

**PARTICIPATION OF RURAL YOUTH IN SELECTED INCOME  
GENERATING ACTIVITIES RELATED TO AGRICULTURE**

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GENERATING ACTIVITIES RELATED TO AGRICULTURE**

**By**

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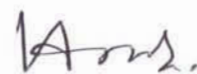
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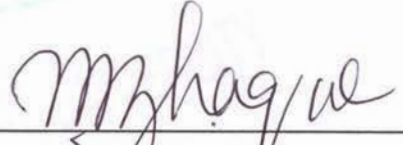
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## CERTIFICATE

This is to certify that the thesis entitled "*PARTICIPATION OF RURAL YOUTH IN SELECTED INCOME GENERATING ACTIVITIES RELATED TO AGRICULTURE*" submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of *MASTER OF SCIENCE IN AGRICULTURAL EXTENSION AND INFORMATION SYSTEM*, embodies the result of a piece of bona fide research work carried out by *Abdur Razzak Patwari, Registration No. 01059*, under my supervision and guidance. No part of this thesis has been submitted for any other degree or diploma.

I further certify that any help or sources of information as has been availed of during the course of this inquire have been duly acknowledged and the contents & style of the thesis have been approved and recommended for submission.

**Dated:**  
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*Dedicated To*

*My Beloved Parents*



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## ABBREVIATION

BBS	=	Bangladesh Bureau of Statistics
BADC	=	Bangladesh Agricultural Development Corporation
BARI	=	Bangladesh Agricultural Research Institute
BRAC	=	Bangladesh Rural Advancement Committee
<i>et al.</i>	=	All others
etc.	=	et cetera, and the other
DAE	=	Department of Agricultural Extension
DOF	=	Development of Fisheries
DLS	=	Department of Livestock Services
FFA	=	Future Farmers of America
IGAs	=	Income Generating Activities
NGOs	=	Non-Government Organizations
PARD	=	Pakistan Academy for Rural Development
PI	=	Participation Index
PCI	=	Problem Confrontation Index
TRYSEM	=	Training of Rural Youth for Self Employment
UNDP	=	United Nations Development Programme
USA	=	United States of America

# **PARTICIPATION OF RURAL YOUTH IN SELECTED INCOME GENERATING ACTIVITIES RELATED TO AGRICULTURE**

## **ABSTRACT**

The main purpose of the study was to determine the rural youths' participation in selected income generating activities (IGAs) related to agriculture. The study was conducted in two selected villages under Barisal district at Agailjhara upazila. Data for this study were collected from a proportionately random sample of 100 rural youths by using an interview schedule during 21 September to 22 October, 2007. Majority (51 percent) of the rural youths had high participation, while 31 percent medium and 18 percent low participation. Correlation analysis indicated that among nine selected characteristics of the rural youths 5 namely education, farm size, annual family income, training exposure and daily time use had significant positive relationship with their participation in selected agricultural income generating activities and the rest 4 characteristics namely age, family size, rural mindedness and credit received of the rural youth had no significant relationship with their participation in selected agricultural IGAs. On the basis of Participation Index (PI), it was observed that poultry rearing, vegetable cultivation, and cattle rearing were the major three selected agricultural IGAs.



# CHAPTER 1

## INTRODUCTION

This study was undertaken to have an understanding of the existing participation status of the rural youth in selected income generating activities (IGAs) related to agriculture. Every year a large proportion of rural youths particularly dropouts from school are pouring into rural labor force. But they remain uncared, mostly without any guidance and agricultural extension programmes by which they can get involved in income generations activities. It was felt that such an investigation and understanding might be helpful in planning, organizing and in executing effective youth extension program by the concerned agencies. This special type of extension program involving this innovative client group might bring a new dimension in extension programmes as well as self employment of the rural youth.

### 1.1 General Background

In the context of agricultural and rural development, rural youth deserve attention in three respects, namely, as beneficiaries of development, as participant/contributors and as future adult contributors to agricultural and rural development. Hence, it is a valuable proposition to augment the knowledge and skills of rural youth who constitute the largest prominent rural labor force. Young people are the future citizens of a nation and they should be given high priority in national plans to bring into the mainstream of development process. Increasing population and massive poverty in the rural areas have been a great threat to the development of Bangladesh. In Bangladesh, total population and its density is 140.6 million and 953 per square kilometer respectively. About 76.61 percent of its total population lives in rural areas (BBS, 2007). The age group of 15-30 years nearly accounts for 32 percent of the total population (Anonymous, 2004). About 80 percent of these youth live in rural areas; roughly half of them belong to less-landed rural families and hardly have any employment opportunity to develop their skill. But yet there is a long way to offer the vast population a reasonable standard

of living and social uplift. There remains yawning gaps in economic growth with very poor rural people. Poverty alleviation and employment generation for the vast segments of the population, especially the young, have hardly been a success (Mia, 2002). But utilization of rural youth's energy is must for the socioeconomic development in the country. The rural youths' energy should be brought into operation in development activities like highly demanding improved vegetable cultivation, livestock and poultry rearing, fish cultivation, tree plantation etc. for making them self-employed and healthy citizens of the country. The importance of rural youth in developing their habitans and environment, bringing changes to their production systems, introducing new technology, in questioning existing power structures and changing age old inhibitory social beliefs and attitudes have been articulated several times over. Young people are the key to sustaining long-term social and economic development, and are an integral part of rural community. Thus, rural youths play an important role in shaping a successful future for rural societies the world over.

## **1.2 Present situation and Activities of Rural youth**

The present situation of rural youth in our country can generally be characterized by illiteracy, lack of educational and training opportunities, unemployment, under-employment and the flight of large numbers of rural youth to the cities. This situation is likely to deteriorate if a significant effort is not made to improve it. Already young people are bearing a disproportionate burden of the growing austerity afflicting the entire country.

In recent years, the adequacy of educational policies and programmes as the main vehicle of national youth development has been called into question. Educated youth are dissatisfied with the irrelevance of available learning opportunities. Despite continued expansion of educational facilities, evidence indicates that, for the foreseeable future, the absolute numbers of persons of school age who are not in school and not employed will continue to increase.



