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Preference and Credibility of Farm Information Sources by the Fish Farmers of West Tripura

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ABSTRACT

Acceptance and utilization of improved fisheries innovation and technology by fish farmers mainly depend on the sources of information and channels to which they are generally exposed to. Keeping this in mind, the present study was conducted to understand the preference of different information sources used by the fish famers in West Tripura district of Tripura and to study the level of credibility of these sources as perceived by them. An ex-post-facto research design was followed for the study. A sample of 80 respondents was selected from eight villages based on the prevalance of fish farmers in the district. Communication sources and methods play an important role in providing information support to the fish farmers for effectively conducting their fish farming activities. A pre tested structured interview schedule was used to collect primary data by the investigator. The study revealed that among all the personal contact methods, the respondents most frequently depended on localite sources like friends and neighbours for acquiring farm information. Among the group contact method, they maily depended on fellow fish farmers for acquiring farm information. Television was the most frequently source among the mass contact method to assess to different farm information. The level of credibility of information attained was found to be highest in contact with extension personnel followed by interpersonal contact with friends and neighbour. Among mass contact methods, use of television and participation in agri fair/exhibition was found to be highly credible as per the perception of the respondents.

1. Introduction

Tripura is a north eastern hilly state of India bordered by Assam and Mizoram to the east and Bangladesh to the north, south, and west. The state comprises of eight districts *viz.* Dhalai, Khowai, Shipahijala, Gomati, Unakoti, North Tripura, South Tripura and West Tripura. The state has a total water area of 33,217.46 ha of which West Tripura alone covers 3,400.14 ha of water area. Out of total fish production of 62, 1259.10 MT in the state, West Tripura contributed 6,390.99 MT which was about 10.43% of the total production in the state (Anonymous, 2014). Fishery plays a very important role in the state not only for food but also for improvement of the socio-economic condition of the rural people who are living below the poverty line. Ninety five percent of the people in the state consume fish in their daily diets and the state stands first in per capita fish consumtion among all the inland fish producing states of the country (Singh *et al.*, 2016). However, the state faces the shortage of fish production as per the demand for consumption and still depends on states like Andhra Pradesh for importing fish to the state. Despite of all the efforts being put by different institutions and organizations, the state still experience the gap between demand and supply. One of the probable reasons could be the unavailability of reliable sources for farm information of the fish farmers and the information delivery mechanisms used by the institutions.

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This gap in supply and demand for fish attracted fish producers and fish traders of other states like Andhra Pradesh, West Bengal and neighbour country, Bangladesh (Nandeesha, 2008). The fish farmers have to keep pace with the latest technological developments which create a situation wherein they are unable to understand and cope up with the vast amount of information available. Therefore, understanding the preference of farm information sources and the credibility of these sources as perceived by the fish farmers is very essential and hence the present study was conducted.

2. Methodology

The study was conducted during 2017-2018 in West Tripura district of Tripura as the district stands first in terms of fish farmers' population which was 38 % of the total fish farmers in the state and is blessed with vast fishery resources (Debnath *et al.,* 2013). Four blocks out of eight blocks in the district were selected based on the prevalence of the fish farmers *viz.* Mohanpur, Mandai, Jirania and Lefunga. Two villages were then purposively selected from each block based on the population of fish farmers and 10 fish farmers were randomly selected from the respective villages for sampling. Thus, a total of 80 fish farmers were selected for the study. The extent of utilization and credibility of information sources by the fish farmers were studied to see how frequently they used those information sources. The frequency of contact with various sources/channels by the fish farmers was measured with the help of three-point interval scale referred as 'regularly', 'occasionally' and 'never' with an assigned score of 2, 1 and 0 respectively. The credibility of these sources were also studied using three point interval scale as 'highly credible', 'moderately credible' and 'least credible 'with an assigned score of 3, 2 and 1. A pre-tested structured interview schedule was used to collect primary data from the respondents and the data were processed, tabulated and analyzed by using frequency, percentage, mean score, rank, *etc.*

3. Results and Discussion

3.1 Frequency of information source utilization by the fish farmers:

The frequency of information source utilization by the fish farmers presented in Table 1 reveals that friends and neighbours were the most frequently used sources among all the personal contact methods with mean score 0.94. This may be due to the fact that localite sources like friends and neighbours are more easily assessible and available to attain farm related information timely. Contact with progressive fish farmers ranked second with mean score 0.60, followed by contact with extension personnel and office call with mean scores 0.47. Due to the vast practical experiences and competencies, extension personnel and progressive fish farmers act as reliable sources for acquiring farm information.

