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Research Paper

## A STUDY ON HOW PEOPLE ARE INFLUENCED TO START FISHERIES ACTIVITIES IN PAKUNDIA UPAZILA OF KISHOREGANJ, BANGLADESH

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The research work was conducted to get clear understanding about those factors or media which influenced the people to start fisheries activities. Data were collected through questionnaire survey. Different types of media (Radio, Television, Newspapers, Extension agents, NGOs and other private organizations) have been playing vital role to motivate people for involving in fisheries activities. However, which type of factor is effectively inspired them to be involved in fisheries activities is not clearly known. In order to get clear understandings about this, 18 villages Under 5 unions of Pakundia upazila in Kishoreganj were selected as the study area. The result showed that 92% of the studied people were involved in fish culture and 4% were involved in fish seed production or fish and fish seed marketing. 50% of studied people were inspired by following others and only 8% by the influence of the YDP. More people have been involved in fish culture and jolmohal leasing because these are comparatively easier and profitable than others. The result of this research conclude that than other existing media or factors more people were inspired in fisheries activities through inspired by others people who had already been involved in fisheries activities.

**Keywords:** Fisheries activities, Media, Fish culture, Jolmohal leasing, Socioeconomic condition

### INTRODUCTION

From time immemorial, Fishes are an important resource worldwide as well in Bangladesh especially for consumption and fish still constitute the major part of the diet. In Bangladesh, the yearly demand of fish per head is 20.44 kg, but the quantity of yearly intake of fish is 18.94 kg (DoF, 2012). So aquaculture or culturing fishes

in ponds and other water bodies is needed to reach the target of fish production for our own consumption and export because capture fishery alone cannot fulfill this demand. There are many sectors of fisheries (fish culture, fish seed production, fish transportation, fish preservation and processing, fish and fish seed marketing, fish feed manufacture and selling, fish medicine

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manufacture and selling, fisheries crafts and gears manufacturing and selling, etc.) in which people are involved with directly or indirectly for their livelihood and other commercial purposes. About 14.5 million people (10%) of the total population of Bangladesh are involved directly or indirectly with the fisheries sector for their livelihood. There are 1.28 million fishermen (0.77 million inland, 0.51 million marine), 4.23 million fish farmers (3.08 million fish farmers, 1.15 million shrimp farmers) (DoF, 2012). Different agents such as Radio, Television, Newspapers, Extension agents, many government fisheries projects, NGOs and other private organizations have been playing a vital role for the motivation of people to be involved with fisheries and to start fish farming or other fisheries activities. The rates of increase of total fish production in Bangladesh are 6.07, 7.02, 7.20, 6.14, 5.70, 5.20, 5.42, 5.08, 4.79, 5.05, 5.39, 7.32 in the financial years of 1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002-2003, 2003-2004, 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010 respectively (DoF, 2011). This increasing rate of fish production indicate either increase in the use of advanced technologies by the fisheries community or the increase in the number of peoples' involvement in different fisheries activities. The total number of people involved in fisheries activities is increasing day by day in Bangladesh. But it is not yet known very well about how people are inspired to be involved in fisheries activities. This research work helps to get clear understandings about it and takes a part in the development of fisheries in Bangladesh especially in the Kishoreganj district. The research work was conducted to analyze the influence of different agents or media for inspiring people to involve in the fisheries activities and to find out the age

groups, the educational qualifications of the people the inspiration media and the year of inspiration of those people who are already involved in fisheries activities.

## **MATERIALS AND METHODS**

The selected study areas were 18 villages under 5 unions of Pakundia upazila of Kishoreganj district in Bangladesh. The period of the present study was January to September, 2011.

### **Selection of the Target Groups**

Fish farmers, hatchery owners, arotdars, fish traders, feed manufacturers and sellers and the owners of the jolmohals (by leasing) were selected as the target groups. For this study the data were collected from 50 randomly selected individuals from the target groups.

### **Data Collection Method**

#### **A) Primary Source**

The primary data was collected from 50 individuals including fish farmers, fish traders, fish feed manufacturers and sellers, hatchery owners and the jolmohal leasers in 18 villages of Pakundia Upazila and key informant's through questionnaire survey, interviewing (personal and telephone interviewing).

