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Attitude of common interest group members towards National Agricultural Technology Programme (Phase-I) interventions

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ABSTRACT

The main purpose of the study was to determine Common Interest Group members' attitude towards National Agricultural Technology Programme (NATP) (phase-I) interventions in the selected areas of Mymensingh district and to explore the relationships between eleven selected characteristics of the CIG members and their attitude towards NATP (phase-I) interventions. A total of 110 CIG members were selected from CIG groups reside in Bailor and Rampur unions of Trishal upazila following simple random sampling technique. Data were collected during 23 September to 20 October, 2018 using a structured interview schedule through face-to-face interview method by the principal author himself. Data were analyzed with a combination of descriptive statistics and inferential statistical technique. Eleven selected characteristics of the CIG members namely; age, education, household size, farm size, annual income, farming experience, organizational participation, training received, credit received, agricultural subsidy received and extension media contact were considered to show relationships with their attitude towards NATP (phase-I) interventions. The majority (60%) of the CIG members had highly favourable attitude towards NATP (phase-I) interventions compared to 39.09% of the respondents had moderately favourable attitude and only 0.91% of the respondents had slightly favourable attitude towards NATP (phase-I) interventions. Correlation analyses indicated that the farm size, annual income, agricultural subsidy received and extension media contact had significant positive relationships with respondents attitude towards NATP (phase-I) interventions. So, these four characteristics had significant contributions on the attitude of CIG members. Age, education, household size, farming experience, organizational participation, training received and credit received had no significant relationship with respondents attitude towards NATP (phase-I) interventions. So. these characteristics had no significant contributions on the attitude of CIG members. The CIG members were found with very much enthusiastic about NATP (phase-I) interventions that could help policy makers to continue their efforts on that issue.

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Introduction

Bangladesh is a small country which is considered as one of the most densely populated countries in the world. According to World Population Review, Bangladesh has a population of 166.37 million with a density of 1115.62 people per km² (World Bank, 2018). According to the report of WHO, the life expectancy in Bangladesh is 72.76 years and in the report of the UNDP placed 136th position Bangladesh in Human Development Index (UNDP, 2018). However, it is a small country in terms of GDP and per capita income. Agriculture is the backbone of the country which contributes 17 percent of the GDP (BBS, 2016). About 70% of the total population live in rural areas and directly or indirectly depends on agriculture for livelihood. About 63% of the labour forces are employed in agriculture of which 57% is employed in crop sector (BBS, 2015). Agriculture in Bangladesh is characterized by small farms and rice dominated farming system. In

Bangladesh, roughly half of the population depends directly or indirectly on agriculture for their livelihoods. Most of the people living in rural areas depend on land for their livelihoods which is fertile but vulnerable. The rural people use traditional farming system because they do not have adequate knowledge about various new technologies and scientific method of crop production. As a result productivity of rice and other crops is low compare to many developing countries and the same is true for other agricultural commodities such as fisheries and livestock (BBS, 2017). The rural farming households are the main contributor to our economy and also the major part of our population. To develop the country it is very important to develop the household situation of the farm families. Private investment in research and extension is low. The NGOs, local governments and community organizations are coming up very slowly. Therefore, the public sector must continue to play a leading role in agricultural research and extension. In this regard, the government has taken

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steps to strengthen the existing research and extension to disseminate new agricultural technologies.

The NATP project was undertaken to disseminate new technologies among the rural community and to improve the situation of the poor families and reduce the poverty level of the country. This project was financed by World and International Fund for Agricultural Development (IFAD). The first phase of this project was approved on 7 February and started functioning from the same year. The first phase of this project has already been completed in 2013. Now the second phase is running. The project was launched to develop and disseminate agricultural technology, increase agricultural productivity, strengthen social and economic capital, develop the supply chain, improve agricultural marketing system etc. The four major components of the project were: Agricultural research support, agricultural extension support, development of supply chain and project management and co-ordination (BARC, 2014). The project was planned to take care both research and extension in parallel, the specialty of the project. Therefore, beside DAE, different National Agricultural Research System (NARS) institutes, public universities, even some NGOs were brought under the same umbrella. The CIG (Common Interest Group) members are the main executor and beneficiaries of this project. A Common Interest Group is an association of people from the same socio-economic background who share a common interest or passion. They also exchange thoughts, ideas and belief about the given passion. Farmers can be members of only one CIG through which they can receive training and participate in demonstration plots in more than one technology for the sub-sector-specific extension. The CIG members can increase their agricultural production by adopting various newly improved technologies to the changing climate which will ensure their food security and also economic stability. The sustainable livelihood approach of the Department for International Development (DFID) is inherently responsive to people's own interpretations and priorities for their livelihoods. However, it starts with people, it does not compromise on the environment and main principles in terms of poverty eradication (Carney, 1998). DFID sustainable livelihood approach include five assets namely; Natural, Financial, Human, Social and physical.

