

Full Length Research Paper

Preference of information sources by the fish farming communities of Muktagacha Upazila in Bangladesh

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The main purpose of the study was to investigate the preference of information sources by the fish farmers with the reasons for such preference. Data were collected from seventy (70) randomly selected fish farmers (out of 350) from two villages of Kumargata union of Muktagacha upazila under Mymensingh district. A pre-tested and structured interview schedule was used to collect data during the period of 5 to 21 March, 2015. Farmer's preference on information sources were ascertained through a 4-point rating scale. The majority of the respondents (90%) fell in low to moderate preference category of information sources. Among the fifteen (15) selected information sources; neighbor, television, experienced farmers, radio, input dealer, newspaper, local extension agent and farm laborer were major sources preferred by the majority of the farmers for getting information. While farm publications followed by NGO worker and Upazila Fisheries Officer were least preferred by the farmers as information sources. The main reasons for such preferences; competency of information sources, adequacy, timeliness, personal judgment, material incentive from the source and most importantly credibility of the source (safety, dynamisms, qualification etc.) were rated by the farmers. Different government organizations like Department of Fisheries should strengthen extension campaign to increase group activities of the farmers. This will generate more interaction between famers and the extension personnel. The existing mass media coverage especially television program should be increased. Therefore, it will improve the flow of information among farmers to play a vital role in getting timely information for fish culture.

Key words: Information sources, preferences, neighbor, credibility, competency.

INTRODUCTION

Information sources play key role in communicating innovative technologies to the ultimate users making them not only aware of the useful information but also create interest, promote understanding, assist in mental evaluation and ultimately motivate them for adoption

(Gupta and De, 2011). Besides, information is the most essential element in the decision making process. The value of information is directly dependent on its content, relevance and timeliness. In this context, to access the right information at the right time, users have to be aware

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of the various sources of information, the services being offered and existing information systems (Jain, 2007). Information has been considered as an important input and factor for agriculture and rural development (Garforth et al., 2003). Information which is coming from outside the local area can bring fresh ideas, awareness of new opportunities. Knowledge derived from formal research, or developed in other localities, can stimulate new thinking and practices (Figueroa et al., 2002). So it is evident that for agricultural development proper dissemination of information is highly necessary.

In Bangladesh among all other sectors, Agriculture, Forestry and Fisheries occupied 18.70% Gross Domestic Product (GDP) share of total Bangladesh economy. Now Bangladesh fisheries sector are contributing more to the country's GDP, that is, 4.37% of national GDP and 22.7% of agricultural GDP (BBS, 2013). The country's export earnings from this sector are 2.84% (EPB, 2013). But the demand of fish is increased due to increase in population. The projected demand (4.79 metric ton) for fish in Bangladesh is higher than the projected supply (3.79 metric ton) in the year 2015 (Sakib et al., 2015). Also during 2003 to 2012, percent of the total export of fish and fishery product are gradually reduced from 5.10 to 2.01 in this country (DoF, 2013). This indicates that the supply of fish in domestic markets and export earning is decreasing. In that case, only production of culture fisheries can be increased than capture fisheries because of management hurdle in open water resources. In the recent past, fisheries sector have shown a major shift from traditional production system to modern systems (Karim et al., 2010). So, introduction of new technologies is now a very common feature.

The flow of information should be understandable, well interpreted, accepted and liked by the users and also be as fast as possible. In this case, information sources have a vital role to carry the messages of improved fish culture practices from sources to the ultimate users. Farmers usually receive information from various sources to accomplish their farming needs. The preferences of information sources vary from farmer to farmer. But most of the extension organizations have limited scope and time to conduct research on how the preference of different information sources influence the dissemination of new improved technologies. For identifying the reasons of preference, the present study was conducted based on the following objectives: (i) To identify the information sources preferred by the farmers in receiving farm information; (ii) To examine the reasons for preference of information sources made by the farmers.

MATERIALS AND METHODS

Study area

The study was conducted at two villages namely Dowakola and malotipur of Kumargata Union of Muktagacha upazila under Mymensingh district. Muktagacha Upazila was purposively selected

because fish culture is practiced in an extensive way here and people are highly dependent on pond fish culture as their major occupation. Besides fish farmers are easily available here due to their local background (9650 fish farmers and 6718 ha water bodies; Official data, 2013). The selection was made on the basis of suggestions made by Upazila Fisheries Officer (UFO) and other relevant officials of Muktagacha Upazila.

Population and sample

The total number of fish farmers in these two villages was 350 which constituted the sampling population. In the second step 20% of the fish farmers of each of the villages were selected as sample. Seventy (70) fish farmers were selected and constituted the sample for this study.

