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Participation of Rural Youth in Fish Farming Activities

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Abstract

The main purposes of the study were to determine the extent of participation of rural youth in fish farming activities and to explore the relationships between the selected characteristics of the rural youth and their participation in fish farming activities. Field work for the study was conducted in Dewanganj upazila under Jamalpur district. Data were collected randomly from 99 rural youths out of 277 rural youths. Fish farming activities was measured by considering five aspects namely pond preparation, fry release, disease control, fish harvesting and fish marketing. The possible scores of extent of participation of rural youth could ranged from 0-45 while observed scores ranged from 11-36 with an average of 23.88 and standard deviation of 5.85. It was found that 34%, 51% and 14% had low, medium and high participation in fish farming activities, respectively. Pearson's Product Moment Correlation Co-efficient (r) was used to explore the relationships between the concerned variables. The correlation analysis showed that level of education, annual family income, training experience, extension media contact, cosmopoliteness, knowledge on fish farming activities and social participation had positive and significant relationships with the extent of participation of rural youth in fish farming activities.The above findings lead to recommend that to increase the participation of rural youth in fish farming activities the concerned authorities should take proper steps considering the significant characteristics of the rural youth and in particular the aspects in which their participation is specifically low.

Keyworks: *Participation, rural youth, fish farming.*

Introduction

Fisheries sector is an important sub-sector of the national economy in Bangladesh. About 12 million people directly or indirectly depend on fisheries of which 1.2 million people are dependent full time on fish and fishing activities (DoF, 2008). Fish is an essential staple food for the people of Bangladesh and plays an important role in the economy of the country. More than 63% of animal protein supply comes from fish. The contribution of the sector to gross domestic product, foreign exchange earnings and employment is also significant. It accounts for 4.92% of GDP and 5.71% of export earnings of the country (DoF, 2008). This fisheries sector is contributing importantly in the country's economy by creating job opportunities for unemployed people, earning foreign currency, income generation, improving nutritional status and ultimately alleviating poverty through engaging people, especially, rural youth in fish farming activities. Moreover, fisheries are the third important export sector which contributing about 5.71% of the country's total export earning (Islam, 2007).

Bangladesh has been a land of young people who dwell mostly live in rural areas within an agricultural environment. The youth are the most strong, self-confident, creative and productive guiding force of any nation. The endless potential of the youth could be

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utilized for their own, for the society and for the nation. Youth, being a stage in the life of human being marked by transition from dependent childhood to independent and responsible adulthood. National Youth Policy declared very recently that the population belonging to the age group of 18-35 should be regarded as youth (Khan, 2005). The Ministry of Youth Sports and Culture considers the people in the age category of 15-30 years as youth. At present, Bangladesh accounts nearly 150 million people with 1034 people live per square kilometer, one of the highest densities in the world (BBS, 2008). However, individual age between 15 to 35 years constitutes about 35% of the total population. Most rural youth are either employed (waged and self-employed) or not in the labour force. Rural youth play a very important role in country's fishery sector. Above of this discussion, we can say that rural youth are fully involved in fisheries sector; there are also vast potentials for rural youth to contribute meaningfully in the fisheries sector. In view of the foregoing discussion, the study aimed (i) to determine and describe the extent of participation of rural youth in fish farming activities; (ii) to determine the relationships between the selected characteristics of the rural youth and their extent of participation in fish farming activities.

Methodology

The study was conducted in two unions namely, Chukajani and Chukaibari of Dewanganj upazilla under Jamalpur district. These two unions of Jamalpur district were selected purposively as fish farming is a common practice in this upazilla and there remains ample scope of rural youth participation in fish farming activities. The selection was made on the basis of suggestions made by Upazila Fisheries Officer, Sub-Assistant Agriculture Officer and Union Parishad Members of Dewanganj upazila. An up dated list of all the rural youths of the selected unions was prepared by the help of the Upazila Fisheries Officer (UFO) and respective union perished members. A total of 277 rural youths in the selected unions were considered as population of the study. Thirty six percent of the population (Total 99 rural youths) was randomly selected as a sample of the study. A pre-tested and structured interview schedule was used to collect data from the farmers during 10 March to 12 April, 2010. The extent of participation of rural youth in fish farming activities was measured by considering five aspects, namely pond preparation, fry release, disease control, fish harvesting and fish marketing. Under five major aspects fifteen fish farming activities were considered to measure the respondent's participants. A 4-point rating scale such as full participation, moderate participation, low participation, and not at all was followed to determine the extent of participation. The score against the scales were 3,2,1, and 0 respectively. The overall fish farming score of a respondent was measured by adding the scores obtained in all five aspects of fish farming activity. So, overall fish farming activity score could range from 0 to 45, where zero indicated the lowest level of participation and 45 indicated the highest level of participation by the rural youth.