In Bangladesh, the proportion of people living in extreme poverty in rural areas is still three times higher than in urban areas. Poverty reduction in rural areas depends crucially on growth in agricultural productivity, which is driven by investment in infrastructure, the generation of new or improved technologies adapted to the changing climate, and their adoption by farmers and others in the supply chain. The development objective of the phase-I of the NATP is to improve effectiveness of the national agricultural technology system in Bangladesh. The overall goal of the National Agricultural Technology Program (NATP) is to increase income and reduce extreme poverty and hunger by

improving agricultural technology development and support the development of agriculture, fisheries and livestock sector.

Attitude is a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person or situation. Attitude influences an individual's choice option and responses to challenges, incentives and rewards (Business Dictionary, 2012). Baldwin (1976) referred to attitude as a specific mental disposition towards an incoming or arising experience, whereby the experience is modified; or in other works, it is a condition of readiness for a certain type of activity. Bogardus (1960) defined the term attitude as tendency to act towards or against something in the environment, which becomes thereby a positive or negative value. Action and behavior of individuals are to a large extent determined by their attitude. Like any other concept in the field of social sciences attitude is also defined by authors in many different ways. Attitude is a predisposition to classify objects and events to them with some degree of evaluate consistency. Attitudes logically are hypothetical constructs (i.e. they are manifested in conscious experience, verbal reports, gross behavior and physiological symptoms (Encyclopedia Britanica, 2005). Attitude can also be explicit and implicit. Explicit attitudes are those that we are consciously aware of and that clearly influence our behaviors and beliefs. Implicit attitudes are unconscious, but still have an effect on our beliefs and behaviors (Cherry, 2012). Individuals develop their attitudes through a continuous process of adaptation to the social environment. Attitudes are organized ways of thinking and acting in relation to facts and people in our environment, and they help influence our overall way of life (Fig. 1). There are several different components that make up attitude: i) Affective component, ii) Cognitive component and iii) Behavioural component.

Affective component

Affective component is the emotional or feeling segment of an attitude. It is related to the statement which affects another person. It deals with feelings or emotions that are brought to the surface about something, such as fear or hate.

Cognitive component

The cognitive component of attitude refers to the beliefs, thoughts and attributes that associates with an object. It is the opinion or belief segment of an attitude. It refers that part of attitude which is related in general knowledge of a person.

Behavioural component

Behavioural component of an attitude consists of a person's tendencies to behave in a particular way towards an object. It refers to that part of attitude which reflects the intention of a person in short run or long run.

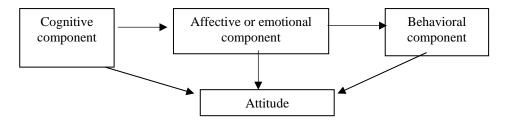


Fig. 1. Components of attitude (Rosenberg and Hovland, 1960)

The term attitude regarded as applied to an individual's predisposition to respond in a characteristic way to some stimuli in his social environment. Basically, an attitude according to him is a tendency to behave either positively or negatively towards any social cares what even an institution, a person, a situation, an idea or a concept stimuli. Attitude is the by-product of an individual's experience and have their bases in inner urges, acquired habits and environment influences by which he is surrounded. The readiness to respond to a certain object in a favourable or unfavourable fashion; every attitude has both an intrinsic and a behavioral deposition. Attitudes are a permanent system of evaluation, emotions and direct behavioral tendencies for or against an object.

