



Willingness of small and landless female rural youth for selected agricultural activities in income earning

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ABSTRACT

The main purpose of this study was to determine the willingness of female rural youth from small and landless families within the age category of 13-25 years in selected agricultural activities in income earning. The independent variables included 10 selected characteristics of female rural youth namely, age, education, agricultural knowledge, organizational participation, family size of parents/ husband, area of homestead, income of parents/ husband, assets owned, innovation proneness, rural mindedness. The study further explored the relationships between the selected characteristics of female rural youth and their willingness for selected agricultural activities in income earning. Data were collected from a sample of 80 female rural youth from Fakirakanda of Mymensingh district. Data were collected through an interview schedule and analyzed. To measure the willingness of female rural youth for selected agricultural activities in income earning willingness index (WI) was computed to determine the rank order of 20 items on willingness. The WI ranged from 0-300. The proportion of younger youth was higher (38%) in comparison to 'youth' (35%) and 'adult youth' (27%) categories and the large majority of them (40%) had mid-school level education with 'better' (54%) agricultural knowledge. But large proportion of female rural youth (62%) had 'very low' organizational participation and their parents or husband owned 'very small' (76%) homestead with a medium size family (68%), poor income (66%) and having low assets (96%). Over three-fourth of the female rural youth had (64%) medium innovation proneness with medium rural mindedness (60%). The WI for 20 items related to agricultural activities in income earning indicated that indices of 7 items were above 200 and the top three in rank order were 'vegetable cultivation around the homestead' (251), 'husking and boiling of paddy' (226) and 'selling vegetable' (215) and the remaining four were (in order of merit) 'help in intercultural operations' (211), 'modern vegetable cultivation' (205), 'preparing protection of fruit trees by bamboo wall' (202), and 'help in storing the seeds' (200). The overall willingness of the female rural youth for selected agricultural activities in income earning revealed that the largest proportion (59%) was found in the 'medium' category. Out of possible 20 correlations, 7 were statistically significant, of them 4 negatively and 3 positively correlated. Education and rural mindedness had negative relationships with the willingness of female rural youth. Area of homestead (including land) of parents/ husband and innovation proneness had positive relationship with the willingness of female rural youth for selected agricultural activities.

Keywords: Willingness, female, rural youth, income, agriculture.

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INTRODUCTION

The usual scenario in Bangladesh sees women and girl children engaged in activities within the homesteads. The economic activities of women or young women in Bangladesh often go unnoticed mostly because their activities are carried out

within the privacy of the home and hence, they remain invisible and do not carry any significance or real value. Women in Bangladesh spend about 43% of their time in farm production activities (Khair, 1998). Women by all means can be very effective client group of change for better agriculture, better economy, better house and

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better society (Salank, 1988). Women first domesticated crop plants and initiated farming since the dawn of civilization. They have played and continue to play a key role in the conservation of basic life support such as land, water, flora and fauna. Women bear the triple burden of a rural family -child rearing, household duties and farm work. Rural women, thus have been equal partners in agricultural development, their role and participation have been more pronounced in the lower socio-economic strata of rural society. The contribution of women have hardly been quantified and recognized. As a result they have been neglected from the main stream of development (Swaminath, 1990). In Bangladesh about 80 % children (10-14 years) and youth (15-29 years) work in agriculture. Nearly one-third of these youth engaged in casual labour without guarantee of work. Most often (especially the female youth) their only compensation are daily meals. This hidden unemployment is higher among the rural youth than other age groups. This situation of rural youth is very grim in Bangladesh (Mia, 1983). The situation will aggravate further if opportunities are not created for the large number of male and female out-of-school unemployed youth. They should be provided with suitable income generating programmes, training and guidance, which are necessary for their proper development.