Faculty/Scientist (IV, 0.44) and personal letter (V, 0.33) were the least frequently used sources of information by the fish farmers. Faculty/Scientists, being involved more in teaching/research activities may not have much personal contact with the fish farmers. As a result, the fish farmers do not tend to seek information from them resulting in poor coordination among them.

Among the group contact methods, discussion with fellow farmers was the most frequently used information source (I, 0.83) by the fish farmers which may be due to their ease in making personal contacts as and when required by them. Training programmes served as the second most frequently used sources by the fish farmers (II, 0.75), followed by field trip (III, 0.58) and group discussion and meeting (IV, 0.34). Due to the participatory approaches employed which enable fish farmers to acquire basic skills and knowledge on different aspects of fisheries, training emerged as the second most frequently used information source among group contact methods by the fish farmers in the study. Field day (V, 0.20) was the least frequently used source for information among the group contact methods.

Among the mass contact methods, Television (I, 1.91) was the most frequently used source for information, followed by participation in agri fair/exhibition (II, 1.83) and newspaper (III, 0.56). Being easily available, ease in understanding farm technology/innovation, broadcasting of different programmes in different regional languages and being more entertaining, television served as the most preferred source of information by the respondents. Internet and radio ranked IV and V with mean score 0.53 and 0.47 respectively. Farm magazine was the least frequently used source of information among the mass contact methods with mean score of 0.31. Newspaper and office call were found to be the least credible sources of information as perceived by the fish farmers. The reasons may be due to lack of complete information, little coverage/content of farm information, unavailability of information in local language and educational status of the fish farmers.

Table 1. Frequency of information source utilized by the fish farmers.

Sl. No.	Information Sources	Frequency of Use						Mean Score	Rank
		Regularly		Occasionally		Never			
		No	%	No	%	No	%		
Personal Contact									
1.	Personal contact with extension personnel	-	-	20	25.00	60	75.00	0.47	III
2.	Personal letter	-	-	5	6.25	75	93.75	0.33	V
3.	Office call	-	-	10	12.50	70	87.50	0.47	III
4.	Contact with progressive fish farmers	1	1.25	32	40.00	47	58.75	0.60	II
5.	Friends and neighbors	4	5.00	34	42.50	42	52.50	0.94	I
6.	Faculty/ scientist	1	1.25	23	28.75	56	70.00	0.44	IV
Group Contact									
1.	Group discussion and meeting	3	3.75	23	28.75	54	67.50	0.34	IV
2.	Training programmes	13	16.25	37	46.25	30	37.50	0.75	II
3.	Discussion with fellow farmers	13	16.25	41	51.25	26	32.50	0.83	I
4.	Field day	1	1.25	14	17.50	65	81.25	0.20	V
5.	Field trip	6	7.50	36	45.00	38	47.50	0.58	III
Mass Contact									
1.	Radio	7	8.75	22	27.50	51	63.75	0.47	V
2.	Television	72	90.00	8	10.00	-	-	1.91	I
3.	Agri Fair/ exhibition	7	8.75	53	66.25	20	25.00	1.83	II
4.	Farm Magazine	3	3.75	7	8.75	70	87.50	0.31	VI
5.	News paper	10	12.50	32	40.00	38	47.50	0.56	III
6.	Internet	12	15.00	10	12.50	58	72.50	0.53	IV