The number of females enrolled in school has increased substantially during the past several years. However, girls continue to be a minority among students at all levels. The problem is more serious in rural areas, where the dropout rate among females is especially high at the primary school level. Existing curricula in rural schools continue to provide female students with relatively little preparation in agricultural and rural development.

The important question is, given that traditional solutions to the problems of rural youth have not worked, how can the needs, rights, potentials and responsibilities of youth be effectively addressed in national and local development plans and programmes? How can opportunities for young people be created and increased for meaningful participation in the development of their communities and countries?

### **1.3 Statement of the problems**

Rural youths are not merely products of their environment but they also shape it . Active participation of the rural youth in IGAs is of crucial importance for the success of any development programme. Their participation in development activities is expected to affect their lives in personal, social and economic dimensions by increasing their access to and control over the resources. Considering the high importance for organizing and developing the youth extension programmes and to have an understanding of the present participation in selected agricultural IGAs and the characteristics of the youth, the researcher decided to undertake a study entitled "Participation of Rural Youth in Selected Income Generating Activities Related to Agriculture."

Considering the Participation of Rural Youth in Selected Income Generating Activities Related to Agriculture this study should be designed to find out the following research questions:

1. What are the different characteristics of the rural youths ?
2. What is the extent of participation of rural youth in selected income generating activities related to agriculture ?
3. Is there any relationship between the participation of rural youth in selected income generating activities related to agriculture and their selected characteristics ?
4. What are the problems faced by the rural youth in participating agricultural IGAs ?

#### **1.4 Specific Objectives of the study**

1. To determine and describe some selected characteristics of the rural youth  
The selected characteristics are :
  - a) Age
  - b) Education
  - c) Family size
  - d) Farm size
  - e) Annual family income
  - f) Training exposure
  - g) Daily time use
  - h) Rural mindedness
  - i) Credit received

2. To determine and describe the extent of participation of rural youth in selected IGAs (poultry rearing, vegetable cultivation, nursery of fruit and tree, fish culture and cattle rearing) related to agriculture
3. To explore the relationship between the selected characteristics of the rural youth and their participation in selected IGAs related to agriculture
4. To assess problems faced by the rural youth in participating IGAs related to agriculture

### **1.5 Limitations of the study**

This study was undertaken to have an understanding on participation of the rural youth in selected IGAs related to agriculture and to explore the relationships with their selected characteristics. Considering the time, money and other necessary resources available to the researcher it was necessary to impose certain limitations as mentioned below:

- i) The study was confined to Bakal and Gaila villages under Agailjhara Upazila of Barisal district.
- ii) Many factors may influence the participation of the rural youth but only nine factors were selected for investigation in this study.
- iii) There were various kinds of activities in which rural youth had participation but this study included selected income earning agricultural activities.
- iv) The population of the study were limited to the age group 15-30.
- v) Conceptually, participation of youths was determined from response of youths, which were collected through their statements.



- vi) The findings of the study will be particularly applicable to the study area. However, the findings may also have general implications for other areas of Bangladesh where socio-economic, physical, cultural & geographic conditions are mostly similar to that area.

It is expected that the findings of this study will be helpful to the planners, administrators, supervisors, field workers, and other related persons/ organizations, who expect to undertake rural youth extension programmes and activities and may find this study valuable & informative. Studies related to rural youth has been an innovative area in the field of social research. Very few researches on the participation for selected agricultural activities has been conducted in Bangladesh. Therefore, findings of this study may contribute to the body of knowledge in matters of rural youth and youth programmes their participation for selected agricultural activities and problem confrontation in IGAs. The findings of this study will also be helpful for planning & execution of the programme of extension services of the department of Agricultural extension (DAE) and other related development agencies.

### **1.6 Assumptions of the study**

The researcher had the following assumptions in mind while undertaking this study:

- i. The respondent rural youth included in the sample were capable of furnishing responses to the question reflected in the schedule.
- ii. The respondents furnished reliable responses.
- iii. The data collected from the respondents were expected to be useful for planning and execution of various programmes in IGAs of Bangladesh.
- iv. The findings were given a clear indication of participation of rural youth in IGAs related to agriculture.

## 1.7 Definition of the Terms

Certain terms used through the investigation are defined below for clarity of understanding:

**Participation :** Participation referred to the extent of performing the development activities including crop development, livestock and poultry development, fish development, cottage industries, adult education etc.

**Rural Youth :** Rural youth referred to the male and female individuals of 15 to 30 years of age living in the rural social system.

**Age:** Age of target people was defined as the period of time between his birth and time of interview for this study.

**Education :** Education referred to the development of desirable knowledge, skill and attitude of an individual through the experience of reading, writing, observation and related activities.

**Family size :** It referred to the total number of family members including the respondent himself, his wife, children and other members.

**Farm size :** Farm size referred to the area including the homestead on which parents of a rural youth do farming and dwell and get full benefit out of farming. Parents may have full benefit from cultivated area either owned by them or obtained on lease from others and half benefit from the area which is either cultivated by them as share croppers or given to others for cultivation on share cropping.

**Annual family income :** Annual family income referred to the amount of money or other gains received annually from agriculture and other sources (business, service, labour etc) during a year.

**Training:** Training referred to the programmes undertaken by different government, semi- government, and non-government organization to improve the skill, knowledge and changing attitude of a person for doing a specific job properly.

**Training exposure :** Training exposure of a youth was defined as the number of days s/he had so far received training.

**Daily time use :** Time use of respondent youth was defined as the length of period during which s/he participated in the different income generating activities related to agriculture.

**Credit received :** Credit received of a respondent referred to the degree to which his /her credit requirement fulfilled by the amount of credit actually received (whether it was received from institutional non- institutional sources).

**Income generating activities :** Income generating activities referred to those activities through which the rural youth could earn directly.