Agricultural development efforts are primarily directed towards the field and the homestead agriculture is relatively ignored. But rural women specially female rural youth are more involved in homestead production. Vegetable gardening and livestock rearing are more exclusive domain of female activities, while the traditional post-harvest agricultural activities are mostly performed by female rural youth. Though appropriate and planned utilization of homestead by the farm family may meet many necessities and might get economic assistance. For many landless families the homestead area is the only land resource for production. But due to adequate knowledge and attitude towards the technology, they are not able to maximum productivity from homestead resources. Women constitute almost half of the population of Bangladesh and overwhelming majority of them live close to agriculture. Women play a crucial role in agricultural development of

the country and they have been directly involved in agricultural production and productivity. Large majority of this rural female population (at least one-third) are female youth in the age category of 14-25 years. These young women participate in various agricultural activities related to crop, livestock, fisheries and home-forestry based on different agro ecological zones of the country. Female youth and young housewives look after the livestock and do post crop-harvest activities at home while male family members work in the field. The vegetable cultivation in the rural families, poultry-raising, goat-raising are mostly undertaken by these young females. Such activities obviously supplement family income and generate employment for women. Hence, the task of integrating large number of female rural youth/young housewives into the mainstream of recognized development activities in agricultural sector is of tremendous importance.

Albeit their direct and indirect contribution in agricultural these female rural youth have become a burden to their parents and reflect a bleak picture in health, education, social security and job opportunity. The young rural females fight against heavy odds, live within massive poverty without personal wealth and security. The female youth are most often dropout at mid-school, remain unemployed and are not provided with the kind of programmes guidance and training urgently needed for their development. Agricultural development programmes are planned by men, aim at men and executed by men. Hence, the female rural youth, who constitute a significant rural population have hardly been involved in agricultural extension programmes in the nation. Ways must be found to involve the great potential force of these female rural youth in the process of national planning to contribute to agricultural production, their self-employment and uplift of rural life. Considering the present situation of female rural youth, the researcher deems it proper to undertake the present study to determine and describe the willingness of female rural youth from landless and small families for selected agricultural activities. And to explore the relationships between the selected characteristics of the female rural youth and their willingness for selected agricultural activities and problem confrontation in selected aspects related to

vegetable cultivation. It is expected that findings of the study would be helpful to formulate for the female rural youth programme to be launched by Department of Agricultural Extension (DAE), Department of Livestock Service (DLS), and Department of Fisheries (DoF), Bangladesh Academy for Rural Development (BARD) and by the Department of Youth Development in Bangladesh.

MATERIALS AND METHODS

Research area

The study was conducted in village Fakirakanda of Boyra Union in Sadar Upazila under Mymensingh district. The poverty of the poor rural families, the unemployment of the young females and their undeveloped socio-economic situation have led the researcher to undertake this village as a locale of research.

Population and sample

The numbers of rural families in locale of research were 169. However, number of small (15) and landless (120) rural families were 135 of them 80 families were having female rural youth in the age between 13 to 25 years which constituted the population of the study. For collecting data samples were taken from female rural youth families. One female rural youth was selected from each of these 80 rural youth family, when there was more than one female rural youth in a family, the youth was selected by random sample method. Thus 80 female rural youth constituted the sample for this study.

Variables and their measurement

Personal (Age, Education, Agricultural knowledge); Social (Organizational participation, Family size of parents/husband); Economic (Area of homestead including land of parents/husband, Income of parents/husband and Assets owned); Psychological (Innovation proneness, Rural mindedness) characteristics of the participants were considered independent variables in this study.

For selection of independent variables, the researcher went through the relevant literature as far as possible. Discussion with teachers, experts in the relevant fields and research fellows in agricultural extension and related disciplines were done to select the variables.

