

## Feedback of FFDA Beneficiaries towards the Functioning of FFDA in West Bengal

Soumili Das<sup>1</sup>, S.S. Dana<sup>2</sup> and Biswarup Saha<sup>3</sup>

1. Ph.D. Scholar, 2. Prof., 3. Asso.Prof. and Head, Department of Fishery Extension, Faculty of Fishery Sciences, West Bengal University of Animal & Fishery Sciences, Kolkata, West Bengal.

Corresponding author e-mail: [soumili.ext@gmail.com](mailto:soumili.ext@gmail.com)

Paper Received on August 09, 2018, Accepted on September 11, 2018 and Published Online on October 01, 2018

### ABSTRACT

The Fish Farmer's Development Agency (FFDA) was set up in the year 1973-74 to popularize fresh water fish farming in the country. Like other state, FFDA was also implemented in West Bengal for assisting fish farmers in securing bank loan and channelizing the subsidy component, organizing training and Demonstration Centers (DC) for capacity building as well as dissemination of improve fish farming practices. It also provides input such as feed, seed, fertilizer, lime, medicine etc. FFDA schemes have been implemented to increase the production and productivity of inland fisheries. The study was conducted to examine the feedback of FFDA beneficiaries towards the functioning of FFDA in West Bengal. Data were collected from randomly selected 60 beneficiaries of 4 blocks of North 24-Parganas district of West Bengal with the help of structured interview schedule. The result of the study disclosed that majority of the beneficiary (66.67%) perceived that training provided by FFDA was most useful and 72.22 per cent of beneficiaries were highly satisfied by the trainings provided. It was also identified that majority of the beneficiary (57.43%) perceived that adequate credit facilities were extended by the agency. Major constraints perceived by the beneficiaries were occurrence of frequent flood followed by poaching and poisoning of fish, lack of quality fish seed and high cost of supplementary feed.

**Key words:** FFDA; Beneficiaries; Constraints; Feedback; Fish farming;

The FFDA was set up in the year 1973-74 by Government of India to popularize fresh water fish farming in the country by assisting fish farmers in securing bank loan and channelizing the subsidy component, organizing training for dissemination of improve fish farming practices and provides input such as feed, seed, fertilizer, medicine and setting up Demonstration Centers (DC) for showing the experimented results of farming practices to other farmers so that they can also be influenced. The major activities of FFDA are construction of new ponds where beneficiaries are given to subsidy @ 20% with a ceiling of Rs. 20,000/- per ha and subsidy @ 25% with a ceiling of Rs. 25,000/- per ha for renovation, reclamation of ponds and tanks.

West Bengal has been playing a significant role in regard to fish culture since the time immemorial. Fish being one of the main food items, the demand for fish is

very high in the state. The present annual fish production in the state is about 1.67 million metric tons in 2015-16. The contribution of West Bengal to the total production of the country is about 18.28 per cent while the contribution of West Bengal to total consumption of fish food is about 28.57 per cent. There is still a gap in between supply and demand due to the burgeoning demand. The average productivity in inland has been increased from 600-800 Kg/ ha/ annum in the year 1981-1982 to 4000-4750 Kg/ ha/ annum by 2015-2016 (Hand Book of Fisheries Statistics). FFDA's have brought about 1, 29,668 hectares of water area under modern fish culture operations benefiting approximately 4,07,551 persons with an average productivity reported 4,400 kg/ ha/yr in West Bengal (DAHDF, 2014-15). To minimize the gap of demand and supply in fish production by utilizing unused water body into fish production and by introducing scientific fish production practices in the state

the FFDA was entrusted to bring all the fallow culture fishery resources under optimum fish production progressively. Therefore, the feedback of beneficiaries regarding the functioning of the agency is utmost important for sustainable development in future. Keeping this background in mind the present study was conducted to selected district of the state to ascertain the feedback information of the beneficiaries in major functioning of FFDA. The study was also focused on identifying the constraints perceived by them in fish production practices.