Agriculture sector is the lifeline of Bangladesh economy. It plays a significant role in fast-tracking the economic growth of Bangladesh. It is extensively implied that improvements of agricultural technologies and agricultural development projects reduce poverty and improve living standard of rural people. For the sustained growth in agriculture sector, the government supports expanding newly developed technologies, diversifying crops, providing training and other input facilities and increase agricultural production through the interventions of National Agricultural Technology Programme. So far, there is no research is undertaken concerning NATP interventions. As NATP is the topmost important project in agriculture sector of Bangladesh, the researcher decided to undertake the study concerning this project. So, all these issues keeping in mind the present study was formulated with following specific objectives: to determine the attitude of Common Interest Group (CIG) members towards National Agricultural Technology Programme (NATP) (phase-I) interventions and to explore relationships between the selected characteristics of CIG members and their attitude towards NATP (phase-I) interventions

Materials and Methods

The study was conducted in two unions namely Bailor and Rampur union of Trishal upazila under Mymensingh district (Fig. 2). The selected unions had communication facilities and were under the supervision of DAE. The population of the study was the CIG members who received extension services under NATP. There were total 12 unions in Trishal upazila. Each union had 10

CIG groups. So, there were 20 CIG groups in the study area. Each group consists of 20 members. So, the number of total population is 400. Among the CIG members 110 members were sampled randomly as the sample of the study which was about 28% of the population. From Bailor union the CIG members were sampled randomly from the villages named Sommukh Bailor and Dulalbari and from Rampur union the CIG members were sampled randomly from the village called Birrampur. The villages were sampled randomly by the researcher for the convenience of the study. Data were collected from the respondents by the researcher using structured interview schedule from the period of 23 September to 20 October 2018.

The 11 selected characteristics of CIG members were age, education, household size, farm size, annual income. farming experience, organizational credit received. participation, training received, agricultural subsidy received and extension media Appropriate methods were used contact. operationalize the CIG members' characteristics by developing suitable scales. For measuring the attitude of the respondents a five point Likert scale (Likert, 1932) was used. There were 19 statements including both positive and negative to avoid biasness of the respondents. Specific score was assigned to measure the attitude of CIG members such as 4, 3, 2, 1 and 0 for strongly agree, agree, undecided, disagree and strongly disagree respectively (Ulla et al., 2011; Ghosh and Hasan, 2013). Each respondent was asked to indicate his/her attitude regarding a statement by selecting the appropriate option. The attitude score of a respondent was computed by summing the scores for responses to all the statements.

Hence, Attitude Score (AS) = $4\times SA+3\times A+2\times U+1\times DA+0\times SDA$ (Ulla *et al.*, 2011) Where,

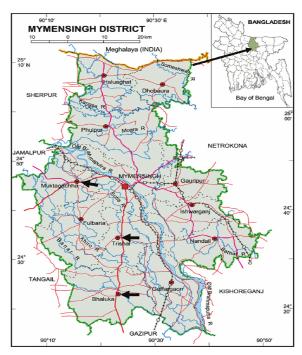
SA = Total number of respondents expressing their attitude 'strongly agree' for the statement

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

U = Total number of respondents expressing their attitude 'undecided' for the statement

DA = Total number of respondents expressing their attitude 'disagree' for the statement

SDA = Total number of respondents expressing their attitude 'strongly disagree' for the statement.





The 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 0, 1, 2, 3 and 4 respectively. Thus, the attitude score of a respondent could range from 0 to 76; while 0 indicating highly unfavourable attitude and 76 indicating highly favourable attitude towards NATP (phase-I) interventions. The collected data were properly edited and coded before final analysis. All inconsistent data was avoided to element the errors and fault. The Statistical Package for Social Sciences (SPSS) was used for the data management. Mainly descriptive statistical techniques such as percentage, frequency, mean, standard deviation and correlation analyses were done to measure the relationship between the selected characteristics of CIG members and their attitude towards NATP (phase-I) interventions.

Results and Discussion

Selected characteristics of the CIG members

The salient findings of selected characteristics have been presented in Table 1. The age of the respondents ranged from 22 to 65 years with an average of 40.45 years and standard deviation 8.2. Data presented in Table 1 show that the highest proportion (68.18%) of the respondents were in middle aged category followed by young respondents (30%) and old aged (1.82%). The level of education of the respondents ranged from 0 to 16 years the average being 5.32 with a standard deviation of 4.11. Most of the respondents (38.18%) had secondary level of education followed by primary level (30%) and no