Measurement of the dependent variables

Willingness of female rural youth for selected agricultural activities in income earning

Before making the draft of the questionnaire the study areas were visited several times and keenly observed the willingness of female rural youth in different economic activities, especially agricultural in nature. After experiencing this, a list of 20 income earning agricultural activities were prepared in which they had willingness. In measuring willingness 20 items related to field crop, vegetable, rice, poultry and cattle, fish culture, and fruit tree planting a 5 point Likert scale was developed, designed with the 5 kind of responses related to respondent's willingness in agricultural activities in income earning. But during pretest the female rural youth faced difficulties to answer the questions accurately. Finally, 4-point rating scale, a modified form of Likert type, was used with responses namely, high, medium, low and no willingness and the scores assigned for each kind of response was 3,2,1 and 0 respectively to measure the willingness. Each respondent was asked in each activity to indicate her willingness in one of the four responses and the researcher gave check mark accordingly. Score for willingness of a respondent in 20 activities could range from 0 to 60. To have an insight into the willingness of female rural youth in selected activities first, i) frequency distribution and rank order of each income earning agricultural activity was done by developing Willingness Index (WI) and then ii) overall willingness of a respondent was measured by adding the scores of the respondent in 20 agricultural activities. Suitable categories were done based on the scores of willingness.

Measurement of the independent variables

Age

Age of a female rural youth was defined as the period of time from her birth to the time of this interview. It was measured in terms of actual years. So a score of one (1) was assigned for each years of her age.

Education

Educational level of a respondent referred to grades in the formal educational institutions at the time of interview. It was measured in scores, One score was given for passing each level in the educational institution. For example, if a respondent had the education equal to or equivalent to class V, her education score was taken as 5. If the respondent passed the final examination of IX, her education score was taken as 9. If the respondent did not know how to read or write, her education score was taken as zero (0). A respondent who could sign, her education score was given 1 and a respondent who could read only her education score was also 1, a respondent who could read and write her educational score was 2.

Agricultural knowledge

Agricultural knowledge of female rural youth referred to their ability to recall or recognize item of information related to crop, vegetable and fruits, forestry, fisheries and livestock. Each respondent was asked to answer 25 questions (item no. 3 in the interview schedule). It was measured in scores. A score of 2 was assigned to each correct answer, 1 partially correct and 0 for wrong answer. A score of respondent thus, could range from 0 to 50; 0 when for all wrong answers and 50 when all correct.

Organizational participation

Organizational participation of a respondent was measured according to the nature and duration of her participation in different organizations. For computing organizational participation score a formula was developed as given below:

$$\text{Organizational participation} = \sum P \times D$$

Where,

P= Participation score

D= Duration score

Participation score was computed in the following manner for participation in each organization;

Nature of participation	Score
No participation	0
Ordinary member	1
Executive committee member	2
Officer of the executive committee	3

For measuring the duration score, a score of 1 was assigned for each year of the participation in each organization.

Family size of parents/husband

The family size was measured by the number of family members of a female rural youth's family. The family members included the respondent and other dependent members.

Area of homestead of parents/ husband

Area of homestead was measured in terms of hectares and one score was assigned for each hectare. Cultivation including homestead, garden and pond of her family either owned by them or taken as barga or lease was included in the area of homestead of the family.

Family income

Family income was referred to the total annual earning in taka of all family members of the concerned female rural youth from different sources such as farming service, livestock, business, fisheries, etc. The methods of ascertaining income from different sources were involved in three phases. In the first phase the yields of all the crops in the preceding year was noted. Then all the yields were converted into cash income according to the prevailing market price. The prices of other enterprises (e.g. cows, goats, poultry, milk, egg, fishes, etc) were also added to the price of crops. In the second phase, earnings of each respondent herself or her husband or other from different sources (like service, business, labour) were also included in calculating the income. Yearly earnings from farming and other

sources were added together to obtain total family income of a respondent. A score of 1 was given for each thousand taka.

Assets owned

Family assets of female rural youth referred to the assets and tangible properties own and used by the parent of the landless and small female rural youth. These assets were subdivided in to 5 categories e.g. i) furniture ii) household materials iii) domestic animal and birds iv) agricultural implements v) number of house and nature. First approximate market values of each item were estimated from the responses of a respondent in taka, then all the values of the 5 categories added to get total family assets of a respondent. A score 1 was assigned for each thousand taka of total value of assets of a respondent to obtain her assets score.