**Youth extension programmes :** Youth extension programmes referred to the programmes and activities assigned by the Government and Non-government organizations for the all-round uplift of rural youth. Such programmes aim to introduce new ideas to develop youth for suitable vocation by self-employment, to teach them improved agricultural practices and to make them messengers of new technology to meet basic needs of life like food, improved health, sanitation and family living for their around welfare and to play their role as useful citizens.

**Extension agencies :** It referred to those organizations, which undertake agricultural development programmes for socio-economic uplift of an area using non-formal educational approach. Agencies may include government organizations like the Department of Agricultural Extension (DAE), Department of Fisheries (DOF), Department of Livestock services (DLS) etc., autonomous agencies,



Bangladesh Agricultural Development Corporation (BADC), Bangladesh Rural Development Board (BARI) and other Non-Government organizations (NGOs) working for rural and agricultural development in Bangladesh.

**Self-employment** : It referred to the employment of the rural youth who is working independently for customers and clients and earning money from his/her occupation.

**Rural mindedness** : Rural mindedness reffers to the belief and inclination towards rural and agricultural code of rural youth.

**Time use** : Time use of a respondent youth was defined as the length of period during which he/she participated in the different IGAs.

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

The present study is mainly concerned with the participation of rural youth in selected IGAs related to agriculture and its relationship with their selected characteristics. The purpose of this chapter is to review the studies and opinions of experts and social scientists having relevance to this investigation based on the major objectives of the study. Research studies relating to youth and rural youth have been an innovative area in Bangladesh. Little work has been done relating to this problem in Bangladesh. The researcher made an effort to search out and review related literature on rural youth conducted in USA, India and Bangladesh. However, the researcher had tried to review also other important descriptive matters related to youth, rural youth, their needs and employment, youth organizations, youth programmes and activities in USA, India and Bangladesh. The chapter has been described in the following sections.



## **2.1 Human needs and Imperative needs of youth**

A part from Maslow's hierarchy of needs, there Imperative Needs of Youth which are integral parts of formal and non-formal are also educational programmes dealing with youth in advanced countries. These are : i) all youth need to develop saleable skills, ii) all youth need to develop and maintain good health and physical fitness and mental health, iii) all youth need to understand the rights and duties of the citizen of a democratic society, iv) all youth need to understand the significance of the family for the individual and society, v) all youth need to know to purchase and use goods and services intelligently, vi) all youth need to understand the method of science, vii) all youth need opportunities to develop their capacities to appreciate beauty in literature, art, music, and nature viii) all youth need to be able to use their leisure time wisely ix) all youth need to develop respect for other persons and x) all youth need to grow in their ability to think rationally.

Singh and Prasad (1967) state that young individuals, like others, have certain basic needs, interests, urges and motives. Youths are growing and so are their needs and interests. If their basic needs and interests are recognized since beginning and they are helped and guided to meet them, it would result in their proper personal, social, economic and spiritual development. The knowledge of their needs and interests will help extension workers and other in organizing and promoting youth club programme on scientific lines. Some of the basic needs of the youth as identified by Singh and Prasad are the need for i) good physique, ii) security and belongingness, iii) love and sympathy, iv) fun and fellowship, v) achievement and competition, vi) recognition vii) new experience viii) sense of personal worth, ix) spiritual development x) sense of continuing learning.

Any curricula, programmes and activates dealing with the young individuals would obviously need physical, psychological and social considerations as they are not adults and their habit formation and socialization are just about to begin. Professional extension personnel and agents of youth extension work would obviously need of gain knowledge about youth and should have special training for future youth extension programmes and activities so that they can carefully handle youths to materialize the desired objectives (Anwar, 1994).

## **2.2 Youth Organizations, Programmes and activities in the USA, India and Bangladesh**

This subsection will briefly review the selected Youth Organizations of their Programmes and activities in USA, India and Bangladesh.

### **2.2.1 4-H Organization in USA**

The 4-H is a youth education programme of the Cooperative extension Service. This informal educational programme is conducted by the U.S Department of agriculture, State Land-Grant Universities, Country Governments and combines the

work of Federal State and local Extension staff and volunteer leaders. Participation in the 4-H programme is open to all interested youth, regardless of race, color, sex, creed, national origin, and demographic area, farm, city and in between. The success of the 4-H programme is attributed to nearly 600,000 volunteer leaders who are backed by strong educational base of the Land-Grant University staff in every country of the nation.

The mission of 4-H is to assist youth in acquiring knowledge, developing life skill, and forming attitudes that will enable them to become self-directing, productive and contributing members of society. This mission is carried out through the involvement of parents, volunteer leaders and other adults who organize and conduct educational activities/projects in community and family settings. Learn-by-doing experiences of 4-H youth are supported by research and extension functions represented by the land-Grant Universities, 1890 Institutions and Tuskegee Institute, USDA, and cooperating countries with support from the National 4-H Council and other private support.

The 4-H participants are youth taking part in programmes provided as the result of action planned and initiated by extension personnel in cooperation with volunteer leadership at the local level. This includes youth participating in programmes conducted through the 1890 colleges and universities and those involved in the expanded Food Nutrition Education Programme.

Youth may participate in 4-H through a variety of programme delivery modes, These include organized 4-H clubs, 4-H special interest or short-term groups, 4-H school enrichment programmes, 4-H instructional TV, 4-H camping or as individual 4-H members.

The 4-H youth contribute to energy conservation, environmental improvement, community service, and food production and participate in programmes that aid youth employment and career decisions, health, nutrition, home improvement, and family relationships, As a result of international cooperation with many countries,



4-H is also contributing to world understanding. In the process, 4-H youth apply leadership skill, acquire positive self-concept and learn to respect and get along with people.

The major activities of 4-H youth programme includes subject-matter skill and knowledge in areas of agriculture, home economics, science and technology, acquire a positive self-concept, explore and evaluate career and job opportunities, establish positive attitudes toward productive use of leisure and participation in community affairs:

**Activities and duties of the 4-H volunteers:**

- i) Acquire skills in interpersonal relationship
- ii) Improve skills essential to fulfilling their 4-H leadership responsibilities.
- iii) Demonstrate leadership skills by helping others learn (Anonymous, 1982).

