

## **Economic empowerment of women through participation in fish farming**

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### **Abstract:**

Fishery is one of the most important sub-sectors of Agriculture. It has been recognized as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food besides a foreign exchange earner. This sector is also a principal source of livelihood for a large section of economically underprivileged population of the country. As fishery is an important component of Indian economy, so involvement of women in this sector is very essential. The present study was conducted to explore the involvement of women in fish production. The study was conducted in Nowboicha Development Block of Lakhimpur district of Assam. Ten women from five selected villages and whose pond area was of minimum 1 bigha and having minimum 2 years fish farming experience had been identified for the present study. An interview schedule was used to study the background characteristics as well as the practices where women were involved. Findings showed that 66 per cent respondents were middle aged women, majority were married

(94 per cent), nuclear family (72 per cent), no formal education (70 per cent), small sized family (54 per cent), low level of extension contact (86 per cent), low level of mass media exposure (84 per cent), katcha house (56 per cent), membership in any one organization (72 per cent) and no participation in fish farming training (80 per cent). Finding revealed that all the respondents were involved in aquatic weed removal, 94 per cent were involved in drying bottom of the pond, 86 per cent removed unwanted fish from their pond bottom, 82 per cent involved in application of lime, 74 per cent were involved in application of organic fertilizer (cow dung). It is evident from the study that all the respondents were involved in cleaning of pond and 60 per cent were involved in cleaning of surrounding of pond. Majority of the respondents (84 per cent) were involved in releasing the fingerlings in the pond and all the respondents were involved in feeding fingerlings. All the respondents were involved in feeding of fish and feeding used to feed fish like mustard oil cake, cowdung, rice bran and grass. 80 per cent take care of fish from migratory birds. All the respondents were involved in harvesting of fish. 80 per cent of the respondents were involved in decision making activities like site selection, selection of fish seed, rearing proportion, harvesting time of fish.

Keywords: economic empowerment, involvement, fish production

## **Introduction**

Fishery is one of the most important sub-sectors of Agriculture. Fishery sector plays an important role in the socio-economic development of the country. It has been recognized as a powerful income and employment generator as it stimulates growth of a number of subsidy industries and is a source of cheap and nutritious food besides a foreign exchange earner. This sector is also a principal source of livelihood for a large section of economically underprivileged population of the country, especially in the coastal areas (Ayyappan, 2002).

## **Justification**

Presently fishery is recognized as viable income generating activity but due to illiteracy, poverty, lack of mass media exposure age old techniques and methods are used for fish production. As fishery is an important component of Indian economy, so involvement of women in this sector is very essential. Assam has vast potentiality for development of pond fish culture to make the state self sufficient on fish requirement and for large employment generation.

Therefore it is essential to explore the extent of involvement of women in fish production; so that need based and skill oriented training programme could be organized at their doorstep.

Considering this the present study entitled, “Economic empowerment of women through participation in fish farming” is proposed with the following objectives.

### **Objectives**

- 1) To study the background profile of the respondents.
- 2) To explore the involvement of women in fish production.

### **Materials and methods**

The study was conducted in Nowboicha Development Block of Lakhimpur district of Assam. A list of pond fish producing villages was prepared in consultation with the Fishery Extension Officer of respective block. From the list, five villages were selected based on the criteria that majority of household considered fish farming as primary occupation. From the selected villages ten women whose pond area was of minimum 1 bigha and having minimum 2 years experience in fish production were screened out.

In the present study; 10 independent variables viz. age, marital status, family type, family size, educational qualification, organizational membership, type of house, extension contact, mass media exposure, participation in fish farming training were selected. An interview schedule was used to collect data. The data was collected through personal interview method.

### **Results and Discussion:**

It is evident from the Table 1 that majority of the respondents (66 per cent) were middle aged women where 24 per cent were younger age category and other 10 per cent were old age category. Majority of the respondents (94 per cent) were married where 6 per cent were unmarried. Majority of the respondents (72 per cent) were belonged to nuclear family where as 28 per cent were belonged to joint family. Results showed that 54 per cent of the respondents were small sized family, 32 per cent were medium sized family and remain 14 per cent were having large family size. Majority of the respondents (70 per cent) have no formal education where 12 per cent had education upto primary school level, 8 per cent can read only, 6 per cent can read and write and a very negligible per cent have education upto HSLC level. Majority of

the respondents (72 per cent) had membership in any one organization, 18 per cent of the respondents have membership in more than one organization where 10 per cent of the respondents had no membership in any organization. 56 per cent of the respondents had kaccha type house where 30 per cent of that had mixed house and remain 14 per cent had pucca house. Majority of the respondents (86 per cent) had low level of extension contact where 14 had medium level of extension contact. Majority of the respondents (84 per cent) had low level of mass media exposure where 16 per cent had medium level of mass media exposure. Majority of the respondents (80 per cent) had no participation in fish farming training where remaining 20 per cent had participated in fish farming training.