**METHODOLOGY**

The study was conducted in North 24-Parganas district of West Bengal, India in the year of 2017 as the district has a vast freshwater area. Out of the 22 blocks in the district, 4 blocks were selected based on higher concentration of beneficiary by simple random sampling without replacement technique. The selected blocks were Bongaon, Gaighata, Barrackpore-I and Habra-I. List of beneficiaries were collected from FFDA. From each block, 15 FFDA’s beneficiaries were selected by simple random sampling without replacement technique. Thus, total 60 farmers/ beneficiaries constituted for the sample of the study. Ex-post-facto research design was used for conducting the study systematically. Likert scale was used to measure FFDA beneficiaries’ feedback towards the functioning of FFDA. To measure the constraints perceived by the beneficiaries a constraints index based on the following formulae was used on the line of *Majhi (2001)*.

$$\text{Constraints index} = \frac{\text{VSC} \times 2 + \text{SC} \times 1}{\text{Total respondents}}$$

VSC= Very Severe constraint

SC= Severe constraint

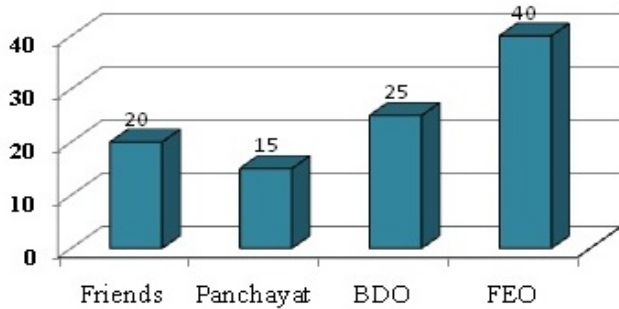
**RESULTS AND DISCUSSION**

It could be observed from the Table 1 that out of the total respondents 70 per cent of beneficiaries were middle aged, 65 per cent of them had small family size (up to 5 members), 60 per cent of the beneficiaries were belonged to nuclear type of family, around 45 per cent respondents were Scheduled Caste (SC). Majority of the respondents (40%) had completed their primary level of education. Slightly more than half of the respondents had more than 10 years of farming experience. More than two third of the sampled farmers used to engaged in fish farming as primary occupation. Around 53.33

**Table 1. Socio-econ. profile of FFDA beneficiaries (N=60)**

Variables/categories		No	%
Age	Young	16	26.67
	Middle	42	70.00
	Old	02	03.33
Family size	Small (up to 5)	39	65.00
	Large (above 5)	21	35.00
Family type	Nuclear	36	60.00
	Joint	24	40.00
Caste	General	15	25.00
	Scheduled Caste (SC)	27	45.00
	Scheduled Tribe (ST)	01	01.67
	OBC	17	28.33
Educational qualification	Illiterate	03	05.00
	Primary	24	40.00
	Secondary	12	20.00
	Higher secondary	13	21.67
	Graduate	07	11.67
	Post Graduate	01	01.66
Farming experience	Up to 5 years	10	16.67
	Above 5 to 10 years	18	30.00
	Above 10 years	32	53.33
Occupation	Fish farming as primary	51	85.00
	Fish farming as secondary	09	15.00
Land size	Up to 1 hectare	32	53.33
	Up to 2 hectare	14	23.33
	Up to 3hectare	07	11.67
	Above 3hectare	07	11.67
Selling price of fish	Low	01	01.67
	Medium	56	93.33
	High	03	05.00
Production of fish	Low	05	08.33
	Medium	46	76.67
	High	09	15.00
Annual income from fish farming	Low	06	10.00
	Medium	44	73.33
	High	10	16.67
Marketing of produce	Wholesale or <i>Arat</i>	45	75.00
	Local market	13	21.67
	Other state	02	03.33

percent of them had up to 1 hectare of land. It was also found that 93.33 per cent of beneficiaries used to sell their fish at Rs 95/kg to Rs 154/kg (medium selling price). The result of the study showed that majority of the beneficiaries (76.67%) used to harvest medium level of production (above 800-3500kg/year). It was also found that 73.33 percent respondents had medium level of annual income. The average annual income of the beneficiaries was Rs. 2,85,300. The study revealed that majority of the respondents (75%) used to sell their produce in wholesale market (*Arat*).



