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Farmers' Perception of One House One Farm Approach

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Abstract

The main focus of the study was to determine farmers' perception of One House One Farm approach and explore the relationships between the selected characteristics of the farmers with their perception. The study was carried out in two unions of Mymensingh Sadar upazila. Data were collected from a sample of 60 farmers during July to August, 2011. Farmers' perception towards "One House One Farm" approach was the main focus of the study and measured under six aspects such as, food security, economic security, input supply, requirements, components and organizational support. Pearson's Product Moment Coefficient of correlation (r) was computed in order to explore the relationships between the farmers' characteristics and their perception. However, descriptive statistics such as mean, standard deviation and range were used to describe the variables. The findings revealed that 18% farmers had favorable perception and only 16% had highly favorable perception of "One House One Farm" approach. The correlation test showed that year of schooling, training received, family members' cooperation, extension media contact and agricultural knowledge of the farmers had significant positive relationships with their perception of One House One Farm approach.

Keywords: *Perception, one house one farm approach*

Introduction

Bangladesh is an assemblage of thousands of villages. The biodiversity and ecosystem of these villages are immensely rich and production friendly. These lively villages have fertile land and are inhabited by the poor but industrious village dwellers. These hard working rural people can cultivate the fertile land of Bangladesh, develop farm at every house of every village and increase the overall production of the country many folds. Urbanization is increasing due to education, employment, trade and other reasons which are leading to an increase of absentee land owner. About 10% absentee landowners own 50.6% of the total cultivable land of Bangladesh. The requirements to ensure sufficient production and conservation of the rural areas are developments of village organization, provision of need based training and capital to the villagers, increase savings, involvement of rural people in the local government authority and its sustainability. 'One House One Farm' project is undertaken for the generation and sustainability of overall management of different production programs as well as marketing, preservation and storage of produced commodities at field level at the vision of development of the rural areas of Bangladesh.

Farmers are the main executor and beneficiaries of this project. Bangladesh Rural Development Board (BRDB) is the leading executing agency of this project. The duration of the project is seven years starting from July, 2009 to June, 2016 worth of 5.927 billion taka. The main goal of this

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project is to reduce the poverty from 40% to 20% within 2015 by developing every family as an unit of sustained economy by maximum utilization of human and economic capitals. About five million poor rural families will be benefitted from this project (Anonymous, 2010).

The farmers can produce diversified products which will ensure their food security and also economic stability. Integration of products in a balanced way will also ensure resource recycling. For the successful adoption and sustainability of this project it is very important to know the perception of the farmers toward One House One Farm approach. Keeping these facts on mind, the present study had been undertaken to fulfill the objectives: to determine the farmers' perception of "One House One farm" approach and explore the relationships between the selected characteristics of the farmers with their perception of "One House One Farm" approach.

Methodology

The study was conducted in Akua and Bhabokhli union under Mymensingh Sadar upazila. From each union five villages were selected. The villages were fixed by Bangladesh Rural development Board (BRDB). The villages under Akua union were Dhakkhinpara, Moralpara, Chukietola, Udanbarara, Moddhobarara and the villages under Bhabokhali union were Ponghagra, Churkhai, Nehaelakanda, Unayarpar and Sutiakhali. The population of the study was the farmers who received training from BRDB under One House One Farm project. Akua and Bhabkhali union BRDB trained 80 farmers. Among them sixty farmers were considered randomly as sample of the study. From each village six farmers were selected. Akua union comprised 30 farmers and Bhabkhali union comprised 30 farmers. Thus the sample size was 60. Data were collected from the farmers through personal interview during July to August, 2011.

Farmers' perception of "One House One Farm" approach was the focus variable of the study. For measuring perception of the respondents a 5- point Likert scale was used. There were 18 statements including both negative and positive against the 5-point scale to avoid the biasness of the respondents. All the statements were arranged randomly under six headings i.e. food security, economic stability, input supply, requirements, component and organizational support to help avoiding subjects' bias in expressing their opinion. Each respondent was asked to indicate his extent of agreement or disagreement against each statement along a 5-point scale: 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree'. Weights assigned to these responses were 5, 4, 3, 2 and 1 respectively. The total score of a respondent was determined by summing up the weights for responses against all the 18 statements. The total score of a respondent was determined by summing up the weights for responses against all the 18 statements. Perception score of a respondent could, thus, range from 18 to 90.

Perception Score = 5×SA + 4×A + 3×U + 2× DA + 1×SDA

Where,

SA = Total number of respondents expressing their perception 'strongly agree' for the statement

A = Total number of respondents expressing their perception 'agree' for the statement

U = Total number of respondents expressing their perception 'undecided' for the Statement
DA = Total number of respondents expressing their perception 'disagree' for the statement
SDA = Total number of respondents expressing their perception 'strongly disagree' for the statement

This formula was considered for positive statements; on the other hand scoring was reverse for negative statements. In case of negative statements 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' were assigned weight as 1, 2, 3, 4 and 5 respectively.