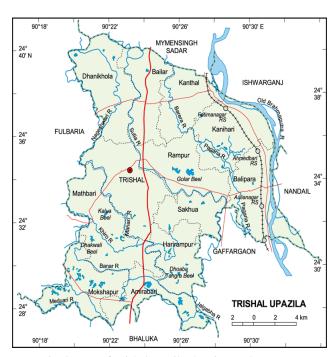


Fig. 3. Map of Trishal upazila showing study area

schooling (28.18%) while 3.64% respondents had higher secondary level of education. It is expected that education is one of the important factors in determining respondents' attitude. It helps them to broaden their outlook and expands their horizon of knowledge. The household size of the respondents ranged from 2 to 10 with a mean of 4.85 was higher than that of the national average of 4.48 (BBS, 2015) and standard deviation 1.55. The highest proportion (44.5%) of the respondents had small family followed by medium family (43.6%) and 11.8% respondents had large family. The farm size of the respondents ranged from 0.008 to 2.1 ha with an average of 0.44 ha which was lower than that of national average of 0.51 ha (BBS, 2015) and standard deviation 0.33. The highest proportion (75.5%) of the respondents had small size farm followed by 20% of the respondents had marginal size farm while 4.5% of the respondents had medium size farm.

The annual income of the respondents ranged from Tk. 8000 to Tk. 871000 with an average income of Tk. 14400.09 and standard deviation of Tk. 10600.82. Data presented in Table 1 show that the highest proportion of the respondents (50%) had low income followed by medium income (41.8%) while only 8.2% of the respondents had high income. The farming experience score of the respondents ranged from 3 to 30 years with a mean of 16.4 years and standard deviation 7.02. Data indicate that the highest proportion (50.91%) of the respondents had medium farming experience followed by 42.73% had high experience while only 6.36% of the respondents had low farming experience. organizational participation score of the respondents ranged from 1 to 4 with a mean of 1.67 and standard deviation 0.65.

Table 1. Distribution of the respondents according to their selected characteristics (n=110)

Characteristics	Possible score range	Categories	R	espondents	Mean	Standard	
(scoring system)	(observed score)		No. Percent (%)		_	Deviation	
Age	N. 1 C. 1 (00 + 65	Young (18-35)	33	30			
(Actual years)	Not defined (22 to 65 years)	Middle Aged (36-55)	75	68.2	40.45	8.2	
, ,		Old (>55)	2	1.8			
Education (Year of schooling)		No schooling (0)	31	28.2			
	Not defined (0 to 16 years of	Primary (1-5)	33	30			
	schooling)	Secondary (6-10)	42	38.2	5.32	4.11	
	sensomig)	Higher secondary (>10)	4	3.6			
Household Size (No. of members)		Small (up to 4)	49	44.5			
Trousenord Bize (110. of memoers)	Not defined (2 to 10 members)	Medium (5-7)	48	43.6	4.85	1.55	
	110t defined (2 to 10 members)	Large (above 7)	13	11.8	1.05	1.55	
Farm size (Hectares)		Marginal (0.02-0.20)	22	20			
Tarm size (frectares)		Small (0.21-1)	83	75.5			
	Not defined (0.008 to 2.1 ha)	Medium (1.1-3.0)	5	4.5	0.44	0.33	
		` /	0	0			
Ammuel Income ('000'Tlr)		Large (>3.0)		50			
Annual Income ('000'Tk)	N . 1 C 1 (0 . 071)	Low (up to 120)	55		144.00	106.02	
	Not defined (8 to 871)	Medium (121-240)	46	41.8	144.09	106.82	
		High (> 240)	9	8.2			
Farming Experience (Years)		Low (up to 7)	7	6.4			
	Not define (3 to 30 years)	Medium (8-15)	56	50.9	16.4	7.02	
		High (>15)	47	42.7			
Organizational participation		No participation (0)	0	0			
(Scores)	Not defined (1 to 4)	Low (1-2)	101	91.8	1.67	0.65	
	Not defined (1 to 4)	Medium (3-4)	9	8.2	1.07	0.03	
		High (>4)	0	0			
Training received (Days)		Not received (0)	0	0			
		Received for short duration	4.5	40.0			
		(1-2)	45	40.9			
	Not defined (1 to 5 days)	Received for medium duration (3-4)	55	50	2.84	1.02	
		Received for long duration (>4)	10	9.1			
Credit received ('000' Tk)		Not received(0)	80	72.7			
		Received with minimum amount (1-35)	11	10			
	Not defined (0 to 110)	Received with medium amount (36-70)	17	15.5	11.7	22.46	
		Received with high amount (>70)	2	1.8			
Agricultural subsidy received		Not received (0)	50	45.5			
(Taka)		Received with low amount	20	18.2			
		(up to 500)	20	18.2			
	Not defined (0 to 1500)	Received with medium amount (501-1000)	35	31.8	584.55	576.47	
		Received with high amount(>1000)	5	4.5			
Extension media contact (Scale		Low (up to 10)	17	15.5			
scores)	0 to 30 (7 to 21)	Medium (11-20)	91	82.7	13.54	3.12	
•		High (>20)	2	1.8			