Innovation proneness

Innovation proneness may be defined as the state of an individual who is mentally inclined in using or predisposed to accept an innovation or technology. Innovation proneness of a female rural youth in the study was measured by using 10 statements (5 positive and 5 negative). A four point modified Likert-type scale was used to measure the innovation proneness. The responses-very right, right, little and not at all and the score assigned for each were 3, 2, 1 and 0 respectively for positive statements, and the scoring was reversed for negative statements. The score of a respondent was determined by adding the score of responses against all the statements. Innovation proneness score of a respondent could thus range from 0 to 30.

Rural mindedness

Rural mindedness refers to the belief and inclination towards rural and agricultural code of female rural youth. It was measured by computing score with the help of ten statements, six positive and four negative statements. A 4-point modified Likert-type scale was used to assign scores in the following way:

Responses	Weights for positive statements	Weight for negative statements
Disagree	0	3
No opinion	1	2
Moderately agree	2	1
Agree	3	0

Rural mindedness score of female rural youth could range 0 to 30.

Data collection and analysis

A carefully designed interview schedule was used in collecting data to determine the willingness of female rural youth for selected agricultural activities and their problem confrontation in vegetable cultivation and to determine the ten selected characteristics of the female rural youth. The draft interview schedule was prepared in Bangla in accordance with the objectives of the study. The interview schedule was pre-tested on the 8 female rural youth of the study area. Necessary corrections, additions and modifications were made in the interview schedule based on the pre-test results. The modified and corrected interview schedules were then printed in final form

The interview was conducted with each respondent individually. While collecting data the researcher explained the purpose of collecting data to the respondents and also to their parents in a simple and local language. Whenever, a respondent felt difficulty for better understanding the questions, the researcher took proper care to explain and clarified the respondent. In some cases the researcher failed to meet with respondents at their residence for interviewing. To overcome such problem the researcher repeated her visit.

Statistical analysis

In order to explore the relationships between independent and dependent variables co-efficients of correlation (r) were computed. Five % (5%) level of probability was used as the basis for rejecting any null hypothesis. If the computed 'r' value was equal to or larger than the table value at 0.05 level of probability with (n-2) degree of freedom, the null hypothesis was rejected and it was concluded that there was a significant relationship between the variables concerned. If

the computed 'r' value was found to be smaller than the table value at 0.05 level of probability, the concerned null hypothesis could not be rejected and led to the conclusion that there was no significant relationship between the concerned variables.

RESULTS AND DISCUSSION

Willingness of female rural youth for selected agricultural activities in income earning

For clearer understanding of willingness and problem confrontation, index for each item along with rank order was computed by using the following formula:

Willingness Index (WI): $W_{nw} \times O + W_{lw} \times I + W_{mw} \times 2 + W_{sw} \times 3$

W_{nw} = Percentage of female rural youth with no willingness

W_{lw} = Percentage of female rural youth with low willingness

W_{mw} = Percentage of female rural with medium willingness

W_{sw} = Percentage of female rural youth with high willingness

WI in respect any agricultural activity could range from 0 to 300, 0 indicating no willingness and 300 high. Based on willingness indices of 20 agricultural activities, rank order was done for each selected activity.

Willingness of female rural youth for selected agricultural activities in income earning

Willingness Indices (WI) of female rural youth on 20 items of agricultural activities ranged from 36 to 251 against a possible range of 0 to 300. WI of 7 agricultural activities were above 200, 9 above 100 and 4 below 100. Based on WI first five activities were i) vegetable cultivation around the homestead (251), ii) husking and boiling of paddy (226), iii) selling vegetable (215), iv) help in intercultural operations (211), v) modern vegetable

cultivation (205). Selling milk (73), preparation and procuring of fish feed (46), preparing fish net (36) had the lowest three WI respectively (Table 1).