**Fig 1. Distribution of respondents according to their information seeking behavior**

*Source of information about FFDA :* The result of the study indicated that a majority of respondents (40%) sought information about different fisheries as well as FFDA's scheme through Fishery Extension Officer (FEO) followed by Block Development Officer (BDO) (25%), friends (20%) and panchayat (15%) as given in the figure-1.

*FFDA assistance:* As depicted in the Table 2 around 78.33 per cent of beneficiary availed credit facility from the agency, 60 per cent of them received training and 31.67 per cent of them received feed, seed, fertilizers as critical input for their fish farming from FFDA. Whereas, 15 per cent of them availed training, credit and critical inputs.

**Table 2. Distribution of respondents according to FFDA assistance (N=60)**

Source	No.	%
Only Training	09	15.00
Only Credit facility	15	25.00
Only Input	03	05.00
Training and credit	17	28.33
Training and input	01	01.67
Credit and input	06	10.00
All (training + credit + input)	09	15.00
Total	60	100.00

*Feedback of beneficiaries about training program of FFDA:* As per the result of the study illustrated in the Table 3 majority of the beneficiaries (66.67%) perceived training provided by the agency was most useful for them as they had reportedly successfully applied the knowledge and skill in their farm. Around 69.44 per cent of the total beneficiary perceived high social acceptance of the training provided to them and 72.22 per cent of beneficiaries were highly satisfied after receiving the training from the agency. Different subject matter of the training provided by the FFDA were

composite fish culture practices in scientific way, pond construction, water and soil testing, fish feed formulation and feeding etc. Farmers who received training were more eager to get such type of training as per their training need in near future so that they can increase their production and improve their livelihood.

**Table 3. Feedback of FFDA beneficiaries about training program (N=36)**

Parameters	No	%
<i>Usefulness of training</i>		
Most useful	24	66.67
Useful	11	30.55
Undecided	0	0
Not so much useful	01	02.78
Not at all	0	0
<i>Social acceptance of training</i>		
Highly accepted	25	69.44
Accepted	10	27.78
Undecided	0	0
Not so much accepted	02	05.55
Not at all	0	0
<i>Satisfaction level of training</i>		
Highly satisfied	26	72.22
Satisfied	10	27.78
Undecided	0	0
Dissatisfied	0	0
Very dissatisfied	0	0

**Table 4. Feedback of beneficiaries about credit facility of FFDA (N=47)**

Parameters	No	%
<i>Adequacy of fund</i>		
Most adequate	05	10.63
Adequate	27	57.43
Undecided	01	02.12
Not so much adequate	13	27.70
Not at all	01	02.12
<i>Timeliness of fund</i>		
At proper time	34	56.67
Not at proper time	26	43.33
<i>Satisfaction level of credit facility</i>		
Highly satisfied	20	42.56
Satisfied	18	38.30
Undecided	01	02.12
Dissatisfied	08	17.02
Very dissatisfied	0	0.00

*Feedback of beneficiaries about credit facility of FFDA :* To extend the facilities of credit for carrying out different critical activities in aquaculture is one of

the important functions of the FFDA. As depicted in the Table 4, majority of the beneficiary (57.43%) received adequate quantity of credit for performing the fisheries activity in their respective farm. The utilization of credit often depends on the availability of credit to the farmers at the right time in different stages of the fisheries activity. The study revealed that around 57 per cent of beneficiary availed credit in time as per their requirement and rest of the farmers availed credit not at proper time and consequently they faced problem in their fisheries activity.