The highest proportion (91.8%) of the respondents had low organizational participation while only 8.2% of the respondents had medium organizational participation. The training received score of the respondents ranged from 1 to 5 days with an average of 2.84 days and standard deviation 1.02. Data furnished in Table 1 indicate that most of the respondents (50%) had medium duration training followed by 40.9% had short duration training and only 9.1% of the respondents had long duration training. The credit received of the respondents ranged from Tk. 0 to Tk. 110000 with a mean of Tk. 11000.7 and standard deviation of Tk. 2200.46. Most of the respondents (72.7%) received no credit followed by 15.5% received medium credit and 10% of the respondents received low credit while only 1.8% of the respondents received high credit. The agricultural subsidy received score of the respondents ranged from

Tk. 0 to Tk. 1500 with a mean value of Tk. 584.55 and standard deviation 576.47. Data presented in Table 1 indicate that the highest proportion (45.45%) of the respondents received no subsidy compared to 31.82% received medium subsidy, 18.18% of the respondents received low subsidy while only 4.54% of the respondents received high agricultural subsidy. The computed extension media contact score of the respondents ranged from 7 to 21 against the possible range of 0 to 30 and the mean value was 13.54 with a standard deviation of 3.12. Highest proportion (82.73%) of the respondents had medium extension media contact followed by 15.45% had low extension media contact and only 1.82% of the respondents had high extension media contact.

To have an understanding about the intervention wise attitude of the CIG members for each statement computed mean values have been shown in Table 2. It is evident from the Table 2 that 'NATP increases diversified crop production' has ranked first as the attitude score of the respondents was the highest (3.77). The findings may be due to that the CIG members get valuable information, technical advices and other input facilities such as seed, fertilizers etc. related to their farming activities which help to increase their diversified crop production. 'Team working ability of CIG members are improved through the involvement in NATP' has ranked second highest (3.58). The findings due to that various activities of NATP helps to improve the ability of the CIG members to work in a team. 'Only resource

rich CIG members get benefit of services provided by NATP' ranked third (3.56). The findings indicated that both resource poor and resource rich CIG members' are benefitted from various activities of NATP. 'NATP initiatives improve savings attitude of CIG members' ranked fourth (3.55). This may be due to that the CIG members' are being involved in savings activities of NATP after their participation in this program. Thus, NATP helps to increase the savings attitude of the CIG members. 'Group affiliation of CIG members are improved through involvement in NATP' ranked fifth (3.53). The findings indicated that group affiliation of CIG members are improved due to their participation in various group activities of NATP.

Table 2. Intervention wise attitude of CIG members towards NATP (phase-I)