**Table 1: Distribution of respondents according to the background profile**

Characteristics	Category	Percentage
Age	Young (23-35)	24
	Middle (36-49)	66
	Old (50-62)	10
Family type	Nuclear	72
	Joint	28
Family size	Small (Upto 4)	54
	Medium (5 to 7)	32
	Large (8 and above)	14
Educational qualification	Illiterate	70
	Can read only	8
	Can read and write	6
	Primary school level	12
	High school level	4
Organizational membership	No membership	10
	Member of one organization	72
	Member of more than one organization	18
Type of house	Katcha	56
	Mixed	30

	Pucca	14
Extension Contact	Low	86
	Medium	14
Mass media exposure	Low	84
	Medium	16
Marital Status	Married	94
	Unmarried	6
Participation in fish farming training	Participated	20
	Not participated	80

**Table 2: Distribution of respondents according to the involvement of activities before rearing fingerling**

Sl. No.	Activity	Percentage
2.1	Aquatic weed removal	100
2.2	Removal of unwanted fish	86
2.3	Drying bottom of the pond	94
2.4	Removal of organic deposit from pond bottom	48
2.5	Application of lime	82
2.6	Application of inorganic fertilizer (urea, super phosphate)	30
2.7	Application of organic fertilizer (cow dung)	74
2.8	Application of fertilizer(nitrogenous fertilizer, phosphate fertilizer, suspension)	30

It is evident from the Table 2 that all the respondents were involved in aquatic weed removal, 94 per cent were involved in drying bottom of the pond, 86 per cent removed unwanted fish from their pond bottom, 82 per cent involved in application of lime, 74 per cent were involved in application of organic fertilizer (cow dung), 48 per cent removed organic deposit from pond bottom, 30 per cent were involved in application of inorganic fertilizer (urea, super phosphate) and application of fertilizer(nitrogenous fertilizer, phosphate fertilizer, suspension).

**Table 3: Distribution of respondents according to the involvement of Activities related to pond**

Sl. No.	Activity	Percentage
3.1	Cleaning of pond	100
3.2	Cleaning of surrounding of pond	60

Table 3 showed that all the respondents were involved in cleaning of pond and 60 per cent were involved in cleaning of surrounding of pond.

**Table 4: Distribution of respondents according to the involvement of activities related to fingerling**

Sl. No.	Activity	Percentage
4.1	Collection of fingerling	40
4.2	Releasing the fingerlings in the pond	84
4.3	Feeding fingerlings	100

The Table 4 reveals that 40 per cent of the respondents were involved in collection of fingerling, majority of the respondents (84 per cent) were involved in releasing the fingerlings in the pond and all the respondents were involved in feeding fingerlings.

**Table 5: Distribution of respondents according to the involvement of activities related to fish**

Sl. No.	Activity	Percentage
5.1	Feeding of fish	100
5.2	Feeding used to feed fish	
5.2.1	Mustard oil cake	100
5.2.2	Cowdung	100
5.2.3	Rice bran	100
5.2.4	Grass	100
5.2.5	Formulated fish	40
5.3	Health check-up of fish	10

5.4	Take care of fish from migratory birds	80
5.5	Harvesting of fish	100
5.6	Marketing of fish	48

It is evident from the Table 5 that all the respondents were involved in feeding of fish and feeding used to feed fish like mustard oil cake, cowdung, rice bran and grass, where 40 per cent used formulated feed. Table 5 showed that only 10 per cent respondents were involved in health check up of fish whether 80 per cent take care of fish from migratory birds and marketing of fish (48 per cent). All the respondents were involved in harvesting of fish.

**Table 6: Distribution of respondents according to the involvement in decision making activities**

Sl. No.	Activity	Percentage
6.1	Site selection	80
6.2	Selection of fish seed	80
6.3	Rearing proportion	80
6.4	Harvesting time of fish	80

Table 6 revealed that 80 per cent of the respondents were involved in decision making activities like site selection, selection of fish seed, rearing proportion, harvesting time of fish.

### Conclusion

It can be concluded from the study that involvement of women in fish production technology is limited. Fish farming is a viable enterprise which will ensure sustainable use of wet lands and provide a constant flow of income to the families. Findings revealed that extension contact and mass media exposure of the women were very poor. It is necessary to arrange need based training programme such as demonstration, exposure visit etc on fish production. The concerned department should organize interventions programme/ awareness camp for those women so that they may be empowered with skill and latest technology of fish production.

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