Data were collected by the researcher himself through focus group discussion (FGD), case study and personal interview schedule from the farmers of the selected villages. Firstly two FGDs were done in two unions to identify the problems of the farmers and get an idea of the field situation. The interview was conducted with the respondents individually in their respective houses. The analysis of the data was performed using SPSS (Statistical Package for Social Sciences) software.

Findings and Discussion

Farmers' Perception of One House One Farm Approach

Farmers' perception of "One House One Farm" approach was the main thrust of this research. The combined calculated perception score of the farmers ranged from 21 to 83 and the possible score of the farmers ranged from 18 to 90 with an average score of 47.46 and standard deviation 33.23. The farmers were categorized into five classes (highly favorable, favorable, neutral, unfavorable and highly unfavorable) based on their perception scores. The distribution of the farmers according to the perception score has been shown in Table 1. Table 1 reveals that, 18% farmers had favorable perception, 16% had highly favorable perception, 22% of the farmers had highly unfavorable perception, 38% had unfavorable perception and only 6% had neutral perception of "One House One Farm" approach.

Table 1 Distribution of the farmers in terms of perception score

Range		Categories	Farmer		Mean	SD
Possible	Observed		No.	%		
18-90	21-83	Highly unfavorable (<36)	13	22	47.46	33.23
		Unfavorable (36-54)	23	38		
		Neutral (54)	4	6		
		Favorable (>54-72)	11	18		
		Highly favorable (>72)	9	16		
		Total	60	100		

The above table reveals that, only 24% farmers have favorable perception of "One House One Farm" approach. The low rate of favorable perception is related to the cultivation pattern of our country. In our country most of the farmers are used to monoculture especially rice and rice is the single crop which covers 74% of the

cultivable land of the country. Farmers do not practice integrated farming. In some cases, they were practicing this approach but they don't know that they are practicing one house one farm approach. Some farmers thought that only integration of different agricultural products could not be effective in reducing the poverty. To cope with the present economic situation of the country, the farmers are going for hybrid rice production for better yield. But the small and landless farmers can't practice it. They are also thinking that hybrid rice production is the solution of the poverty problem of Bangladesh. For the above causes the perception of the farmers of one house one farm approach was not favorable at a satisfactory level. Majlish (2007) conducted a study on perception of participant women on social forestry program of BRAC. The findings revealed that most of the respondents (59 percent) had favorable perception while 30.0 percent and 11 percent of them had moderately favorable and unfavorable perception of social forestry respectively. Islam (2005) conducted a study on the perception of the farmers' about causes and remedies of Monga in Kurigram district and found that 57.8 percent had high favorable perception, 41.4 percent having moderate favorable and only 0.8 percent had low favorable perception. Karim (2009) conducted a study on the perception of the fish farmers' of flood coping mechanism in Jamalpur district. He found that 92.9 percent farmers had moderately favorable perception of this issue.

Selected Characteristics of the Farmers

Farmers have diversified nature and different characteristics. The characteristics of different farmers might have differential influence on the perception of the farmers. For this research only nine characteristics of the farmers were selected. The selected characteristics are age, year of schooling, household size, farm size, family income, training received, extension media contact, family members' cooperation and agricultural knowledge. The salient findings of the characteristics of the farmers are presented in Table 2. Data presented in Table 2 reveals that majority of the farmers (55%) were middle-aged and the highest portion of farmers (38%) had education up to primary level. Considering all members of a farm family the finding indicated the tendency of village people to form nuclear family instead of large working family. The findings of the table indicate that a high majority (81%) of the farmers belonged to the category of small farm size and the economic situation of the farmers were not good, where 76% of the farmers had low and medium family income. The table demonstrates that the amount of agricultural training received by the farmers in terms of days is at a satisfactory level with the average of 26.71 days. An overwhelming majority of 44% of the farmers had cooperation from the family members at medium level.

Data indicates that among the total farmers 45% of them had medium extension contact and 35% of the farmers had low extension medium contact. Data indicates that 73% of the farmers had moderate agricultural knowledge, 7% of them had low agricultural knowledge and the rest of the farmers had high agricultural knowledge. This finding provides a clue that farmers knowledge level were moderate in the research area.

Table 2 Characteristic profile of the farmers

Characteristics (Measuring units)	Range		Respondents			Mean	SD
	Possible	Observed	Categories	No	%		
Age (Year)	Unknown	23-71	Young (18-35)	6	10	41.53	16.12
			Middle-aged (36-50)	33	55		
			Old (>50)	21	35		
Year of Schooling (Year)	Unknown	0-15	Illiterate (0)	8	13	7.09	5.13
			Primary education (1-5)	23	38		
			Secondary education (6-10)	19	32		
			Higher secondary (11-12)	7	12		
			Higher education (>12)	3	5		
Household size (Number)	Unknown	2-14	Small (upto 4)	5	8	6.13	1.87
			Medium (5-6)	31	52		
			Large (>6)	24	40		
Farm size (Hectare)	Unknown	0.11-1.87	Marginal (0.02-0.20)	4	7	0.67	0.39
			Small (0.21-1)	49	81		
			Medium (1.1-3.0)	7	12		
			Large (>3.0)	0	0		
Family Income (000' Tk.)	Unknown	24-253	Low (<50)	17	28	45.47	31.33
			Medium (50-100)	29	48		
			High (>100)	14	24		
Agricultural training received (Days)	Unknown	3-65	Short duration (<20)	21	35	26.71	17.47
			Mid duration (20-40)	33	55		
			Long duration (>40)	6	10		
Family members' cooperation (Score)	0-32	7-30	Low extent (<10)	11	18	20.24	11.24
			Medium extent (10-21)	26	44		
			High extent (>21)	23	38		
Extension media contact (Score)	0-24	3-22	Low (<8)	21	35	9.25	9.11
			Medium (8-16)	27	45		
			High (>16)	12	20		
Agricultural knowledge (Score)	0-30	6-28	Poor (<10)	4	7	16.33	9.97
			Moderate (10-20)	44	73		
			Good (>20)	12	20		