A dynamic growing organization, 4-H has expanded steadily for the past 25 years the most recent statistics indicate that there are approximately 5 million boys and girls involved in these youth education programme of extension. Since 1914 over 40 million youth from all states, District of Columbia, Puerto Rico, Virgin Islands and Guam have participated in 4-H(Anonymous, 1983).

**Future Farmers of America (FFA)**

The FFA activities stimulate the boys to do more and better work in vocational agriculture. Awards and offered through the FFA for outstanding achievement in such fields as farm mechanics, soil and waste management, dairy farming, crop



production, and farm safety. This stimulates increased effort by the members to gain proficiency in the various phases of agriculture (Spanton, 1968).

### **2.2.2 TRYSEM in India**

Rural youth programmes in India have been launched by a number of government and semi- government organizations for the development of rural youth and to cope with rural poverty. Among them, Training of Rural Youth for Self-employment (TRYSEM) under the Ministry of Rural Development; Pilot young farmers Clubs, Training of Young Farmers both under the Directorate of Extension, and Peoples Action for Development under the Department of Agriculture are famous (Anwar, 1994). Considering it's success this sub-section deals with TRYSEM.

#### **Training of Rural Youth for Self-employment (TRYSEM)**

TRYSEM has been very effective organization for the development of rural youth since 1997. The principle objectives of this programmes are :

- a) Equipping rural youth, ages between 18-35 years, with necessary skills and technology to enable them self-employment. For this purpose, it is envisaged that training will be practical, based on concept of "learning by doing" and will be in selected trades which can lead to self-employment in agricultural and allied sectors, small industries and service sector. It is expected that a detailed exercise of training needs will be carried out at the state and district level for each district. Trade will be selected at district based on local resources and block level taking into account the local needs and potentialities. Each block in the country will cover a minimum of 40 youth per under this training scheme.
  
- b) Trainees to be selected from small and marginal farmers, landless agricultural laborers, artisans and people falling below the poverty line with preference for members of Scheduled Castes/ Tribes and women,

otherwise the selection criteria is supposed to be flexible with no minimum educational qualifications required.

- c) After completion of training, the trainees to be given appropriate credit support for setting up their own enterprise. Since guarantee covered in respect of these loans is proposed to be 90 percent, it is expected that the banks will not require any collateral security/guarantee.

To undertake vocations of self-employment by equipping the rural youth between 18-35 years of age in a block with necessary skills and technology, taking into account the local needs and potentialities youth are included in TRYSEM. These youth mostly belong to small, marginal and landless rural families who live below the poverty line. The trainees are given appropriate credit support for setting up the own enterprise. The major elements of TRYSEM include: i) the trainees, ii) the trainers, iii) community leaders, and iv) the officials (Mishra, 1985)

### **2.2.3 Selected youth programmes and activities in Bangladesh**

Prior to independence of Bangladesh in December 1971 the government did not have any regular and comprehensive youth programme in the rural areas. There was no definite policy for the integrated development of the youth in the country. However, the sporadic programmes launched in the past form time to time during the British and Pakistani rule and the existing programmes for the youth development have been briefly summarized in the following.

#### **V-AID**

The V-AID Programme planned a transformation of rural people towards economic development. It included “ Youth Work” to give an agricultural bias to rural education system with rural schools and students. It also aimed to work whereby the young man could “ learn by doing”. Most projects were in improved methods of



agriculture and community of the 4-H club and Future Farmers of America (FFA) to local conditions.

## **PARD**

Village AID Academy (called Pakistan Academy for Rural Development-PARD) took over Camilla, Kowari thana as its laboratory in 1960. Along with other experiments about the different phases of rural development, the Academy also started work with rural youth. They just began youth work with the students of primary and high schools. Mr. David C. Phillips (1962) a Peace Corps Volunteer in PARD observed the youth programmes in Camilla and helped the Education Committee of the Academy in redrawing a plan for Youth Work. According to Phillips, primary school offered the best opportunities for guided youth work. He helped five schools in holding project exhibitions in 1962. The projects of individual members included the following products-horticulture, poultry, cattle raising, handicraft, clay modeling, stitching and needle work, group projects, such as cultivation of vegetables, fruits and gardening in the school compound were also exhibited. The name of youth clubs in Camilla Kowari thana changed from Chan Tara Club to Sebum Singh.

## **DYD**

Since 1982, the Department of Youth Development under the Ministry of Youth and Sports has been assigned with the responsibility of developing youth force of the nation into a dynamic and sustainable human resource. The underlying theme of the various plans and programmes of this department include: organizing youth of the nation, motivating them, improving their education and skill, providing micro-credit and other facilities to solve their acute unemployment and other related programmes. The following agricultural related programmes had been in the past fifth Five year plan period (1997-2002) by the Department of Youth Development (Anonymous, 1998).

a) **Skill developing training**

- i) The number of residential training centers for livestock, poultry and pisciculture will be gradually increased from the existing 21 centers to 64 centers to cover all districts. By the end of the plan period the total annual capacity of these training centers is expected to reach 40,200 from the present capacity of 13,300.
  - ii) Entrepreneurships training will be imparted to 50,000 young men and women during the plan period.
  - iii) During the plan period, a total number of 1 million young men and women are expected to be trained in different fields.
- b) Self-employment programme have been facilitating through motivation, training, group formation, credit and input support and under this participation of youth will be ensured in various community development activities.
- c) Commodity development programmes involves large scale participation of youth will be ensured in various community development activities.
- d) Development of youth leadership will undertake steps to bring at least two voluntary youth organizations in each union within the network of youth development programmes and other programmes for socio-economic development.
- e) Participation of youth in population and health care programmes and activities have been undertaken in 64 districts and 470 thanas; altogether a 9,75,000 young persons involved brought under this programme.



- i) Supply of input to trained youth programme have been arranging different necessary inputs like improved breed of cows and goats, layer chicken, and others are supplied to the trained youth in undertaking self-employment projects.

### **2.3 Studies related to participation of rural youth in IGAs related to agriculture**

This subsection will deals with the relationship between the participation of rural youth in IGAs related to agriculture and concerned selected characteristic of the study.