Twenty selected agricultural activities to invest the willingness of female rural youth were mostly related crop, livestock and fisheries production. Data contained in table 4.1 clearly reveal that WI of the first seven agricultural activities were related to vegetable and crop production. This means female rural youth of poor families most often do some kind of vegetable and fruit cultivation and post harvest activities in and around the homesteads largely for their own family consumption and as domestic work. The female rural youth are normally exposed to vegetable production activities. Considering the environment and natural willingness of female youth, the programme content in female youth extension programme should emphasize on summer and winter vegetable cultivation.

Overall 24 % showed moderate willingness and nearly three-fifths (59%) showed little willingness or selected agricultural activities in income earning. The natural willingness of significant proportion (Table 2) of female rural youth indicate that the female youth extension programme need to have emphasis on homestead vegetable cultivation for their own consumption to save money, to upgrade nutritional status and transfer technology, to earn cash from local market and finally and to make them self-employed.

Selected characteristics of female rural youth

Age

Bangladesh has been a land of young individuals considering both male and female. Most of the statistics related to population reveal that the population within the range 0 to 15 would be around 50 % and 0 to 20 around 64 %.

Table 1
Willingness of female rural youth for agricultural activities in income earning on 20 items.

SI#	Items of willingness for selected agricultural activities in income earning	Female Rural Youth (N=80)				Index Number	Rank Order
		High %	Medium %	Low %	No %		
1.	Vegetable cultivation around the homestead	55	41	4	0	251	1
2.	Husking and boiling of paddy	40	46	14	0	226	2
3.	Selling vegetable	34	49	15	2	215	3
4.	Help in intercultural operations	33	45	22	0	211	4
5.	Modem vegetable cultivation	25	60	10	5	205	5
6.	Preparing protection of fruit trees by bamboo wall	21	64	11	4	202	6
7.	Help in storing the seeds	20	61	18	1	200	7
8.	Marketing of eggs	28	45	21	6	195	8
9.	Preparing pit and tree planting	11	73	15	1	194	9
10.	Caring the poultry	24	45	27	4	189	10
11.	Collecting vegetable	5	61	30	4	167	11
12.	Irrigation in vegetable	5	60	28	7	163	12
13.	Producing of good seeds	0	55	38	7	148	13
14.	Preparing and procuring of poultry feed	7	54	16	23	145	14.5
15.	Storing fruits	1	48	46	5	145	14.5
16.	Controlling pest attack	2	29	59	10	123	16
17.	Preparing fuel from cowdung and selling	6	20	39	35	97	17
18.	Selling milk	1	16	38	45	73	18
19.	Preparation and procuring of fish feed	3	10	17	70	46	19
20.	Preparing fish net	0	6	24	70	36	20

Table 2
Classification of female rural youth according to their willingness for selected agricultural activities in income earning (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
Very little (18-27)	14	17	32.23	5.66	0-60	18-44
Little (28-36) Moderate	47	59				
37 and above)	19	24				
Total	80	100				

Table 3
Classification of female rural youth according to their age (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
Younger youth (13-16)	30	38	18.46	3.67	...	13-25
Youth (17-20)	28	35				13-25
Adult youth (21 -25)	22	27				
Total	80	100				

Table 4
Classification of female rural youth according to their education (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
Illiterate (0)	5	6	5.34	3.31	---	0-10
Low literate (1-3)	20	25				
Moderate literate (4-6)	23	29				
Mid School (7-10)	32	40				
Total	80	100				

Table 5
Classification of female rural youth according to their agricultural knowledge (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
Poor (19-27)	20	25	31.00	5.64	0-50	19-44
Better (28-35)	43	54				
Good (36 and above)	17	21				
Total	80	100				

According to data showed in table 3 further youth extension programme, comparatively younger female youth would be dominating and a significant target group. The concerned agricultural extension agency should consider this important demographic trend.

Education

Albeit some progress in the rate of literacy in recent decades in the nation, the real situation considering the functional literacy and dropout females is still bleak (Table 4). With such a level of education, the female rural youth would not be able to even in lower level jobs (MLSS).