3.2 Credibility of information sources as perceived by the fish farmers:

The data about the credibility of technological information sources as perceived by the respondents are presented in Table 2 which reveals that information obtained from extension personnel were perceived as the most credible information source by the fish farmers among the personal contact methods with a mean score of 2.74. This may be due to the practical experience and knowledge of the extension personnel, their interpersonal relationship with fish farmers and the provision for acquiring farmers' feedback and queries through different participatory extension approaches. Contact with friends/neighbours and contact with faculty/scientists ranked 2nd and 3rd with mean scores of 2.73 and 2.63 respectively, followed by contact with progressive fish farmers (IV, 2.61), personal letter (V, 2.58) and office call (VI, 2.25). Among the group contact methods, training programmes, field trip and group discussion with fellow farmers ranked 1st, 2nd and 3rd with mean scores of 2.56, 2.45 and 2.42 respectively, followed by group discussion and meeting (IV, 2.33). Apart from enhancing technical competencies and skills, training also provides a platform wherein queries and feedback from fish farmers can be easily attended with immediate and prompt response from the trainer. This makes training as one of the most preferred and credible source of information for the fish farmers. However, information obtained from field day (V, 2.06) was perceived as the least credible source among the group contact methods by the fish farmers. In case of mass media contact methods, television ranked 1st with mean score of 2.93 followed by participation in agri fair/exhibition which ranked 2nd with mean score of 2.92. Due to the involvement of both audio and visual media, television makes fish farmers understand farm technology easily with better retension in their memory unlike other farm publications. On the other hand, participation in agri fair/exhibition exposes fish farmers to a wide range of technologies/innovations pertaining to different farming systems pracitised by different progressive farmers and stakeholders thereby ranking second in terms of its credibility as perceived by the fish farmers in the study. Radio, farm magazine and internet ranked 3rd, 4th and 5th with mean scores of 2.76, 2.66 and 2.40 respectively. Among the mass contact methods, newspaper ranked 6th in terms of the credibility of the information available with mean score of 2.14. Use of mass media sources like Television was perceived as the most credible source of information. Same finding was reported by Ladebo *et al.* (1993).

Table 2. Credibility of information sources as perceived by the fish farmers.

Sl. No.	Information Sources	Frequency of Use						Mean score	Rank
		Highly Credible		Moderately Credible		Least Credible			
		No	%	No	%	No	%		
Personal Contact									
1.	Personal contact with extension personnel	59	73.75	21	26.25	-	-	2.74	I
2.	Personal letter	47	58.75	33	41.25	-	-	2.58	V
3.	Friends and neighbors	58	72.50	22	27.50	-	-	2.73	II
4.	Contact with progressive fish farmers	54	67.50	21	26.25	5	6.25	2.61	IV
5.	Office call	35	43.75	31	38.75	14	17.50	2.25	VI
6.	Faculty/Scientist	53	66.25	24	30.00	3	3.75	2.63	III
Group Contact									
7.	Group discussion and meeting	26	32.50	54	67.50	-	-	2.33	IV
8.	Training programmes	46	57.50	34	42.50	-	-	2.56	I
9.	Discussion with fellow farmers	51	63.75	11	13.75	18	22.50	2.42	III
10.	Field day	25	31.25	36	45.00	19	23.75	2.06	V
11.	Field trip	43	53.75	32	40.00	5	6.25	2.45	II
Mass Contact									
12.	Radio	61	76.25	19	23.75	-	-	2.76	III
13.	Television	75	93.75	5	6.25	-	-	2.93	I
14.	Agri Fair/ exhibition	74	92.50	6	7.50	-	-	2.92	II
15.	Farm magazine	53	66.25	27	33.75	-	-	2.66	IV
16.	News paper	33	41.25	25	31.25	22	27.50	2.14	VI
17.	Internet	34	42.40	46	57.50	-	-	2.40	V