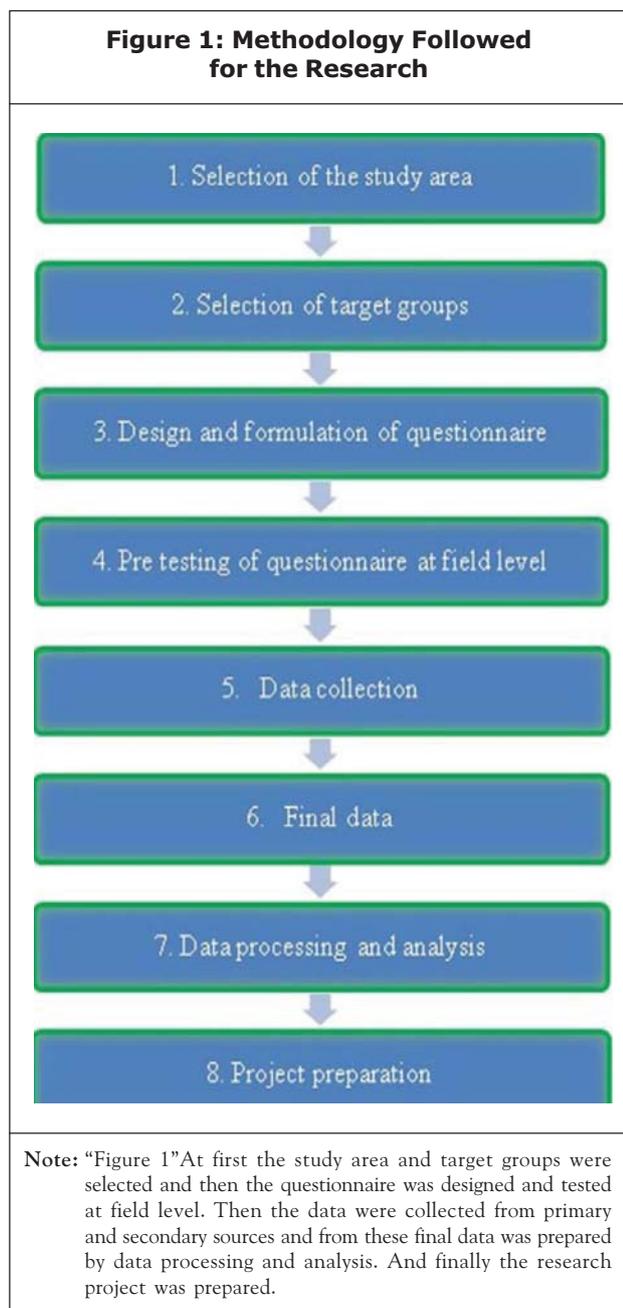
#### **B) Secondary Source**

Secondary data was collected through literature and publications, quarterly and annual reports available from Upazila Fisheries Office, Jamuna Bohumukhi Somaj Kallan Songstha for justification of the collected data through survey.

### **Data Processing and Analysis**

After the collection of data, All the data were edited, coded, summarized and scrutinized carefully and recorded. Finally, relevant tables and graphs were prepared in accordance with the

objectives of the study for understanding of the data. Data presented mostly in the tabular form. SPSS-15.0 version and the Microsoft Office Excel were used for the data analysis and to prepare the necessary charts, graphs and diagrams. The design of the survey for the research involved in some methodologies (Figure 1).

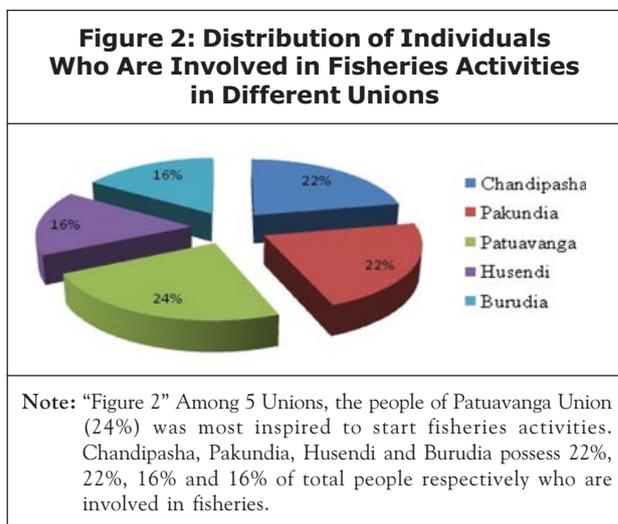


## RESULTS AND DISCUSSION

Pakundia Upazila is rich in physical fisheries resources. There are a lot of culture ponds, floodplains, jolmohals, beels, etc.