Data in table 4 indicate that the average female rural youth posses functional literacy to an extent which is an advantage to teach them new

agricultural technology, by giving them useful leaflets, booklets and other related materials.

Agricultural knowledge

Although there has been no specific rural female youth agricultural extension programme, the younger females of rural families of this village get opportunity to know and learn about modern agriculture from their parents (Table 5). Female youth programme is therefore, to be a must organized by the extension agencies of the nation.

Organizational participation

The situation of organizational participation of the female rural youth has been very deplorable. Overwhelming majority of the respondents either have no or very low participation (Table 5).

Table 6
Classification of female rural youth according to their organizational participation (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
No (0)	22	28	1.66	1.77	---	0-7
Very low (1-4)	50	62				
Low (5-7)	8	10				
Total	80	100				

Table 7
Classification of female rural youth according to their family size of parents/ husband (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
Small (1-4)	18	22	5.70	1.71	---	2-11
Medium (5-7)	54	68				
High (8-11)	8	10				
Total	80	100				

Table 8
Classification of female rural youth according to their area of homestead (including land) of parents/ husband (N=80).

Category	Number	Percent	Mean	.SD	Range	
					Expected	Observed
Very small (up to .100)	61	76	0.066	0.058	---	0.001-0.300
Small (.101-.200)	17	21				
Medium (.201-.300)	2	3				
Total	80	100				

Despite the existence of GOs and NGOs working in the locale of research, there has been hardly any organization specifically dealing with this young potential client group. Because of the absence of female youth extension organization, female rural youth from the landless and small rural families have been deprived from the participation in organization as well as from the main stream of development.

Family size of parents/husband

The average family size (5.70) of the female rural youth in the study area is nearly equal to national level and the female youth find this parents/husband families almost property less or asset less (Table 7). It is hence, necessary to think

as how these youngs can contribute to their families.

Female youngs or young wives of such families should do something economically gainful to support their parents/husband to add some substantial income to their families. Hence, it has been highly necessary to organize the female rural youth agricultural extension programme for their economic uplift by gainful and suitable agricultural activities in and around their homestead.

Area of homestead (including land) of parents/husband

In general landless and small rural families have own insignificant amount of land including their

homesteads. Under such circumstances female rural youth can mostly do homestead vegetable cultivation, especially low cost quick growing vegetables in and around their homesteads.

According to data (Table 8) percent of landless families was high and with such an acute situation, this category of rural family members, especially the female youth have very few alternatives than doing income earning vegetable cultivation under

the youth agricultural extension programmes and activities.

Income of family

Large majority of the parents or husbands of the respondents was poor and they lived within massive poverty (Table 9). They have very few activities excepting agriculture to raise their income.

Table 9

Classification of female rural youth according to their income of family (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
Very poor (Up to 20)	12	15	39.54	19.47	---	8-96
Poor (21-50)	53	66				
Medium (51 and above)	15	19				
Total	80	100				

Table 10

Classification of female rural youth according to their assets owned (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
Low (Up to 60)	76	96	28.43	22.59	---	4-165
Low medium (61-110)	3	3				
Medium (111 and above)	1	1				
Total	80	100				

Table 11

Classification of female rural youth according to their innovation proneness (N=80).

Category	Number	Percent	Mean	SD	Range	
					Expected	Observed
Low (12-17)	25	31	19.56	3.32	Medium	0-30
(18-24)	51	64				12-28
High (25 and above)	4	5				
Total	80	100				

Assets owned

96 % of the respondents belonged to low asset owned families (Table 10). Hence, the female young's of these families fight against heavy odds such as low literacy, malnutrition, no medicare, no income sources, cannot develop skill and have no good recreation for their body and mind.

Innovation proneness

There have been many kinds of agricultural and other development programmes for the adults in the locale of the study where female rural youth have little participation but their young's have better modern exposure in different activities learned from neighbours and other families while they work as farm labourers (Table 11).