Relationship Between the Selected Characteristics of the Farmers and their Perception of One House One Farm Approach

Relationship between the selected characteristics of the farmers and their perception of One House One farm were ascertained by the Pearson's product moment coefficient of correlation (r) and the summary of the results has been presented in Table 3. Out of the nine selected characteristics result showed that five characteristics namely; year of schooling, training received, family members' cooperation, extension media contact and agricultural knowledge had significant and positive relationship with their perception of "One House One Farm" approach. However, the rest of the characteristics selected for the research shown no significant relationship with their

perception of "One House One Farm" approach.

Table 3 Coefficient of correlation (r) between the selected characteristics of the farmers and their perception

Characteristics of the farmers	Computed r values for farmers
Age	-0.120
Year of schooling	0.254*
Household size	0.086
Farm size	0.145
Annual income	0.131
Agricultural training received	0.643**
Family members' cooperation	0.357**
Extension media contact	0.248*
Agricultural knowledge	0.266*

*Significant at 0.05 level of probability (table value 0.217 at 78 df)
**Significant at 0.01 level of probability (table value 0.284 at 78 df)

The finding of the study indicates that year of schooling has an impact on the perception of the farmers. The farmers receiving more education from school has more favorable perception of "One House One Farm" approach. Education upgrades the individuals in all aspects. Education enables individuals to gain knowledge, increase their level of understanding, consequently broadened their outlook and horizon of knowledge is expanded. Similar findings were also found by Pal (2009), Biswas (2009) and Alam (2008) in their respective studies. Agricultural training received by the farmers has significant relationship with the farmers' perception of "One House One Farm" approach. The main cause is training increases the skill and knowledge of farmers and improves their outlook which makes them more interested to practice this approach. Roy (2009), Majlish (2007) and Kabir (2002) also found similar results in their respective studies. From the above table it could be concluded that the family members' cooperation had a positive effect on the perception of the farmers towards "One House One Farm" approach. When the family members of the farmer cooperate in different farming activities it is easy for him to adopt One House One farm approach. As a result the farmers get the opportunity to develop favorable perception of "One House One Farm" approach.

Media contact enables an individual to gain more information and broaden his outlooks. High media contact means more farmers being enlightened and consequently having broader outlooks and progressive attitudes. Media contact enables individuals to come more in contact with different kinds of communication media namely, interpersonal, group and mass. This study reveals that, extension media contact had a positive effect on the perception of the farmers. When the extension contact is high, the farmers were acquainted with more information which helped them to build up a favorable perception of One House One farm approach. Roy (2009); Pal (2009) and Alam (2008) found similar findings in their respective studies. Thus, in the present study agricultural knowledge played a positive significant role on the perception of One House One farm approach. To adopt One House One Farm approach the farmers required some agricultural knowledge. Agricultural knowledge is also required to follow any integrated farming. Every farmer had more or less knowledge on agriculture. But the increased knowledge of the farmers helped to build favorable perception of the farmers. It was found that the educated farmers had more agricultural knowledge and they were more interested in the adoption of "One

House One Farm" approach. It might be that, the knowledgeable farmers understood the benefits of this approach and were interested to develop their livelihood by practicing this approach. Roy (2009), Pal (2009), Alam (2008) and Hossain (2007) found similar findings in their respective studies.

Conclusion

The findings of the present study revealed that 34% of the farmers had favorable perception of "One House One Farm" where the rest of 60% farmers had unfavorable perception. Thus, it may be therefore, concluded that farmers are not much acquainted with this approach. From this study it could be elucidate that, year of schooling, training received, family members' cooperation, extension media contact and agricultural knowledge has impact on the perception of the farmers and are influential for developing favorable perception of "One House One Farm" approach. Training of the farmers is an important issue for developing favorable perception of this approach. If the government gives more training to the farmers it will be helpful for their development of skills for integrated framing and better understanding of this approach. Family members' cooperation is also an influential matter for developing favorable perception. The extension workers should try to involve the whole family members in integrated farming system to develop the house of the farmer as a productive agricultural farm. Thus, the successful adoption of "One House One Farm" approach will play an important role in the improvement of the livelihood of the farmers and as well as the development of the economy of the country. Therefore, BRDB should take massive steps to give training on specific aspects relevant with "One House One Farm" approach and increase extension support to the farmers to develop favorable perception of this approach.

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