### A) Distribution of Individuals in Different Unions

Chandipasha, Pakundia, Husendi and Burudia possess 22%, 22%, 16% and 16% of total people respectively who are involved in fisheries. Among 5 Unions, the people of Patuavanga Union (24%) are most inspired to start fisheries activities (Figure 2).



### B) Fisheries Activities in Different Unions

92%, 4%, 42%, 6%, 4% of total individuals are involved in fish culture, hatching, jolmohal leasing, feed manufacture and selling and fish and fish seed marketing respectively (Table 1). Most of the fish culturists are in Patuavanga Union. Chandipasha Union has remarkable number of individuals involved in fish culture. The hatchery owners and the fish feed manufacturers and sellers are in Chandipasha Union. The Jolmohal leasers are mostly in Pakundia Union. The fish and fish seed marketers are distributed in Chandipasha and Burudia Unions equally. In this

**Table 1: Individuals Involved in Fisheries Activities in Different Unions of Pakundia Upazila**

Unions	Individuals Involved in Fisheries Activities				
	Fish Culture	Hatching	Feed Manufacture and Selling	Jolmohal Leasing	Fish and Fish Seed Marketing
Chandipasha	11	2	3	5	1
Pakundia	8	0	0	11	0
Patuavanga	12	0	0	3	0
Husendi	7	0	0	1	0
Burudia	8	0	0	1	1
Total	46	2	3	21	2

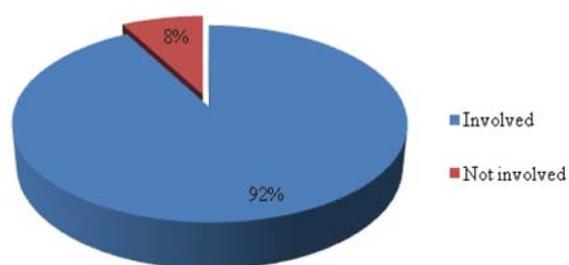
table, the total number of individuals involved in fisheries activities is more than 50, because some of the individuals are involved in two or more working fields of fisheries activities at a time.

**C) Fish Culture**

**Involvement in Fish Culture**

92% of total people are involved with fish culture and only 8% are totally not involved with this (Figure 3).

**Figure 3: Involvement of the Individuals in Fish Culture**

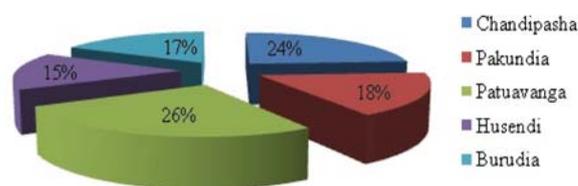


Note: "Figure 3" Among 50 people, 92% of total people are involved with fish culture and only 8% are totally not involved with this.

Among five Unions, 24%, 18%, 26%, 15% and 17% of total people who are involved with fish culture belong to Chandipasha, Pakundia,

Patuavanga, Husendi and Burudia Unions respectively (Figure 4). The people in Patuavanga and Chandipasha Unions were most influenced to culture fish in Pakundia Upazila.