Table 12

Classification of female rural youth according to their rural mindedness (N=80).

Category	Number	Percent	Mean	SD	Range		
					Expected	Observed	
Low (12- 18)	27	34	Medium	19.86	4.18	0-30	12-30
(19-25)	48	60					
High (26 and above)	5	6					
Total	80	100					

Most of the studies reveal that the young individuals have more proneness to accept new ideas and things as well as agricultural technologies. Such favourable background of the client group would be highly helpful to organize female youth extension programmes.

Rural mindedness

Majority of the young females have rural mindedness in this study. The pulse of the client group has a great advantage to organize and execute female youth extension programme.

Relationship between independent and dependent variables

The present study included 10 independent and 2 dependent variables. Hence, there was possibility of 20 correlations. Out of 20 possible correlations, 7 were statistically significant. Area of homestead and innovation proneness were positively correlated with their willingness for selected agricultural activities in income earning. Education and rural mindedness were negatively correlated with their willingness for selected agricultural activities in income earning. Innovation proneness was positive and education, rural mindedness had negative relationship with their problem confrontation in vegetable cultivation. However, results of each of the correlation's have been discussed in the following 10 subsections.

Age of the female rural youth and the dependent variables

Age of the female rural youth had no relationship (r' value (0.100) with their willingness for selected agricultural activities in income earning.

Willingness of female rural youth for selected agricultural activities is perhaps existing among them irrespective of their age. Willingness for agricultural activities will be alike as all of them live within acute poverty.

Table 13

Summary of correlation's between independent and dependent variables.

Independent variables	Dependent variables
Age	0.100
Education	-0.289**
Agricultural knowledge	0.092
Organizational participation	0.052
Family size of parents/husband	-0.099
Area of homestead (including land) of parents/husband	0.240*
Income of family	-0.114
Assets owned	0.011
Innovation proneness	0.281*
Rural mindedness	-0.282*

Table value of ' r ' at 0.001=0.361***, 0.01=0.287** and 0.05=0.220* with 78 df * * * indicating significant at 5% level of probability ** indicating significant at 1% level of probability *** indicating significant at .1% level of probability

Out of possible 20 correlations, 7 were statistically significant, of them 4 negatively and 3 positively correlated. Education and rural mindedness had negative relationships with the willingness of female rural youth and their problems in vegetable

cultivation. Area of homestead and innovation proneness had positive relationship with the willingness of female rural youth for selected agricultural activities. Innovation proneness of female rural youth also had positive relationship with their problem confrontation in vegetable cultivation.

CONCLUSIONS

Female rural youth constitute a significant number in rural families, they live within massive poverty with low education, low income, malnutrition and without significant income earning activities. As a result, this potential client group have been turning into a heavy burden to the parents and in the rural social system. It is, therefore, urgent need to organize Female Youth Extension Programmes by the government extension agencies through which they can get care, guidance and training about modern agricultural practices and are exposed to new ideas and things and become able to increase per capita income in their families to become self-employed with modern outlook.

Homestead agricultural activities, especially summer and winter vegetable cultivation, poultry rearing in small scale, fruit cultivation and tree planting would be arise desired and suitable income earning items for Female Rural Youth Extension Programme.

Female rural youth comparatively less educated, having adequate homesteads for cultivation of vegetable and fruits should be given preference over others as participants in the Female Youth Extension Programmes. However, female rural youth having no homesteads for cultivation or living within absolute poverty, should be provided with appropriate income earning activities other than agriculture such as sewing, handicraft, garments making, food preparing etc.

For planning, organizing and executing Female Rural Youth Extension Programme experienced male and female personnel and workers would be highly necessary so as to consider the uniqueness of the client group and related cultural factors.

Female rural youth mostly live with poor and asset less parents of low income and female youth

themselves are further poor. This situation will demand special arrangement of small credit for the participants of Female Youth Extension Programme.

