (CI=1.44). During the course of survey and group discussion with fish farmer in the study area it was observed that the fish farmers were not getting good quality seeds and feed from the concerned department and as such the fish farmers have to purchase input from the local market on higher cost. This, present author feels is the main reason that more fish farmers are not coming forward to take up this activity. Besides non availability of good quality seed and feed fish farmers also reported that arrangement for transportation of seed

from places where hatcheries are situated viz; Jammu and Kathua districts to their respective fish farms is really a problem of great concern as many a times fish seed either get deteriorated or meet mass causality also. There are only two hatcheries units in Jammu province, which itself shows the non seriousness of the department in fisheries development.

#### **5. Lack of Institutional credit**

Approximately 47% of fish farmer with constraints index (CI=1.30) in the study area stated that banks and financial institution are not granting the institutional credit for fisheries department for the reason best known to them. A good number of fish farmers further disclosed that the bank officials are not even ready to discuss as to why loans are not being granted to them for such activity which is more profitable than traditional crops. To verify this fact present author visited local banks operating in their areas to know why they are not entertaining the fish farmers for fisheries development. They simply replied that they don't have any schemes for bank loans.

#### **6. Allocation of ponds**

Another problem which was highlighted by the 40% fish farmers was allocation of ponds (CI=1.20). They held that preferential treatment by the implementing agency is given to the panchayat members like Lambardars,

Sarpanchs and other local village leaders. The funds are sanctioned for construction of ponds in the favour of the well off people and not to the deserving cases that don't have any approach and political connection. Author also noticed very categorically in study area that because of this many deserving fish farmers remain away from the main stream of development.

#### **7. Lack of water**

Lack of water was stated by 50% of fish farmers (CI=1.10) as another constraint they are facing in the study areas. It was noticed by the researcher that availability of water, more specifically in the kandi and hilli areas was a big problem. It was quite interesting to note that in the irrigated areas, farmers go for plantation of paddy instead of fish rearing as they are under the impression that they may lose the fertile land in case they go for digging of ponds. So far as kandi and hilly areas are concerned, there is acute shortage of water where fish farming is not at all possible and appears to be a distant dream. The researcher during her visit to the districts of Udhampur and Rajouri, however noticed a few cases of fish rearing where farmers were using water from the local springs generally known as Bowli's in which water is available only during rainy and winter seasons and usually not during summer month (March-June). As such it appears

that in the kandi areas the fish farmers are facing acute problems concerning availability of water on one side and water management on the other.

#### **8. Misuse of subsidy**

The misuse of subsidy was expressed to be a severe constraint by 38% of fish farmer with constraint index, (CI=1.04). It was observed during the field survey that in certain cases there was misuse of subsidy amount. It was noticed that influential people manipulate their status and even the eligibility criteria while availing the benefits of subsidy.

#### **9. Compartmental approach**

Approximately 38% farmers with constraint index (CI=0.78) stated compartment approach as one of the constraint. During present studies author observed that there was no co-operation & co-ordination among the implementing agencies, like departments and financial institutions, with the result that such programmes are not being implementing in the right spirit.

### **II. Problems/Constraints faced by the Implementing agencies (DoF):**

To take stock of the problem being faced by implementing agencies, discussion/interactions were held with them through structured questionnaire. The various constraints, faced by them are as follows:

#### **1. Lack of co-operation**

During discussion with the implementing agencies it was noted that the fishery department is not getting full co-operation from the respondents. The agency official disclosed that fishermen in rural area are not cooperative and don't adhere to the technical guidance given by the department for the rearing of fishes. They further stated that people overlook their guidance regarding stocking of fishes, branded feeds to be used, seed and breeding of fish.

#### **2. Illiteracy**

The implementing agencies also pointed out that due to illiteracy, the respondents are not ready to adopt new business ventures like fish rearing because of low education status, and fishery official stated they are not ready to leave their traditional crops with the fear that in case they go for construction of pond, it may ruin them.

#### **3. Low level of people participation**

Another problem which the implementing agency is facing in the study area was the low level of participation from the fish farmers. The fisheries department official stated that fish farmer usually don't attend & participate in the training programmes organized by them due to which they remain ignorant about the new technology and techniques which can help them in boosting the fish production.

#### **4. Lack of institutional credit**

The implementing agencies also pointed out that commercial banks are not sanctioning any type of loan for fish farming. The agency official also stated that they personally approached a few branches of commercial bank for providing institutional credit to the fish farmer but they gave the plea that fishes being perishable commodity, they cannot provide any loan for such activity. This really appears to be the major limiting factor for many farmers who otherwise are interested to start fish farming activity/business.