Statements		No. of responses			Av.	Rank	
	SA	A	UD	D	SD	score	
NATP activities are useful because these increased diversified crop production in my farm (+)	85	25	0	0	0	3.77	1
Team working ability of CIG members are improved through involvement in NATP $(+)$	65	44	1	0	0	3.58	2
Only resource rich CIG members get benefit from NATP activities (-)	0	0	4	40	66	3.56	3
I believe that NATP initiatives improve savings attitude of CIG members and I could save more (+)	61	48	1	0	0	3.55	4
Various new technologies are properly implemented in the farm by CIG members (+)	58	52	0	0	0	3.53	5
Increased crop productivity helps CIG members to increase income and it happened for me(+)	57	53	0	0	0	3.52	6
I think, my knowledge and skills along with other CIG members' are improved through training provided by NATP (+)	55	55	0	0	0	3.50	7
NATP activities are effective because these helped ensure food security of CIG members (+)	50	60	0	0	0	3.45	8
I think that political affiliation is required to get benefit from NATP (-)	0	0	7	49	54	3.43	9
Nutritional security of the CIG members is ensured by NATP intervention	42	66	2	0	0	3.36	10
and my family got benefits (+)							
Extension activities of NATP disseminate crop production related new technologies which helped to increase production(+)	33	76	1	0	0	3.29	11
Extension services provided by NATP are more helpful to solve farm related problems (+)	24	83	3	0	0	3.19	12
CIG members get input support from NATP (+)	17	89	3	1	0	3.11	13
Credit received from the society of CIG members is used properly by the CIG members and it helped me much (+)	7	86	17	0	0	2.90	14
Extension activities of NATP disseminate livestock related new technologies and I practiced them(+)	1	58	45	6	0	2.49	15
Extension activities of NATP disseminate fisheries related new technologies and they helped much to increase fish production (+)	3	50	52	5	0	2.46	16
Irregular contact along with inadequate technical advices of concerned SAAOs hinder technology adoption (-)	0	41	32	20	17	2.12	17
Specific criteria to become member of CIG are good thus became their member(+)	5	51	28	16	10	1.77	18
Income generating non-farming activities are not included in NATP. It is a good decision(-)	2	67	34	7	0	1.42	19

Notes: SA: Strongly Agree; A: Agree; UD: Undecided; D: Disagree; SD: Strongly Disagree

CIG Members' overall attitude towards interventions

CIG members' attitude towards NATP (phase-I) interventions was the main focus of the study. Attitude score of the CIG members varied from 47 to 68 against the possible range of 0 to 76 with a mean of 58.02 and standard deviation 4.16. Based on the observed overall attitude scores, the respondents were classified into five

categories as shown in Table 3. The majority (60%) of the respondents had highly favourable attitude towards NATP (phase-I) interventions compared to 39.09% had moderately favourable attitude and only 0.91% had slightly favourable attitude towards NATP (phase-I) interventions. The findings may be due to the CIG members get various interventions from NATP (phase-I) interventions such as technical advices and other input

facilities such as seed, fertilizers etc. related to their farming activities which help to increase their diversified crop production. Das and Chayal (2010) found that the majority (59%) of the farmers had favourable attitude while 10% had unfavourable attitude and 31% had neutral attitude towards ICT. Samad (2010) found that the majority (69.84%) of the farmers had favourable attitude while 1% had unfavourable attitude and 29.16% had neutral attitude towards aerobic rice cultivation. Haque (2006) observed that two-thirds of the farmers in organic farming group had highly favourable attitude towards organic farming. On the other hand, more than half (56%) of the conventional farmers had shown moderately favourable attitude towards organic farming.

Relationship between characteristics

The purpose of this section is to explore the relationships between each of the selected characteristics of the CIG members and their attitude towards NATP (phase-I) interventions. The relationship between the selected characteristics of the CIG members and their attitude towards NATP (phase-I) interventions is presented in Table 4. Pearson's Product Moment Correlation Coefficient (r) was used to test the null hypothesis concerning relationships between any two variables. Out of eleven variables, the relationships of four variables with CIG members' attitude found significant and positive and seven were non-significant. Farm size of the respondents showed significant positive relationship (r=0.234*) with their attitude towards NATP (phase-I) interventions.

Table 3. Distribution of the CIG members according to their overall attitude score towards NATP (phase-I) interventions

phase 1) meet ventrons						
Categories	Frequency	Percentage	Mean	SD		
Unfavourable attitude (<38)	0	0				
Neutral attitude (38)	0	0	58.02	4.16		
Slightly favourable attitude (39-47)	1	0.91				
Moderately favourable attitude (48-56)	43	39.09				
Highly favourable attitude (>56)	66	60				
Total	110	100	,			

The reason behind this phenomenon may be that CIG members' with relatively large farm size can implement the newly adopted improved farming practices and technical knowledge in their farms for better farm management. This results in higher productivity and improvement of living standard of the CIG members. So, they have favourable attitude towards NATP (phase-I) interventions. Haque (2003) and Ahaduzzaman (2003) found that farm size of farmers had significant positive relationship with the attitude of the farmers in their respective studies. Habib (2010) and Hossain (2002) found no significant relationships between farm size and attitude of the farmers in their respective studies. Annual income of the respondents showed significant positive relationship (r =0.355**) with the attitude of CIG members. It indicated that the CIG members with higher annual income are relatively earlier in adopting any new technology, idea or practice for their better socioeconomic condition. This may be because of favourable attitude towards NATP (phase-I) interventions.