#### **Age vs. Participation**

Anwar (1994) in his study found that the age of the rural youth of Mymensingh had significant positive relationship with their participation in agricultural activities while Sardar (1996) found it negatively related with the participation of rural youth in vegetable cultivation for income generation. Faroque and Anwar (1998) study including female rural youth reveled that the age of the female rural youth had significant positive correlations with their participation in selected homestead agricultural activities and their participation in selected livestock activities. But Ali and Anwar (2000) did not find any relationship between the age of the male rural youth and their selected agricultural income-generating activities. In another study in Balkan, Mymensingh, Faroque and Anwar (2001) found negative relationship between age of school dropout rural youth and their participation in agricultural and non-agricultural activities. However, Kabir (2002) and Hoque (2002) found strong negative relationship between the age of the male and female rural youth and agricultural activities in their respective study. But Rashid (2003) in his study found strong positive relationship between age and participation of school drop out teenage rural youth in selected agricultural activities.

### **Education vs. participation**

Anwar and Kashem (1995) found that education of the rural youth had significant positive relationship with their participation in agricultural activities. But Faroque and Anwar (1999) found significant negative relationship between educational status of female rural youth and their participation in selected livestock related income-generating activities. In another study in Bhaluka, Mymensingh, Farouque and Anwar (2001) found negative relationship between the age of school dropout rural youth and their participation in agricultural and non-agricultural activities.

Kabir (2002) found strong negative relationship between the education of male Garo youth and their participation in agricultural activities while Rashid (2003) found it positively related with participation of school drop out teenage rural youth in selected agricultural activities.

### **Family Size vs. participation**

Parveen (1993) found that there was a significant positive relationship between family size of the farm women and their awareness and knowledge on environmental degradation.

Rao (1994) reported that rural women's participation in agriculture was negatively correlated with the size of their family.

Rahman (1995) observed that the family size of the Imams had significant positive relationship with their participation in rural development activities.

Basak (1997) found that the family size of the rural women under BRAC had significant relationship with their impact of participation in BRAC rural development activities.

Begum (1998) found that family size of the rural women had no significant relationship with their poverty alleviation owing to participation in ASA activities.



Alter (2000) revealed in his study that there was significant association between family size and the extent of participation in decision making role in the family with regard to development activities.

Naher (2000) reported that there was no relationship between family size and participation of women in homestead vegetable cultivation, poultry raising and goat rearing but she found significant positive relationship between family size and participation in post harvest practices.

### **Farm size vs. Participation**

Rashid (2003) found no relationship between family farm size and participation of school dropout teenage rural youth in agricultural activities. But Hoque's (2002) study revealed that area of homestead of the female rural youth had significant positive relationship with their willingness for selected agricultural activities in income earning. However, Anwar (1994) did not find any relationship between participation of rural youth in selected agricultural activities and their family farm size. Kabir (2002) and Saha (1997) also did not find any relationship between these two variables. However, Islam (2001) found that farm size of parents of rural youth was negatively correlated with their interest in selected income earning vegetable cultivation.

### **Annual family income vs. Participation**

Saha (1997) study in Mymensingh revealed that family income of rural youth had no relationship with participation in selected agricultural activities. Kabir (2002) in his study did not find relationship of the participation in income earning agricultural activities of male Garo youth with their family income. Shardar's (1996) study in Serajong revealed that family income of the rural youth had no significant relationship with their participation in improved winter vegetable cultivation. Hoque (2002) and Rashid (1999) also did not find any relationship between these two variables in their respective study. However, Islam (2001) and

Ismail (2001) found negative relationship between these two variables in their respective study. But Rashid (2003) found it positively related with participation of school dropout teenage rural youth in selected agricultural activities.

### **Training Exposure vs. participation**

Estep (1985) reported the individuals having more technical knowledge and desire to seek actively for new information on improved practices were important factors relation to adoption improved farm practices.

Volkove *et al.* (1989) found that there was significant change in attitude of rural women from before-training to after-training in improved home making tasks. They said that due to gain in knowledge the attitude become more favorable.

Basak (1997) in his study found that there was no significant relationship between training received of rural women and their impact of participation in BRAC rural development activities.

### **Daily Time Use vs. participation**

Mazumder *et al.* (1983) observed that one-third of the total time was spent by the rural women in agricultural activities and the rest time were spent on household and non-farm activities.

Ahmed (1985) from the report of several micro studies indicated a higher participation rate of women labour force in household activities.

UNDP (1989) on the basis of a recent survey reported that more than half (55 percent) of the rural women were involved in the labour force, mostly working in the field of agriculture, and among the landless or near landless, 60 percent of women worked in agriculture or non-farm employment.

Miah *et al.* (1994) reported that rural women spent 5.72 hours per day in performing 83.5 percent of the homestead farming activities. In another study



Micah and Praveen (1993) found that women earned an average of Tk. 18.16 per annually from homestead farming. This indicates that women play a vital role in performing farming activities in general and homestead farming activates in particular in Bangladesh.

Miah *et al.*(1994) conducted a study to investigate the farming and non-farming activities performed by rural women along their allocation of time in this regard. Finding revealed that the homestead area of the women had significant relationship with their time spent in farming activates.

### **Rural mindedness vs. participation**

Hoqse's (2002) study revealed that rural mindedness of the female rural youth had significant relationship with their willingness of agricultural activities in income earning.

### **Credit Received vs. participation**

Yunus (1993) argued that credit induced self employment was expected to have a spillover effect in the village labour market. Both participants and non-participants households responded to these changes and the impacts depended on these interactions. There were interrelated changes in villages level employment and their impact on overall productivity.

Chandler *et al.* (1995) found in their study that the role of credit availability improved women's participation in economic activities and observed significant negative relationship between credit availability and impact in terms of improved well-being.

Begum (1995) in his study found that credit availability of rural women had positive relationship with their income.