#### **5. Lack of seriousness on the part of fish farmer**

The implementing agencies during discussion with the author further disclosed that to some extent the fish farmers also do not seriously follow instructions at the time of transportation of fingerlings, pond management/health of fishes. As a result of which they are bound to get low production and ultimately low returns. Besides, agency officials also stated that fish farmers use excess quantum of seed, feed and fertilizers with the notion that their profits will increase and as such they do not get desirable results.

#### **RECOMMENDATIONS**

Looking into the constraints being faced by the fish farmers of the study area certain recommendations have been made

which will go a long way in improving the socio economic status of fish farmers through improved fisheries these are:-

- ❖ It is suggested that awareness programmes regarding fishery as a most profitable activity compared to traditional crops, should be organized in villages and not on the main roads as it is being done by in case of many rural development programmes. If proper awareness is created among rural people in general & women in particular, it can bring wonderful result as more and more people can be included to take up this activity which will increase their income and ultimately their economic status also.
- ❖ Training institutions should be set up in the areas where lot of fisheries activity are going on and not at head quarters of district simply because the rural poor's on one hand and women on the other hand cannot attend such programmes at district head quarters. Rather mobile training institutions/centers should be set up for imparting training to rural people for taking up fish farming activity.
- ❖ The fish farmers should be given amenities for education so that they can learn latest technologies in the fisheries sector as lack of education is hindering the progress of fish farming. Since, most of our fish farmers are illiterate or ignorant so, they feel



hesitant to approach bank or other authorities. Therefore, author recommends that bank and other co-operative societies should reach to the door steps of fish farmers to give maximum benefit in the form of credit facilities to the needy fish farmers for expanding fisheries sector.

- ❖ Fish farmers should be provided high quality feed to minimize the high cost of feed and to get high quality fingerlings, advance planning on the part of the extension agencies need to be done encouraging absolute development of an effective delivery system. Also grants, loans and subsidies should be given to the fish farmers to enable them to bear the costs of feed and equipment in order to increase fish production as lack of quality fingerlings and feed cost are the major constraints in promoting fisheries.
- ❖ Most fish farmers of the study area lack adequate knowledge in fish feeding and other related areas because of inadequate extension services so, it is recommended to enhance extension services as well as staff for educating fish farmers on various aspect of fish farming.
- ❖ Certified seeds and quality feeds, need to be ensured as either of these could be the carrier of a problem which may unfold itself in the fish farm at a later

stage adversely effecting both the production as well as the produce.

- ❖ Incentive schemes should be introduced for extension officers in order to create more interest and motivation in them, so that they perform their duties in more effective ways and the fisheries extension personnel should have good liaison with various research institutes and universities for latest updates in the field of fisheries for better results.
- ❖ Fisheries schemes are meant for the benefit of poor fish farmers. It is suggested that there should be fair allotment of funds and ponds, made to the fish farmers keeping aside political influence. It will definitely uplift their socio economic status as well as help raise fish production besides development of fish farmer's community.
- ❖ Marketing is the backbone of any enterprise and fisheries is no exception. In the study area however no proper markets are available with the result major share of benefit is taken up by the middlemen. The fishermen being primary producer of the fish should actually get maximum profit. It is therefore recommended to establish properly organized markets to cut the role of middlemen. It will definitely help and benefit the poor fish farmers in elevating their socio

economic status on one hand and adoption of fisheries by more people on the other.

### CONCLUSION

Fishery, an important occupation next to agriculture, is regarded as a sustainable income and employment generator and hence occupies a very important place in the socio-economic development of the country. As per the Constitution of India, fishery is a state subject & states have the responsibility of fisheries development including aquaculture but our state in spite of huge potential and superfluous resources is lacking in fisheries sector.

It is felt that greater improvement in fish production can be achieved with a proper analysis, which will lead to knowledge of the effect of productive inputs on outputs of pond fish farming and constraints to pond fish production which constitute the basis for this study.

Present study indicated that many fish farmers who are capable of becoming large scale commercial operators but because of several constraints they face in the field viz; lack of knowledge/awareness regarding various fisheries schemes, poor quality of seed and feed, lack of adequate marketing channels, non availability of insurance coverage, lack of proper exposure visits, misuse of subsidy, lack of water, lack of institutional credit, allocation of ponds &

compartmental approach, fish farming has remained at low ebb in our state.

The plight of implementing agency is also not up to the mark because of, lack of co-operation, illiteracy, lack of institutional credit, low level of fish farmer's participation, lack of adequate co-operation & co-ordination from the line departments and lack of seriousness, which may be the major constraints faced by them and these constraints are acting as big hurdle coming in their way in performing their duties. All the above mentioned constraints faced by both fish farmers and implementing agencies need to be addressed with greater concern which is necessary to revive the condition of fish farmers and revitalize the prospects of a viable fishery enterprise.

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