Table 4. Relationship between respondents selected characteristics and their attitude towards NATP (phase-I) interventions

Focus variable	CIG members' characteristics	Co-efficient of co-relation coefficient (r) with df=108
		
	Age	0.007
	Education	0.031
	Household size	-0.171
Attitude of CIG members towards	Farm size	0.234*
NATP (phase-I) interventions	Annual income	0.355**
	Farming experience	0.003
	Organizational participation	0.181
	Training received	0.062
	Credit received	0.027
	Agricultural subsidy received	0.342**
	Extension media contact	0.367**

^{*}Significant at 0.05 level of probability;
**Significant at 0.01 level of probability

Ahaduzzaman (2003) found significant positive relationship between annual income and attitude of farmers towards modern T. Aman technologies. Siddique (2002) and Hossain (2002) found that annual income had no significant relationship with attitude of farmers. Agricultural subsidy received of the respondents showed significant positive relationship (r=0.342**) with the attitude of the CIG members. The findings clearly indicated that there was a positive trend between agricultural subsidy received of the CIG

members and their attitude towards NATP (phase-I) interventions. The reason behind this may be due to the CIG members receive agricultural subsidy show favourable attitude towards NATP (phase-I) interventions than other members who do not receive agricultural subsidy. Samad (2010) found that agricultural subsidy received had significant positive relationship with the attitude of farmers towards aerobic rice cultivation. Extension media contact of the respondents showed significant positive relationship

(0.367**) with the attitude of CIG members. The reason behind this might be CIG members with high extension media contact take decisions and other activities about farming practices. On the other hand, the CIG members who had low extension media contact were unable to take decision and other activities about farming practices provided by NATP (phase-I) interventions. Khan (2012) and Zakir (2010) found significant positive relationship between the extension media contact and the attitude of the farmers in their respective studies. On the other age, education, household size, experience, organizational participation, training received and credit received had no significant relationships with the attitude of CIG members towards NATP (phase-I) interventions. So, these characteristics had no significant contribution on the attitude of CIG members.

Conclusion

The study concludes that most of the respondents (60%) had highly favourable attitude towards NATP (phase-I) interventions. So, the beneficiaries especially the CIG members were very enthusiastic and ambitious about NATP (phase-I) interventions. This may occur due to the CIG members get various interventions from NATP (phase-I). These interventions include technical advices and valuable information related to farm management, training facilities, input facilities such as seed, fertilizers etc. These activities resulted in higher agricultural productivity, strengthening of social and economic capital which help to form favourable attitude towards NATP (phase-I) interventions. Among the 11 selected characteristics of CIG members four characteristics namely farm size, annual income, agricultural subsidy received and extension media contact seem to have major contributions on CIG members' attitude towards NATP (phase-I) interventions. Considering the findings of the study, some essential policy recommendations have been arisen which are: various extension activities related to farm management need to be strengthened to give support to the CIG members for better farm management and improvement of crop productivity. Though the overall attitude of CIG members towards NATP (phase-I) interventions was highly favourable, it is still possible to improve the attitude of CIG members. The credit, input, training facilities and other support systems should be more simplified, clear and rational to improve the attitude of CIG members towards NATP (phase-I) interventions.

References

Ahaduzzaman, M., Ulla, S.M.A. and Islam, M.R. 2003. Farmers' Attitude towards Modern T. Aman Technologies. *Journal of Agricultural Education and Technology*, 6(1&2): 17-20.

Baldwin, 1967. Reading in Attitude: Theory and Measurement. In: G.W. Allport (ed.) New York: John Willey and Sons, Inc. P. 7.