**Figure 4: Involvement of Individuals in Fish Culture in Different Unions**

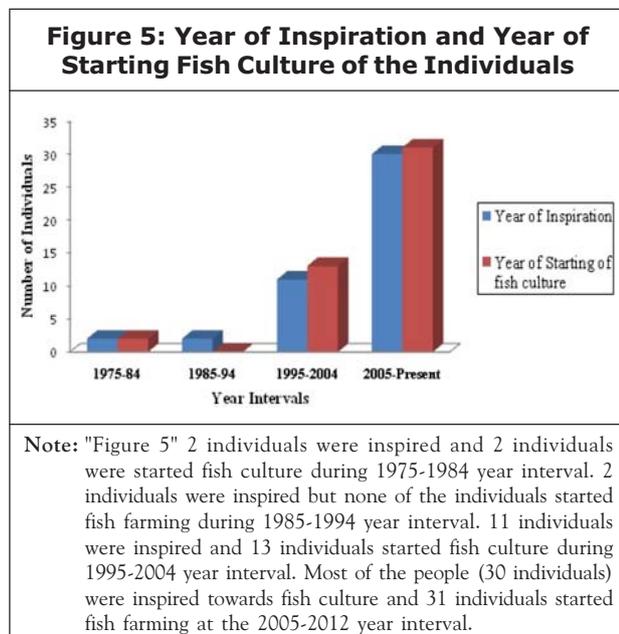


Note: "Figure 4" The people in Patuavanga (26%) and Chandipasha Unions (24%) were most influenced to culture fish in Pakundia Upazila. Among five Unions, 18%, 15% and 17% of total people who are involved with fish culture belong to Pakundia, Husendi and Burudia Unions respectively.

**Fish Culture: Year of Inspiration and Starting**

At the 1975-1984 year interval, 2 individuals (4%) were inspired towards fish culture and 2 individuals (4%) were started fish culture. At the 1985-1994 year interval, 2 individuals (4%) were inspired towards fish culture but none of the individuals started fish farming. 22%, i.e., 11 individuals were inspired towards fish culture and 13 individuals (26%) started fish culture during 1995-2004 year interval. Most of the people, i.e.,

30 individuals were inspired towards fish culture and 31 individuals (62%) started fish farming at the 2005-2012 year interval within only 8 years (Figure 5). This result showed that the number of individuals inspired towards fish culture and starting fish culture have been increasing gradually year after year. Generally after being inspired, the people take some time to think or plan for the starting of the culture farms. This may take from weeks to several months or even several years according to the facilities, economic conditions or any other constraints related to fish culture.



**Inspiration for Fish Culture**

Most of the people (32%) were mostly inspired to start fish culture by following others. 22%, 18% and 16% of total fish farmers were inspired by radio and television, family and personal contact respectively. The NGOs and the YDP (Youth Development Program) had inspired 14% and 8%, respectively and 10% of the people have not inspired to start fish culture (Table 2). The total

**Table 2: Different inspiring agents for Fish Culture**

Inspiring Agents	No. of Individuals	Percentage (%)
Family	9	18
Following Others	16	32
Personal Contacts	8	16
Radio and Television	11	22
NGOs	7	14
YDP	4	8
Not inspired	5	10

number of the individuals are more than 50 because many people are influenced towards fish culture by more than one inspiring agents simultaneously.

Most of the people (22%) are influenced to culture fish by singly following others. It means that most of the people to be inspired if they observe others to make benefits by culturing fish in the ponds. Among the others, 14%, 12%, 10% and 8% are influenced by only their family members, only by NGOs, by personal contacts and by the YDP. The television has less influence singly but in the combination with others it has total 22% influence for fish culture. Only 2% started fish culture for hobby and 8% were not interested in fish culture (Table 3).

**D) Hatching/Fish Seed Production**

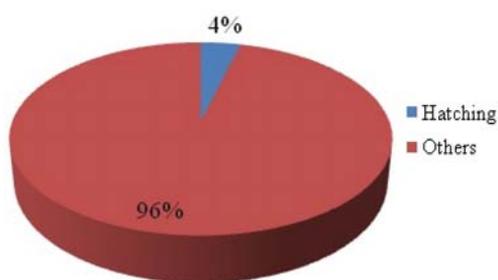
**Involvement in Hatching**

Among 50 people, only 4% of individuals are involved with fish hatching and the rest 96% are not involved (Figure 6). Both of them are hatchery owners which are existed in Pakundia Upazila.