Findings and Discussion

Overall Participation of Rural Youth in Fish Farming Activities

Possible score for extent of participation of rural youth in fish farming activities could ranged from 0 to 45 and observed score ranged from 11 to 36 with an average of 23.88 and standard deviation of 5.85. Based on their observed score, the respondents were classified into three categories as shown in Table 1. Data shows that 51% of the youth had medium participation followed by low (34%). Only 14% had high participation in fish farming activities. The results showed a vast opportunity for rural youth in participating fish farming activities.

Table 1 Extent of participation of rural youth in fish farming (n=99)

Respondent Categories	Respon-dents' percent	Mean	SD
Low (11-19)	34	23.88	5.85
Medium(20-29)	51		
High (30-36)	14		

Item wise Participation of Rural Youth in Fish Farming Activities

Rural youth took part in different fish farming activities which were categorized in to five main aspects such as pond preparation, fry release, disease control, fish harvesting, and fish marketing. The findings in Table 2 show that the mean value for discussion with UFO, fry collection from hatchery, harvest fish in proper time, collect information for fish harvesting and supply the fish to the buyer had more than 2 against a possible mean score 3. The highest mean (2.30) was found in 'harvest the fish in proper time'. The reasons behind this result might be (i) to get more economic benefits from fish culture, (ii) to save the fish from the natural hazards, (iii) to maintain the scientific ways of fish culture etc. And the least mean (0.24) was found in "sort healthy fingerlings" indicated the lowest participation. However, 48% (mean 54.26) of the fish farmers practiced the activity 'sort healthy fingerlings' frequently (Siddique, 2006). This was mainly because due to low knowledge of the fish farmers.

Table 2 Activity-wise of participation of rural youth in fish farming

Activities	Extent of participation (n=99)				Mean
	Full	Moderate	Low	Not at all	
Pond preparation					
Discussion with UFO	27	67	4	1	2.21
Site selection	24	41	34	0	1.89
Removal of weed	17	32	34	16	1.50
Lime and fertilizer application	13	44	30	12	1.58
Fry release					
Fry collection from hatchery	40	42	15	2	2.21
Sort healthy fingerlings	0	0	24	75	0.24
Disease control					
Supply food timely	15	71	10	3	1.99
Remove the disease infected fish	5	33	56	5	1.38
Maintain the water quality	27	21	35	16	1.59
Fish harvesting					
Harvest the fish in proper time	43	44	11	1	2.30
Transport the fishes	3	56	34	6	1.56

Activities	Extent of participation (n=99)				Mean
	Full	Moderate	Low	Not at all	
Harvest table size of fish	30	29	30	9	1.79
Fish marketing					
Collect information for fish harvesting	40	45	7	7	2.19
Supply the fish to the buyer	25	55	19	0	2.06
Sell smaller fish if market price is much higher	0	0	35	64	0.35

Mean value for the activity of removal of weed was 1.50 showed average participation of rural youth in this activity. This was also the results of low knowledge of fish farmers. However, other considerable high means that were 2.21, 2.21, 2.19, and 2.06 also found in "discussion with UFO", "fry collection from hatchery", "collect information for fish harvesting" and "supply the fish to the buyer". According to the study conducted by Siddique (2006), only 32% (mean 23.01) of the fish farmers participated marketing activities. The result is similar to the present study. The reason behind this result was fish mainly sold out from the farming place. That is why rural youths need not to go to market for selling fish. Since, "sell smaller fish if market price is much higher" and "sort healthy fingerlings" are more important aspects in fish farming; there remain vast scope of participation. The mean which were lower than 2, those have to be enhanced by involving rural youth in that certain aspects.

Selected Characteristics of the Farmers

Descriptive statistics of salient features of the selected characteristics of rural youth have been presented in Table 3.

Table 3 Salient features of the selected characteristics of the rural youth

Selected Characteristics	Unit of measure-ments	Possible range	Observed range	Respondent Categories	Respon-dents % (N=99)	Mean	SD
Age	Year	unknown	24-35	Young (up to 35)	99	30.67	3.09
Level of education	Score	unknown	6-12	S.S.C (6-10)	73	9.33	1.83
				H. S.C (>10)	26		
Family size	Number	unknown	5-10	Small (up to 4)	19	6.44	1.09
				Medium (5-8)	78		
				Large (8-10)	2		
Annual Family income	'000' Tk	unknown	TK 15-135	Low (up to 50)	14	74.44	19.68
				Medium(51-80)	56		
				High (81-135)	29		
Training experience	Days	unknown	0-6	No training (0)	74	.242	.430
				Short (up to 5)	12		
				High (>5)	13		
Extension media contact	Score	0-33	7-24	Low (7-13)	22	13.25	3.63
				Medium (14-19)	56		
				High(20-24)	21		
Cosmopolite-ness	Score	0-18	3-12	Low(3-6)	22	7.98	1.80
				Medium (7-10)	71		
				High (11-12)	6		
Knowledge on	Score	0-18	5-8	Low (up to 3)	16	6.10	0.71