**Table 5. Feedback of beneficiaries about usefulness of input of FFDA (N=19)**

Usefulness of input	No.	%
Most useful	17	89.48
Useful	02	10.52
Undecided	0	0
Not so much useful	0	0
Not at all	0	0

*Usefulness of input* : The result of the study as given in the Table 5, revealed the out of total beneficiaries who availed inputs such as quality seed, feed, fertilizers, lime etc. from the agency, around 89.48 per cent perceived that the input was ‘most useful’ for them to conduct the fisheries activities smoothly and 10.52 per cent felt that the inputs were ‘useful’ for them as it was adequate in quantity for the fish farming in their

respective pond. The beneficiaries who availed input from the agency also influenced other fellow farmers to adopt scientific fish production practices by demonstrating the composite fish culture in their respective ponds. Therefore farmer to farmer extensions were also encouraged by the FFDA.

*Constraints faced by the FFDA beneficiaries* : Table 6 reveals the major severe constraints in scientific fish farming practices as perceived by the beneficiaries were problem of occurrence of frequent flood with index value 1.57 followed by poaching (1.37) and lack of quality fish seed (1.25), malicious poisoning of the fish pond (1.23), high cost of supplementary feed (1.12). Farmers faced problem regarding flood as because the study area was prone to flood. It was reported by the respondent farmers that maximum time the fishes were drained out with the flood. It was claimed by the farmers that the poaching was very severe problem in the study area. Many farmers found that in spite of watch and ward, night poaching could not be averted owing to the small size of the water area of the ponds, which were easily poachable. The present study was in conformity with the findings of *Bhaumik et al. (1992)*. However, *Chandra (1986)*, *Balasubramaniam (1988)*, *Talukdar (2000)*. Non availability of adequate qualitative fish seed at the right time was viewed as a limiting factor by some of the beneficiaries. As a result

**Table 6. Constraints encountered by the FFDA beneficiaries in adoption of scientific fish culture practices in 24-PGS (N)**

Problems	Not so serious		Serious		Very serious		Total Const-rants	Index	Rank
	No.	%	No.	%	No.	%			
Problem of poaching and theft of fish	06	10	26	43.33	28	46.67	82	1.37	2
Malicious poisoning of fish pond	14	23.33	18	30.00	28	46.67	74	1.23	4
Problem of multi-ownership	45	75.00	11	18.33	04	06.67	19	0.31	17
Inadequate family labour	26	43.33	24	40.00	10	16.67	44	0.73	11
Lack of own capital	14	23.34	29	48.33	17	28.33	63	1.05	6
Lack of credit facility	16	26.67	27	45.00	17	28.33	61	1.01	7
High cost of fish seed	35	58.34	17	28.33	08	13.33	33	0.55	15
High cost of supplementary feed	15	25.00	23	38.33	22	36.67	67	1.12	5
High cost of manure and fertilizer	38	63.34	20	33.33	02	03.33	24	0.40	16
Selling price of fishes not with the expectation	26	43.33	10	16.67	24	40.00	58	0.97	8
Involvement of middleman	32	53.33	13	21.67	15	25	43	0.72	12
Inadequate support from govt.	24	40	17	28.33	19	31.67	55	0.92	9
Lack of storage facility	34	56.67	17	28.33	9	15	35	0.53	14
Lack of insurance facility	30	50	18	30	12	20	42	0.70	13
Lack of quality fish seed	17	28.33	11	18.33	32	53.34	75	1.25	3
occurrence of frequent flood	7	11.67	12	20	41	68.33	94	1.57	1
Problem of drought	21	35	27	45	12	20	51	0.85	10

they could not stock fish seed after water storage in the ponds. The present findings were in line with the findings of earlier studies by *Bhaumik et al. (1988)*, *Balasubramaniam (1988)*, *Meeran and Jayaseelan (1996)*, *Alam (1997)* and *Talukdar (2000)*. The other problem faced by the fish farmers were lack of own capital, lack of credit facility from other institutions. The other problems faced by the beneficiaries were untimely disbursement of subsidy and inadequate credit to meet the cost of inputs like feed, seed, fertilizers etc. This was also found by *Ponnappan (1982)*, *Pounraj (1992)*.