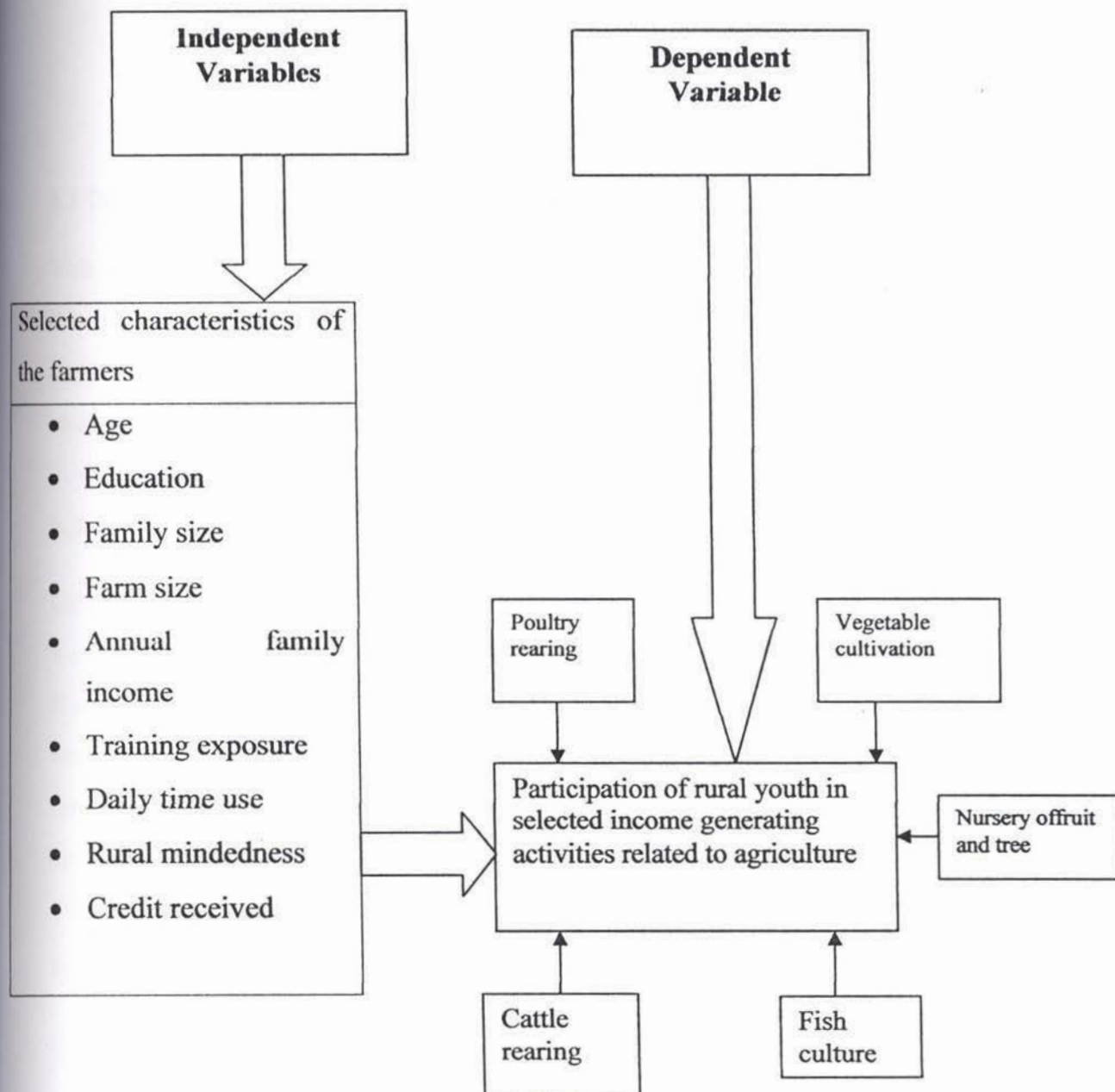
Basak (1997) in his study observed that the credit availability of the rural women under BRAC had no significant relationship in BRAC rural development activities, though a positive trend was observed between the concerned variables.

#### **2.4 The Conceptual Framework of the Study**

It is evident from the past studies that every occurrence or phenomenon is the outcome of a number of variables, which may or may not be interdependent or interrelated with each other. In other words, no single variable can contribute wholly to a phenomenon. Variables together are the cause and the phenomenon is the effect and thus, there is cause effect relationship everywhere in the universe.

The conceptual framework of Rosenberg and Hovland (1960) was kept in mind while framing the structural arrangement for the dependent and independent variables. This study was concerned with the participation of the rural youth in selected income generating activities related to agriculture. Thus the participation of the rural youth in selected income generating activities related to agriculture was the main focus of the study and constituted the dependent variable. The characteristics of the rural youths were considered as the independent variables. It is not possible to deal with all characteristics in a single study. It was therefore, necessary to limit the characteristics, which include age, education, family size, farm size, annual family income, training exposure, daily time use, rural mindedness and credit received.

Based on this discussion and review of literature the conceptual model of this study has been formulated and shown in the Figure 2.1



**Figure 2.1. A Conceptual Framework of the Study**

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter represents with the methods and procedures followed in conducting this piece of research including the operational definition of various important concepts and variables used in the study in collecting valid and reliable information to analyze and interpret those to arrive at a conclusion.

#### **3.2 Locale of research work**

Under Barisal district at Agailjhara Upazila two villages namely Bakal and Gaila were selected as study area. The distance of two villages from Agailjhara upazila Headquarters ranged between 1 to 2 kilometer and from Barisal District town it was about 30 kilometer with good communication by road. The poverty of the poor families, the unemployment situation of the rural youths and their socio economic situation have lead the researcher to undertake these villages as locale of research. The figures 3.1 and 3.2 are showing Agailjhara upazila of Barisal district and the study area under Agailjhara upazila, respectively.