**Table 3: Different Inspiring Agents for Fish Culture (Distinctive)**

Inspiring agents	No. of individuals	Percentage (%)
Family	7	14
Following Others	11	22
Personal Contacts	5	10
Television	1	2
NGO	6	12
YDP	3	6
Family and Following Others	1	2
Family and TV	1	2
Following Others and Personal Contacts	1	2
Following Others and TV	4	8
Personal Contacts and TV	2	4
Radio and TV	1	2
TV and NGO	1	2
TV and YDP	1	2
Hobby	1	2
Not Inspired	4	8
Total	50	100

**Figure 6: Involvement of Individuals with Hatching**



Note: "Figure 6" Among 50 people, only 4% of individuals are involved with fish hatching and the rest 96% are not involved.

**Hatching: Year of Inspiration and Starting**

One of the individuals was inspired in 1990 and started the hatchery in 2000. Another person was

inspired in 2008 and started the hatchery in 2010.

**Inspiration for Hatching**

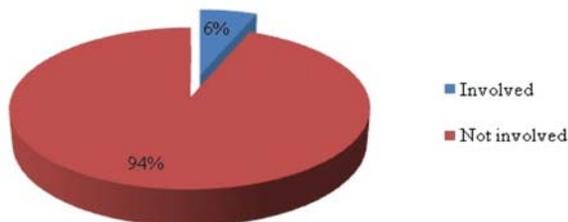
Among the two individuals, involved with hatching, one person was inspired by personal contacts with an experienced person and another person was inspired by his family and not by following others, radio, television, NGOs, YDP or others.

**E) Fish Feed Manufacture and Selling**

**Involvement in Fish Feed Manufacture and Selling**

Among 50 people, only 6% are involved with fish feed manufacture and selling and the rest 94% are not involved. All the 3 individuals are in Chandipasha Union (Figure 7).

**Figure 7: Involvement of Individuals in Feed Manufacture and Selling**



Note: "Figure 6" Among 50 people, only 4% of individuals are involved with fish hatching and the rest 96% are not involved.

**Feed Manufacture and Selling: Year of Inspiration and Starting**

Among 3 individuals, 2 individuals were inspired and started the fish feed manufacture and selling at the year interval 1995-2004 and 1 individual at the interval 2005-2011 (Table 4).

**Table 4: Year of Inspiration and Starting for Feed Manufacture and selling**

Year of Inspiration and Starting	No. of Individuals	Percentage (%)
1995-2004	2	67
2005-2011	1	33
Total	3	100

**Inspiration for Fish Feed Manufacture and Selling**

Three individuals who are engaged in fish feed manufacture and selling activities were inspired by personal contacts, family members and following others respectively (Table 5).

**Table 5: Inspiration for fish feed manufacture and selling**

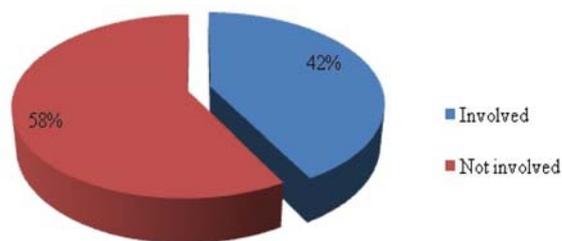
Inspiring agents	No. of individuals	Percentage (%)
Family	1	33.3
Personal contacts	1	33.3
Family and following others	1	33.3
Total	3	100

**F) Jolmohal Leasing**

**Involvement in Jolmohal Leasing**

Among 50 individuals, 42% were involved in Jolmohal leasing and rests 58% were not involved (Figure 8). The result indicates that a good portion of the individuals engaged in fisheries activities were involved in the Jolmohal leasing.

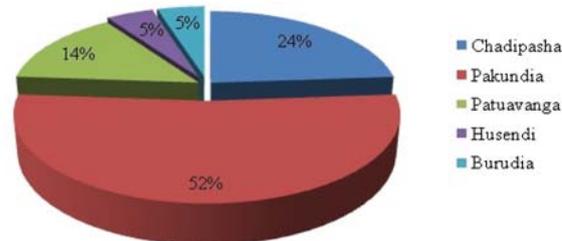
**Figure 8: Involvement of Individuals in Jolmohal Leasing**



Note: "Figure 8" Among 50 individuals, 42% were involved in Jolmohal leasing and rests 58% were not involved.