Selected Characteristics	Unit of measure-ments	Possible range	Observed range	Respondent Categories	Respon-dents % (N=99)	Mean	SD
fish farming activities				Medium (4-8)	83		
				High (0)	0		
Social participation	Score	0-24	0-18	Low (0-6)	4	14.49	1.76
				Medium (7-12)	74		
				High (>12)	21		
Organizational participation	Score	0-15	1-8	Low participation (1-4)	69	1.30	0.56
				Medium (5-8)	30		
				High (0)	0		

It was found that 73% of the respondents had secondary level of education and rest 26% had higher secondary level of education. Educated youth may get useful information through reading leaflets, books, newspaper, and other printed materials on fish farming activities. Data in Table 3 indicated that 19%, 78%, and 2 % respondents had in small, medium and large category, respectively. The results indicated that 14% of the respondents were low income category, 56% was medium income category and the rest 29% belonged to high income category. The highest proportion 74% of the respondents had no training, 12% had short training, and 13% respondents had high training. Training experience is an important factor, which enhance the level of knowledge and improve skills on various aspects of agricultural technologies (lslam, 2004). As the study areas are situated in a backward area and it's infrastructural and communication facilities are poor, most of the respondents were not aware about various training courses offered by different organizations. Twenty two percent of the respondents had low contact in extension media, while 56% of them had medium extension media contact and 21% had high extension media contact. Media is a very effective source of receiving information about new and modern technologies on fish farming activities. The 22% of respondents had low cosmopoliteness, 71% had medium cosmopoliteness and 6% had high participation. Data contained in the Table 3 shows that 16% respondent had low knowledge, 83% had medium knowledge and 0% had high knowledge on fish farming activities. About 4% respondents had low participation, 74% had medium participation and 21% had high participation. More than half (69%) respondents of the rural youth had low participation, 30% had medium participation and 0% had high participation.

Relationship between the Selected Characteristics of Rural Youth and their Participation in Fish Farming Activities

The correlation analysis showed that level of education, annual family income, training experience, extension media contact,

cosmopoliteness, knowledge on fish farming activities and social participation had positive and significant relationships with the extent of participation of rural youth in fish farming activities (Table 4). On the other hand, age and organizational participation and family size of rural youth had insignificant relationships with the extent of participation of rural youth in fish farming activities. Thus, the above findings lead to the conclusion that to increase the participation of rural youth in fish farming activities the concerned authorities should take proper steps considering the significant characteristics of the rural youth and in particular the aspects in which their participation is specifically low.

Table 4 Relationships between selected characteristics of rural youth and their participation

Independent variables	Correlation coefficient (r) (df. 98)
Age	-0.082
Level of education	0.514**
Family size	0.197
Annual family income	0.307**
Training experience	0.553**
Extension media contact	0.650**
Cosmopoliteness	0.371**
Knowledge on fish farming activities	0.343**
Social participation	0.265**
Organizational participation	-0.114

* Significant at 0.05 level of probability
** Significant at 0.01 level of probability
Dependent varibale: Extent of participation of rural youth in fish farming activities.

Conclusions

The majority (85%) of the rural youth in the study area had low to medium participation in fish farming activities, while only 14% are highly involved in fish farming activities. This lead to conclusion that there is an ample scope of increasing rural youth participation for more fish production. Annual income of the respondents had positive significant relationship with the extent of participation of rural youth in fish farming activities. It implies that, the annual family income can be increased by increasing their participation in fish farming activities. Majority (86%) of the respondents had no or short training experience and it had positive and significant relationship with the extent of participation of rural youth in fish farming activities. This indicates that training experience can make rural youth skilled personnel and then it will be helpful for increasing fish production. The highest proportion (78%) of the respondent had low to medium extension media contact which had positive significant relationship with the extent of participation of rural youth in fish farming activities. This implies that if media contact of rural youth increase, they will be more interested to participate in fish farming activities. Most of the respondents (71%) had medium cosmopoliteness which had significant relationship with their extent of participation in fish farming activities. Hence it could be concluded that cosmopolite people are more interested to involve in fish farming activities. The great proportion (83%) of the respondents had high knowledge about fish farming activities which had positive significant relationship. Thus, increasing of knowledge about fish farming activities can be made rural youth interested to involve in fish farming. Majority (95%) of the respondents had medium to high social participation and also

had significant and positive relationship with their extent of participation in fish farming activities. It indicates that if social participation of rural youth increases, they will be more interested to participation in fish farming activities.

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