- BARC, 2014. National Agricultural Technology Project (NATP):
 Phase-1-Bangladesh Agricultural Research Council.
 Retrieved from https://www.barc.go.bd
- BBS, 2015. Statistical Year Book of Bangladesh, Bangladesh Bureau of Statistics, Statistical Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.
- BBS, 2016. Statistical Year Book of Bangladesh, Bangladesh Bureau of Statistics, Statistical Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.
- BBS, 2017. Statistical Year Book of Bangladesh, Bangladesh Bureau of Statistics, Statistical Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.
- Bogardus, E.S. 1960. Immigration and Race Attitude. Boston: Health Adopted from Harris, C.W. (ed.) 1960. Encyclopedia of Educational Research. (ed.), Vol. 1.
- Business Dictionary. 2012. Definition of Attitude. Retrieved from http://www.usinessdictionary.com/definition/attitude.html
- Carney, D. 1998. Implementing the Sustainable Rural Livelihoods Approach. In: D. Carney (ed.), Sustainable Rural Livelihoods, What Contribution can We Make. DFID, London, UK.
- Cherry, K. 2012. How Attitude Forms, Change and Shape Our Behavior. Retrieved from http://psychology.com/od/socialpsychology/a/attitudes.htm
- Das, B.L. and Chayal, K. 2010. Farmer's Experience with ICTs on Transfer of Technology in Changing Agri-rural Environment. Indian Research Journal of Extension Education, 10(3), 114-118.
- DFID. 1998. The sustainable livelihood framework. Retrieve from https://www.google.com/search?q=DFID+Sustainable+live lihood+framework
- Encyclopedia Britannica. 2005. Encyclopedia Britannica Deluxe Edition Encyclopedia Britannica, Inc. farmers towards Mixed Farming in Sira and Aneket Taluks. *Indian Journal* of Extension Education, 17 (1):11-14.
- Ghosh, M.K. and S. S. Hasan. 2013. Farmer's Attitude towards Sustainable Agricultural Practices. Bangladesh Research Publications Journal, 8 (4): 227-234.
- Habib, M. 2010. Attitude of Block Supervisors towards the Use of Agrochemicals (M.S. Thesis). Department of Agricultural Extension Education, Bangladesh agricultural University, Mymensingh.
- Haque, A.T.M.S. 2006. Comparison of Attitude towards Organic Farming between Organic and Conventional Farmers (M.S. Thesis), Department of Agricultural Extension Education, Bangladesh agricultural University, Mymensingh.
- Haque, M.E. 2003. Farmer's Attitude towards Extension Activities of the Department of Agricultural Extension (M.S. Thesis).
 Department of Agricultural Extension Education, Bangladesh agricultural University, Mymensingh.
- Hossain, M.A., Islam, M.S. and Miah, M.A.M. 2002. Attitude of Island Farmers towards Adoption of Modern Agricultural Technologies. Bangladesh Journal of Extension Education. 14(1&2): 47-51.
- Khan, M.M.A. 2012. Farmer's Attitude towards Modern Jujube Cultivation (M.S. Thesis), Department of Agricultural Extension Education, Bangladesh agricultural University, Mymensingh.
- Likert, R. 1932. A Technique for the Measurement of Attitudes. Archives of Psychology, 140. New York.
- Rosenberg, M.J., and Hovland, C.I. 1960. Cognitive, affective and behavioural components of attitude. In M.J. Rosenberg, C.I. Hovland, W.J. McGuire, R.P. Abelson and J.W. Brehm (Eds.), Attitude organization and change: An analysis of consistency among attitude components: pp.1-14. New Haven, CT: Yale University Press.

- Samad, M.A. 2010. Farmer's Attitude towards Aerobic Rice Cultivation (M.S. Thesis). Department of Agricultural Extension Education, Bangladesh agricultural University, Mymensingh.
- Siddique, A.B. 2002. Attitude of the Farmers towards Improved Winter Vegetable Production in a Selected Area of Gafargaon Upazila under Mymensingh District (M.S. Thesis). Department of Agricultural Extension Education, Bangladesh agricultural University, Mymensingh.
- The Daily Sun. 2018. A success story of NATP (phase-I). Retrieved from www.daily-sun.com/printversion/details/National-Agricultural-Technology-Project-Phase-I.
- Ullah, S.M.A., M.G. Farouque and M.Z. Rahman. 2011. Farmer's Perception of One House One Farm Approach.
- UNDP. 2018. Human Development Index Report, 2018. Retrieved from https://www.hdr.undp.org.
- World Bank. 2018. World Population Review. Retrieved from https://data.worldbank.org
- Zakir, A. 2010. Attitude of Farmers towards the Effect of Pond Ownership on Fish Production (M.S. Thesis). Department of Agricultural Extension Education, Bangladesh agricultural University, Mymensingh.