Among Jolmohal leasers, most of the individuals (52%) belong to Pakundia Union. There are 11 individuals (about 52%) in Pakundia Union who are involved with Jolmohal leasing. And the rest 24%, 14%, 5% and 5% belong to Chandipasha, Patuavanga, Husendi and Burudia Union (Figure 9).

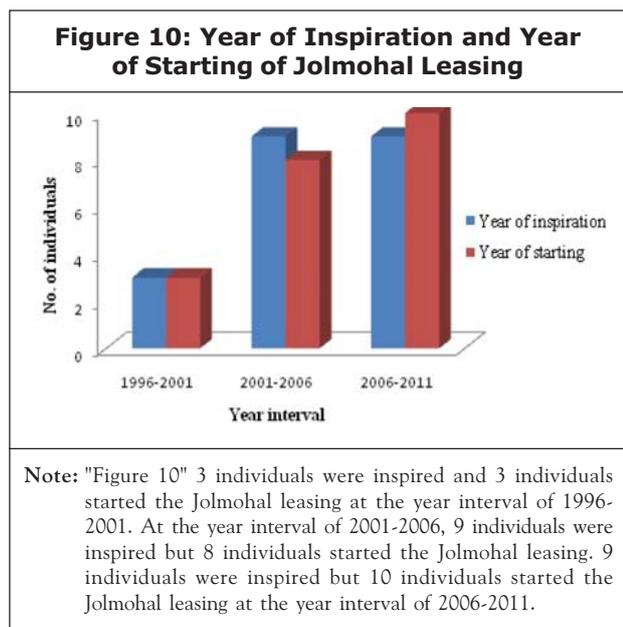
**Figure 9: Involvement of Individuals in Jolmohal Leasing in Different Unions**



Note: "Figure 9" Most of the individuals (52%) who are involved with Jolmohal leasing belong to Pakundia Union. And the rest 24%, 14%, 5% and 5% belong to Chandipasha, Patuavanga, Husendi and Burudia Union.

**Jolmohal Leasing: Year of Inspiration and Starting**

Among 21 individuals, 3 individuals were inspired and 3 individuals started the Jolmohal leasing at the year interval of 1996-2001. At the year interval of 2001-2006, 9 individuals were inspired but 8 individuals started the Jolmohal leasing. 9 individuals were inspired but 10 individuals started the Jolmohal leasing at the year interval of 2006-2011 (Figure 10). The results indicate the higher tendency of the individuals to start Jolmohal leasing in the present decade. These can be for the increase of awareness about the fisheries activities and their benefits. People in the past were not aware like the people at present.



**Inspiration for Jolmohal Leasing**

Among the 21 jolmohal leasers, 16% were inspired by both family and by following others. Each of the inspiring agents- personal contacts, NGOs and radio and television have inspired 2 individuals (4%). Only one individual (2%) was inspired by the YDP (Table 6). The total number of the individuals is more than 50 because many

**Table 6: Different Inspiring Agents for Jolmohal Leasing**

Inspiring agents	No. of individuals	Percentage (%)
Family	8	16
Following others	8	16
Personal contacts	2	4
NGO	2	4
Radio and Television	2	4
YDP	1	2
Not inspired	29	58

people are influenced towards fish culture by more than one inspiring agents simultaneously.

The Table 7 shows nearly similar results having same influences of the family, following others and personal contacts. There are small changes in the results of NGOs, radio and TV and YDP (Table 7).

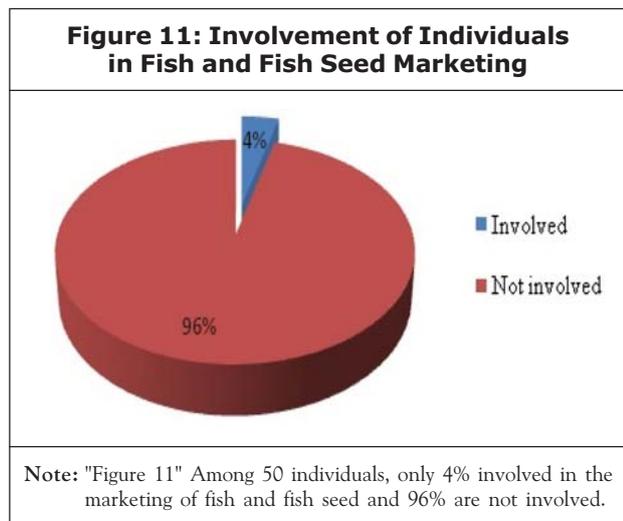
**Table 7: Different Inspiring Agents for Jolmohal Leasing (Distinctive)**