Data collection technique

Both qualitative and quantitative means of data collection procedures were used in the study. Data were collected through the pre-tested interview schedule by face-to-face interview procedure during 5 to 21 March 2015. The interviews, lasting about one to two hours each, focused on identification of information sources preferred by the farmers with the reasons behind their preference. Cross-check interviews were conducted with Sub-Assistant Agriculture Officer (SAAO) and relevant non-government organization (NGO) workers. Data from questionnaire interviews were coded and entered into SPSS software package for analysis.

Measurement of focus variable

Examination of preference of information sources by the fish farmers was the main objective of the study. Fifteen (15) selected information sources were identified during pre-testing of the interview. A four point rating scale weighing 0, 1, 2, 3 for no preference, little preference, moderate preference and high preference respectively was used to explore the extent of preference of information sources. So the possible score of each respondent ranged from 0 to 45 for 15 sources. According to the possible score, the farmers were categorized into three group considering equal score in each group, that is, low preference group (up to score 15), moderate preference group (score 16 to 30) and high preference group (score above 30).

For better understanding of the extent of preference of information source, Computed Preference Information Source Score (CPISS) was developed to rank order the information sources.

$$CPISS = R_{hp} \times 3 + R_{mp} \times 2 + R_{lp} \times 1 + R_{np} \times 0$$

Where, R_{hp} = Respondents with high preference; R_{mp} = Respondents with moderate preference; R_{lp} = Respondents with low preference; R_{np} = Respondents with no preference.

So the possible score of each information source could range from 0 to 210 for seventy respondents. Here, each information source score were measured according to the preference given by the respondents. Then the information sources were numbered in a sequential order considering their CPISS where information source with highest CPISS were given number one and sequentially the other information source were given a specific rank number.

The reasons for preference of information sources orated by the fish farmers were determined by considering the number of citations formulated on the basis of pre testing experience and consultation with the relevant field officers working with the fish farmers.

Table 1. Distribution of respondents according to their overall preference of information sources.

Characteristics	Farmer's categories (scores)	No.	Percent	Mean	Standard deviation
Preference of information sources	Low (up to 15)	28	40.0	22.67	7.79
	Moderate (16-30)	35	50.0		
	High (>30)	7	10.0		
	Total	70	100.0		

Source: Field Data, 2015.

Table 2. Rank order of information sources on the basis CPISS.

Information sources	Extent of preference				CPISS	Rank order	
	High	Moderate	Low	No			
Personal contact	1.Upazila Fisheries Officer	0	10	14	55	44	13
	2.Local extension agent	16	7	3	44	73	7
	3.Input dealer	0	25	29	16	79	5
	4.NGO workers	11	5	0	54	43	14
	5.Experienced farmers	16	27	10	17	112	3
	6.Farm laborer	0	19	34	17	72	8
	7.Neighbours	54	9	7	0	187	1
Group contact	8.Group discussion meeting	6	11	8	45	48	12
	9.Demonstration meeting	11	13	0	46	59	10
	10.Farmer's meeting	13	10	3	44	62	9
	11.Fair and exhibition	5	20	0	45	55	11
Mass contact	12.Newspaper	20	4	6	40	74	6
	13.Radio	16	16	11	27	91	4
	14.Television	42	14	0	14	154	2
	15. Farm publications	5	3	8	54	29	15

Source: Field Data, 2015.

RESULTS AND DISCUSSION

Preference of information sources

Table 1 suggests that majority of the respondents (90%) fell in the low to moderate category of preference of information sources. On the other hand only 10% respondents belong to the high category of preference of information sources. This means that farmers in the study area have limited exposure to the information sources. In order to measure the extent of preference to each of the information sources a CPISS was calculated and presented in Table 2.

Table 2 showed that fish farmers highly preferred neighbor for getting information compared to other source of information. This might be due to easy availability of neighbors in the locality on the time of their information need. Moreover, majority of the farmers in the locality are progressive fish farmers. So they can act as a good source in emergency need of information. As the locality have electricity facility so television is very common in most of the houses. So, they can watch different agriculture and fishery related local program like *Mati o manush*, *Hridoy e mati o manus*, *Banglar krishi* etc easily for getting information. Sometimes television acts as

good source of getting emergency information especially when flood or any other natural disasters is coming. Even warning of any disease widespread is sometimes shown in television. They also opted to experienced farmers and input dealers for getting important information as they can easily contact with them due to their availability in the local area. Newspaper also acts as good information for those having certain amount of education. Farm publications got the least preference for getting information. This might be due to the lack of source to get such publications. Also the fish farmers are not highly educated in the area. So they cannot read and understand the publications clearly. Due to their abstaining to the NGOs, contact with NGO workers is very less. As the fish farmers of the locality do not move too much to the Upazila fisheries office their contact with the upazila fisheries officer is also to a lesser amount.