## CONCLUSION

To improve freshwater fish farming practices and to utilize the vast resources FFDA organizes training program at district level, extended credit facilities and provided critical inputs like feed, seeds, fertilizers to the farmers with executing Demonstration Centers at beneficiaries pond. It was found from the above study that majority of the beneficiary (66.67%) perceived that training provided by FFDA was most useful and 72.22 per cent of beneficiaries were highly satisfied by the

trainings provided. It was also identified that majority of the beneficiary (57.43%) perceived that adequate credit facilities were extended by the agency. Majority of the farmers (89.48%) who availed input from the agency perceived that the input was 'most useful' for them. However, untimely disbursement of subsidy was an inhibiting factor for the adoption of scientific fish culture as identified. There is a need of proper coordination between officials of FFDA and bank, So that farmers may get credits and subsidy at right time, timely disbursement of subsidy, decentralizes effective planning and proper functioning of PFCS may increase the production level up to the satisfactory level. Continuation of need based location specific training is utmost important for capacity building of farmers and development of fisheries sector. Concerted extension education efforts were needed to educate the farmers to improve their knowledge level ultimately which will help to increase the rate of adoption of scientific fish culture. To overcome the different constraints identified from the study such as poisoning, poaching, unavailability of adequate quantity of quality inputs at proper time, participatory extension with convergence approach need to be encouraged.

## REFERENCES

- Alam, S.S. (1997). Economic evaluation study of FFDA program for freshwater development. Sonitpur district, Assam, D.F.Sc. Dissertation, CIFE, Mumbai.
- Balasubramaniam, S. (1988). Analysis of technology transfer effectiveness in inland fish farming. Ph. D thesis (Unpub.), TNAU, Coimbatore.
- Bhaumik, U. and Saha, S.K. (1998). Need for modification of composite fish culture technology in West Bengal as perceived by the fish farmers. *Current and Emerging trends in aquaculture*. Daya Publishing House, New Delhi, pp. 348-354.
- Bhaumik, U.; Pandit, P.K. and Karmakar, H.C. (1992). Adoption behaviour of fish farmers towards composite fish culture. *J. of the Inland Fisheries Society of India*. **24** (1): 50-55.
- Chandra, R.S. (1986). Consequences of adoption of fish culture practices by fish farmers, M.Sc. (Ag.) thesis (Unpub.), TNAU, Coimbatore.
- DAHDF (2015). Department of Animal Husbandry, Dairying and Fisheries. Ministry of Agriculture and Farmers Welfare, Government of India.
- Handbook of Fisheries and Aquaculture, (2013). Indian Council of Agriculture Research publication (ICAR), India.
- Majhi, S.K. (2001). Training need assessment of fisheries extension officers, M.F.Sc. dissertation (FW, Aquaculture) (Unpub.), CIFA, CIFE, Mumbai.
- Meeran, N.M. and Jyashelan, M.J.P. (1996). Perceived problems of shrimp farmers. In: *The Proceedings of the Fourth Indian Fisheries Forum*, Nov. 96, pp. 495-49.
- Ponnappan, C. (1982). Fish Farmers Development Agency Program: An analysis. M.Sc. (Ag.) thesis (Unpub.), TNAU, Coimbatore.
- Pounraj, A. (1992). Inland fishermen Cooperative Societies- A critical analysis. M.Sc. (Agri) thesis, TNAU, Coimbatore.
- Talukdar, P.K. (2000). Knowledge level and extent of adoption of composite fish culture practices by aquaculturists in Sonitpur dist. of Assam. M. F. Sc., thesis, CIFE, Mumbai.