3.3 Constraints in assessing farm information by fish farmers

The constraints in utilization of information sources by the fish farmers vary from individual to individual depending upon their social status, family, requirement, family obligation, cultural background and economic status. The constraints were kept under three groups *viz.* technical, operational and miscelleneous. Shortage of leaflets and other farm publications; shortage of farm magazines /newspaper; lack of coverage in newspaper for news on fisheries were among the major technical constraints faced by the fish farmers. These contraints can be mitigated with the publication of more leaflets and other farm publications which are oriented towards the farming system existing in the area with proper and clear illustration. Among operational constraints, difficulty to understand farm magazines/leaflet and other farm publications is the major hindrance which the fish farmers faced which can be minimised by the publication of different leaflets /magazines in different regional languages which are intended for the use by the farming community in a way easily understandable by them. Low accessibility of VEW (Village Extension Workers) and incompatibility of the fish farming packages in farmers' situation were also the major drawbacks experienced by the respondents. Strengthening the linkage between the extension workers and the fish farmers through different participatory extension tools and by the use of different ICT based techniques can bridge the communication gap between them. Introduction of different mobile based applications and web portals to the fish farmers can also help in developing a platform wherein instant as well as delayed feedback mechanism can be developed between them. Other miscllaneous constraints like distance of demonstration sites, lack of success stories /examples in the study area, poor communication facilities and lack of knowledge of contact farmers were faced by the majority of the fish farmers. However, of all the constraints under the aforementioned groups, difficulty in understanding the content of farm magazines/leaflet and other farm publications; shortage of leaflets and other farm publications; distance of demonstration sites; lack of success stories /examples; and persuation of the advice and instructions of researchers and extension officer as being complex are the most common constraints encountered by the fish farmers.

Table 3. Constraints in assessing farm information by fish farmers

Sl. No.	Constraints	Mean Score	Rank
Technical constraints			
1.	Shortage of farm magazines/newspaper	0.77	II
2.	Shortage of leaflets and other farm publications	0.98	I
3.	Difficulty of access to various TV channels	0.30	VI
4.	Lack of internet facilities	0.20	VII
5.	Lack of telephone facilities	0.04	V
7.	Lack of coverage in newspaper for news on fisheries	0.74	III
8.	Lack of overage in TV/Radio for fisheries news	0.05	IV
Operational constraints			
1.	Less usage of local language in TV/radio/newspaper	0.01	VI
2.	Farm magazines, leaflet and other farm publications are too difficult to be understood	1.00	I
3.	Advice and demonstration of researchers and extension officers are too complex to be understood	0.05	III
7.	Inability of extension workers to communicate with farmers	0.01	VI
8.	Less suitability of improved fish farming practices	0.03	IV
9.	Cosmopoliteness of extension workers	0.03	IV
10.	Most of fish farming packages are not compatible in farmers' situation	0.05	III
11.	Low accessibility of VEW when required	0.70	II
12.	Low persuasiveness of fisheries programmes in TV/radio	0.02	V
Miscellaneous constraints			
1.	Lack of time	0.08	VII
2.	Poor communication facilities	0.74	III
3.	Poor education/literacy of respondents	0.45	IV
4.	Distance of demonstration sites	0.84	I
5.	Lack of knowledge of contact farmers	0.74	III
6.	Lack of use of teaching aids by extension workers	0.10	V
7.	Lack of success stories/examples in the study area	0.75	II

Conclusion

The study concludes that among the personal contact methods, the respondents mostly depended on localite sources like friends and neighbours for acquiring farm information followed by contact with progressive fish farmers and extension personnel. Personal letter was the least frequently used source of information by the respondents. Among the group contact method, the respondents mainly depend on fellow fish farmers for acquiring farm information followed by training programmes and field trips. Among the group contact methods, field trip was the least frequently used information source. In case of mass contact method, television and participation in agri fair/exhibition are the most credible sources of information as perceived by the fish farmers whereas farm magazine is the least frequently used information source by the respondents. Among all the sources, television, participation in agri fair/exhibition and contact with friends and neighbours are being perceived as most credible sources by the respondents. Therefore, for dissemination of farm information to the fish farmers, selection of appropriate and relevant communication method is essential wherein feedback from the fish farmers is very crucial. Understanding their preference and their perceived credibility of the information sources would help extension personnel to develop appropriate strategic measures to enhance the level of acceptance of different information sources and their method of delivery. More training on enhancement of teaching and training competencies for the extension workers need to be conducted to enhance the rate of adoption of different technology by the fish farmers. So, in order to minimize the gap between the development of farm technology/innovation and the rate of adoption by these fish farmers, it is very essential to understand their level of preference and credibility towards the information sources.

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