RECOMMENDATIONS

Considering the facts and findings of the study the following recommendations have been presented for organizing female youth in extension programmes in the rural areas of Bangladesh similar to that of Mymensingh:

1) A significant number of female rural youth constitute rural social system of Bangladesh. They and their parents live below the poverty line with limited land, wealth and resources and live without substantial income earning activities This rural families are largely poorer because their younger females need basic necessities of life but their not in a position to contribute to per capita income of the family. Most of there rural young females are low educated or school drop out. These potential manpower should find ways and means to earn and develop. It is, hence, recommended that agriculture and other rural development agencies like DAE, DLS, DoF, D.Forestry, DYD and other, now working in the rural areas should urgently undertake comprehensive Female Youth Extension Programme: i) to teach them scientific homestead agricultural activities and other economic skill using modern technology to enable the neglected female rural youth become significant earning member of the rural families; ii) To undertake various agricultural income earning activities in and around their homesteads to render per capita income for their families; iii) To arrange small credit and short term loan to the participants and their husbands/fathers to encourage them to undertake specific project in respect of vegetables, livestock, fruit gardening, dress making, handicrafts and others which would return cash in a shorter time.

2) Rural female youth from small and landless families would need continuous technical assistance from high level technical personnel of agricultural development agencies. It is recommended that extension personnel and workers who have some experience in youth

work/organizations should be selected to organize and supervise rural youth programmes.

3) A large number of female youth showed explicit willingness for selected income earning agricultural activities, and desired to have youth programmes in the villages, it is recommended that need based training programme should be developed and implemented extensively to improve the skill of rural female youth in different cash earning agricultural production activities and thereby increase income. The important areas of training should be: i) vegetable cultivation around the homestead, ii) improve technique of rice processing, iii) techniques of agricultural product marketing, iv) improve techniques for seed preservation and v) improve management for rearing poultry etc.

4) Extension services should be strengthened particularly for women. Due to social systems and religion, rural women are reluctant to come in contact with male extension workers. So, separate set of extension workers are to be engaged for effective and successful implementation of the female youth programmes and activities.

5) Area of homestead and innovation proneness of female rural youth have significant relationships with their willingness for selected income earning agricultural activities but education and rural mindedness had negative relationship with their willingness and the remaining variables like age, agricultural knowledge, organizational participation, family size of parents/husband, income of family and assets owned had no relationship with their willingness, hence, it is recommended that to make the female youth programs effective and successful in the initial stage, there is a need to involve: i) all aged categories of female rural youth who belongs to small landed and less educated, in receiving useful training to gain knowledge and skills; ii) more

innovation proneness rural female youth group and iii) to enable them in successful self employment which would be examples in the rural social systems.

6) Considering the restricted movement of young females beyond their homestead in the rural areas and their willingness for vegetable cultivation, husking and boiling of paddy, intercultural operations of fruit trees and poultry rearing, it is recommended that training in this respect has to be arranged in confined campus and with security while the female youths are in movement and attending training classes.

7) Considering the intensive activities needed in female youth programmes related to agricultural activities and involvement of personnel and workers, the youth programmes would need significant amount of funding, it is recommended that female youth programmes should be approved and funded by the government extension agencies with partial local support and the phase wise financial assistance should be assured by the government extension agencies and donor agencies.

REFERENCES

- Khair MS (1998). Struggling Against the "Doldrums": The Public-Private Dichotomy and the Bangladesh Women. *Social Science Review*, 1:101-118.
- Salank MI (1988). Women-The Effective Agents of Change. *Appropriate Technology for Farm Women. Proceedings and Recommendations*, Vigyan Bhavan, New Delhi.
- Swaminath MS (1990). Impartive Rural Women Users' Perspective to Agricultural Research and Development. *Women in Agriculture-Technology Perspective*. IFWA, Krishi Anusandan Bhawan, Pusa, New Delhi-110012.
- Mia A (1983). *Country Monograph on the Profile of Youth of Bangladesh*. ESCAP Bangkok.