Reasons for preference of information sources

The farmers mentioned the following reasons for making preference of the sources of information. The major reasons of each information source for preference along with number of citations are presented in Table 3.

Table 3. Identifying reasons for preference of information source.

Serial no.	Reasons for preferences	No. of citations
Upazila fisheries officer		
1	Well acquainted with the field problems	10
2	High knowledge and technically sound	6
Local extension agent		
1	Technically sound and possesses improved knowledge and skills	9
2	Provides good news about fish farm	7
Input dealer		
1	Easily available in the locality	22
2	Provide good and timely suggestions	18
NGO workers		
1	Provide credit facilities	7
2	Easily available and inform about other activities too	5
Experienced farmer		
1	Can understand problem easily due to rich local knowledge	23
2	Always available and provide good suggestions	11
Farm laborer		
1.	Always available	20
2.	Experienced about the working problems	17
Neighbor		
1	Always available on immediate need	20
2	Credible and give material assistance	20
3	Provide good suggestions due to known situation	18
Group discussion		
1	Learned easily as opportunity for sharing dialogue	12
2	Sharing of message to solve the problem	11
Demonstration meeting		
1	Opportunity of sharing experience with others	6
2	Highly reliable and authentic	6
Farmers' training session		
1	Share experiences with participants and trainers	10
2	Offer knowledge on various aspects of farming	6
Exhibition and fair		
1	Understanding and learning by seeing	15
2	Highly motivational and increases confidence	7
Newspaper		
1	Supply various agricultural information	15
2	Highly effective and timely	8
Radio		
1	Latest information on various aspects of farming	14
2	Expert's opinion is available	12
Television		
1	Highly motivational and informative program telecast	28
2	Expert's opinion available with authenticity	13
3	Latest and needed information available	9
Farm publication		
1	Expert opinion is available	10
2	Can easily recall	6

Source: Field data, 2015.

From Table 2 we know that neighbors were highest preferred by the fish farmers for getting information

followed by television, experienced farmers, radio and input dealer. We tried to find out the reasons behind these preferences of information source as shown in Table 3. There were some common reasons behind these highly preferred sources. If we analyze the reasons we can see that most farmers consider credibility and availability of the source in making decision regarding their preferences. Farmers want trustworthy and reliable source as their resources to solve a problem is limited. So they try to maximize the use the resource is best possible way. They cannot waste any of it. That's why they need such source which are dependable and can be trusted for any kind of information. For this, farmers rely more on sources that are timely available in the locality on emergency. Sources those are familiar with the local problems can give better solution than the external sources. Beside this, farmers consider quality of information delivered by a source. For this reason, farmers prefer television and radio for getting information. Television and radio telecast programs having expert opinions. Television also has the visual benefit besides hearing. So, farmers can rely more on information. In addition, availability of electricity and lesser cost of television make it easy for the farmers to buy and enjoy the television programs.

Farmers like to be in the locality. They do not move much outside their area. This reduces the possibility of contact with the upazila fisheries officer. Most of the time, they are not available in the urgent situation. For the very same reason Farmers do not prefer NGO workers. They go to the Upazila Fisheries office when complicated problems arise that cannot be solved by the local people and need expertise. Due to their low level of education farmers prefer farm publication lesser than the others as they cannot read it. They only use it to recall some specific information. Farmers prefer group contact information sources only when they need to share experiences and be sure to use any new technologies.

CONCLUSION AND RECOMMENDATIONS

The study shows that there is enough scope to improve the utilization of information source. Farmers still prefer local sources which are something not so authentic because of lack of scientific knowledge. More scientific information source were less preferred and the gap between the source and farmer should be reduced. To make other sources more effective motivational activities like farm and home visit, mass campaign, demonstration activities etc. should be increased by the government organizations working with the fisheries sector. The field level extension workers of Department of Fisheries (DoF) should be well acquainted with the local problems and needs, so that they can satisfy the information need of the farmers. Besides, mass media like television and newspaper should be used more to disseminate

emergency information as well new information with credibility. On the other hand, there is extensive scope to improve the present condition of farmer's information source management through comprehensive campaign including extension workers, field supervisors and fisheries officer of GOs and NGOs as well. As the research is done in a limited area, it should be undertaken in other parts of the country to make more specific and appropriate policy for further improvement of the fisheries sector of the country.

Conflict of Interests

The authors have not declared any conflict of interests.

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