Inspiring agents	No. of individuals	Percentage (%)
Family	7	37
Following Others	7	37
Personal Contacts	2	11
NGO	1	5
TV & NGO	1	5
TV & YDP	1	5
Total	19	100

**G) Marketing of Fish and Fish Seed:**

**Involvement in Marketing of Fish and Fish Seed**

Among 50 individuals, only 4% involved in the marketing of fish and fish seed and the other 48 people (96%) are not involved (Figure 11). One



of the individuals belongs to Chandipasha and other belongs to Burudia Union.

**Marketing of Fish and Fish Seed: Year of Inspiration and Starting**

One of the individuals (50%) was inspired and started the marketing of fish and fish seed in the year 1990. Another individual (50%) were inspired in 2004 and started marketing in 2007.

**Inspiration for Marketing of Fish and Fish Seed**

Among two individuals, one of the individuals (50%) was inspired by his family and another one (50%) was inspired by personal contacts.

**H) Inspiring Agents for the Involvement of People in Fisheries Activities**

Among 50 individuals, 50% was inspired by following others who are already involved in fisheries activities. They at first observed the activities of the others and their benefits and then inspired to start fisheries activities. 34%, 22%, 18%, 16% and 8% of total individuals were inspired by family, radio and television, personal contact, NGOs and YDP (Youth Development Program) respectively. Only one individual (2%) is not inspired but started fisheries activities for

his hobby or attraction for fish (Table 8). The total number of the individuals is more than 50 because many people are influenced towards fish culture by more than one inspiring agents simultaneously.

**Table 8: Different Inspiring Agents for Involvement in Disherries Activities**

Inspiring agents	No. of individuals	Percentage (%)
Family	17	34
Following others	25	50
Personal contacts	9	18
Radio and Television	11	22
NGOs	8	16
YDP	4	8
Hobby	1	2

The table shows the distinctive measures of the influence of inspiring agents to make people

**Table 9: Different Inspiring Agents for Involvement in Fisheries Activities (Distinctive)**

Inspiring agents	No. of Individuals	Percentage (%)
Family	8	16
Following Others & Television	4	8
Personal Contacts & Television	3	6
Radio & Television	1	2
Television & NGO	1	2
Television & YDP	1	2
Following Others & NGO	3	6
Family & NGO	4	8
Following Others	10	20
Personal Contacts	2	4
YDP	3	6
Hobby	1	2
Family & Following Others	4	8
Family & Television	1	2
Following Others & Personal Contacts	4	8
Total	50	100

starting fisheries activities. Most of the individuals (20%) were influenced by following others. The family has a good influence over the individuals and 16% were inspired by their family. People are more influenced by a simultaneous combination of influence of different agents and a total of 18 individuals were influenced to start fisheries activities by the combination of different agents (Table 9).

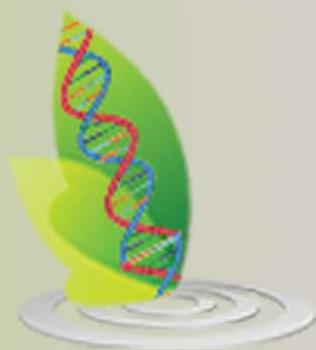
## CONCLUSION

Bangladesh is very rich in fisheries resources as there are many rivers and a lot of water-bodies for highly beneficial fish culture. More people should be involved in various fisheries activities to use these resources sustainably. More involvement of people in various field of fisheries are very much important for improving livelihood and socioeconomic development of rural people, reducing poverty and solving malnutrition and

unemployment problem. And by doing this, the excess people of Bangladesh may be converted into assets of this country. The extension workers can set up various techniques to motivate the people of different ages and educational levels towards different fisheries activities by using the concepts from the research work.

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