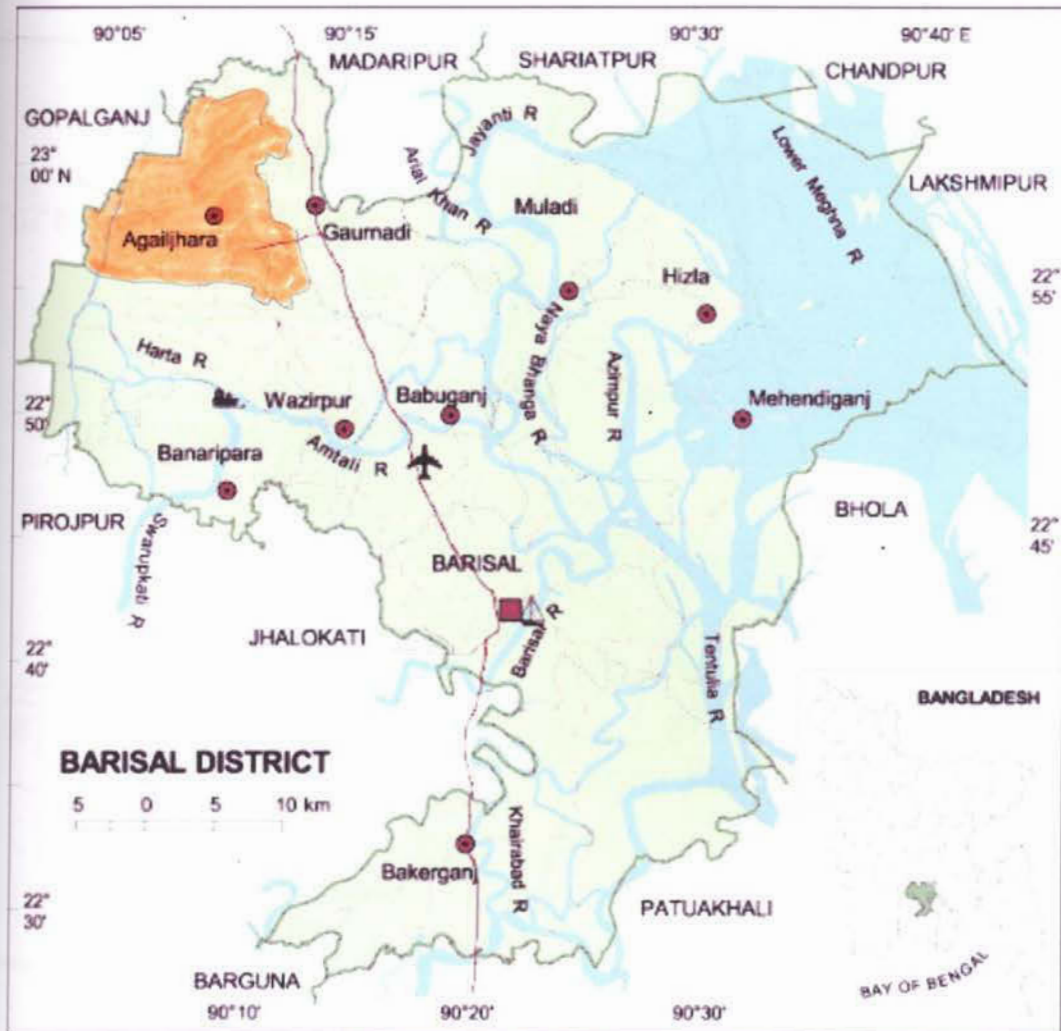
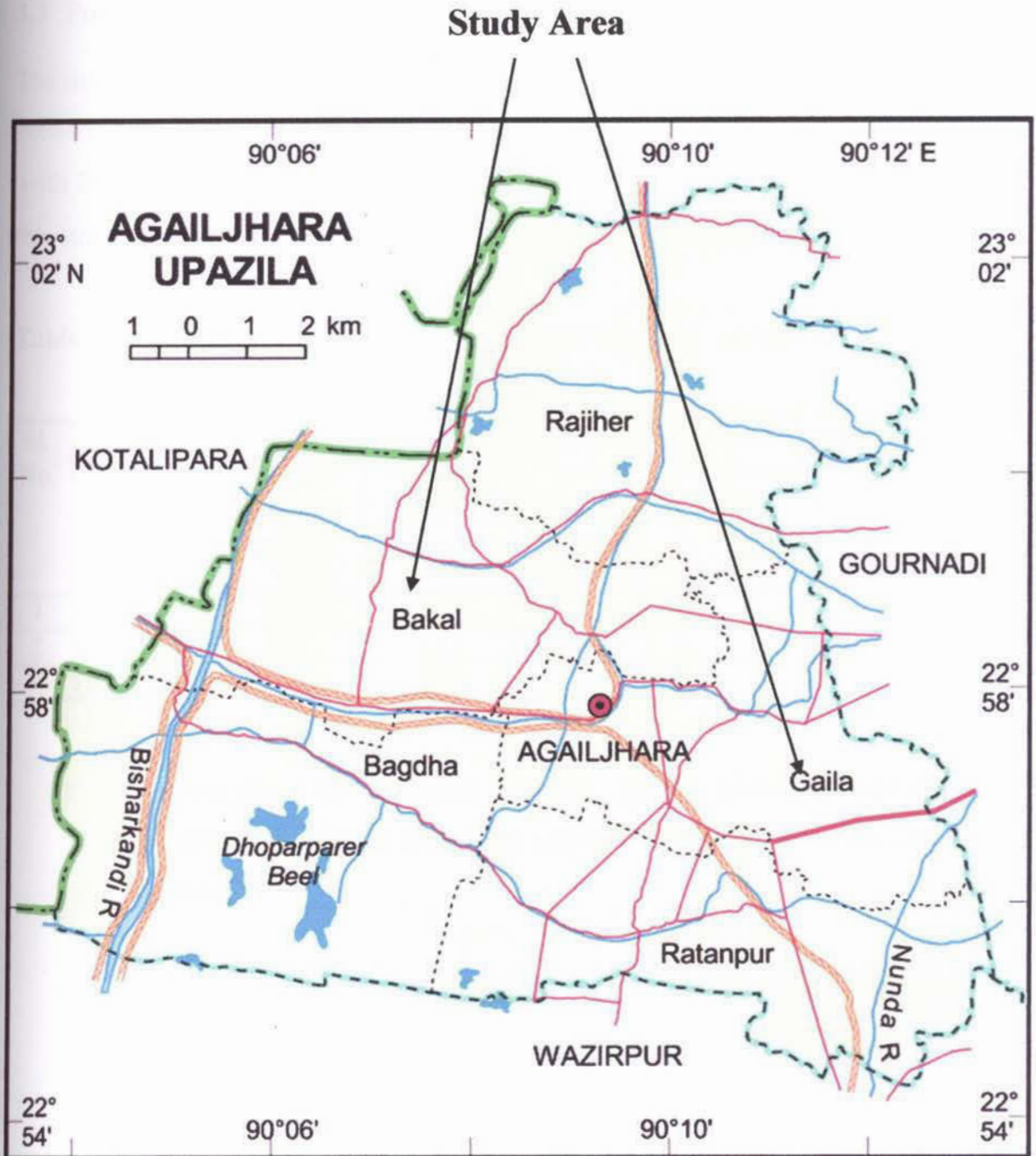


Figure:3.1 A Map of Barisal district showing Agailjhara upazila



**Figure:3.2 A Map of Agailjhara Upazila in Barisal District showing locale of the study area**

### 3.3 Population and sample

The study aimed at the rural youth families having at least one rural youth aged between 15 to 30 years. The two selected villages had 251 families with 294 rural youths. These 294 rural youths constituted the population of this study. The following procedure was followed in selecting population and sample.

**Table 3.1 Distribution of the youth population and sample in two selected villages of Agailjhara Upazila**

Sl. No.	Selected villages	Total no. of rural youth families	Total no of rural youth	Selected rural youth families (40%)	Rural youth from selected families comprising the sample	Reserve sample
1	Bakal	128	153	51	51	6
2	Gaila	123	141	49	49	4
Total		251	294	100	100	10

- i) At first about 40% of rural families (family having at least one rural youth) were selected from each selected village by proportionate random method.
- ii) Then one rural youth was selected from each selected family randomly when a family had more than one youth. Thus 100 youth were selected from 251 families, which constituted the sample for this study.
- iii) A reserve list of the respondents (10 percent of the sample) was prepared for use in case of someone's non-availability during the collection of data.



### **3.4 Selection of Variables**

This sub-section will present the selection of independent and dependent variables.

#### **3.4.1 Selection of independent variables**

Factors affecting the participation and problems of rural youths in IGAs related to agriculture were many. But it was not possible to study all the factors in a single piece of research. Hence, the researcher had to be selective regarding the choice and restrict the numbers of variables. For selection of independent variables, the researcher went through the following steps:

- i) in the beginning, few visits were undertaken in the locale of research to have an understanding of the respondents, their parents and the environment;
- ii) along with the experiences of visits related theses and articles on the rural youth were reviewed;
- iii) formal discussion and advice were taken from the experts;
- iv) exchanges of views were made with the local extension agents, rural youth and their parents; and
- v) finally, the results of these interactions and observation were put forward to the thesis supervisor and co-supervisor to finally select the independent variables

Considering time, money and other resources available and in accordance with the objectives of the study, 9 characteristics were selected as independent variables. The characteristics were age, education, farm size, family size, annual family income, training exposure, daily time use, rural mindedness and credit received.

### **3.4.2 Selection of dependent variables**

The above steps were taken as done in respect of selecting independent variables to select dependent variables of the study. The plight of the rural youth were endless i) most of the youths belong to the poor families having limited land for cultivation ii) although the youth have direct and indirect participation in IGAs with their parents, they are mostly under employed or unemployed and their participation seem to be causal in nature and iii) there has been absence of youth programmes and the rural youth are most often neglected by the government extension agencies and sometimes observed that extension workers who most often do not have requisite qualifications in working with youths nation and by the social leaders as well. Besides there is dearth of clear understanding of the rural youth as to what had been their present situation, what they participated in what they aspired for their willingness problems faced by them in doing agricultural and other useful activities. Considering all these realities of the locale of research and the respondents and in accordance with objectives of the study the researcher finally selected the dependent variable namely : participation of rural youth in selected income generating activities (poultry rearing, vegetable cultivation, nursery of fruit and tree, fish culture and cattle rearing) related to agriculture.

## **3.5 Measurement of the variables**

### **3.5.1 Measurement of the independent variables**

The 9 selected characteristics of the respondent rural youth constituted the independent variables of the study. The independent variables were operationalized as follows:

#### **Age**

On the basis of his/ her statement the age of the respondents was measured in terms of actual years from his/her birth to the time of interview On the basis of his/ her

statement. A score of one (1) was assigned for each years of his/her age (Appendix-A, item no. 1 in the interview schedule).

### **Education**

The education of a respondent was measured in terms of classes passed by his /her in formal education system. A score of one(1) was given for each year of schooling completed. For example, if a respondent didn't know to read and write, his/her education score was zero. While score of 0.5 was given to that respondent who could sign only. If a respondent passed class vii his/her education was considered as 7. If a respondent did not go to school but studied at home and if his/her knowledge status was equivalent to student of class five, then his/her score was 5 (Appendix-A, item no. 2 in the interview schedule).

### **Family size**

Family size of a respondent was calculated in terms of the total number of family members of each respondent. The family members included the respondent and other dependent members. A score of one (1) was given for each members whose age was 18 or more than 18, ½ for between 7 to 17 and 0 for 6 or less than 6 years (Appendix –A, item no. 3 in the interview schedule).

### **Farm size**

Farm size referred to the total area of land on which family carried out farming operations. The farm size was measured by using the following formula:

$$\text{Farm sized} = A_1 + A_2 + \frac{1}{2} (A_3 + A_4 + A_5)$$

Where,

$A_1$  = homestead land

$A_2$  = Own land under own cultivation

$A_3$  = Land given to others on barga

$A_4$  = land taking from others on boga



A<sub>5</sub>= land taking from others on lease

The total area of land thus obtained in local unit, transferred to hectare, where 1 score was assigned for each hectare (Appendix –A, item no. 4 in the interview schedule).

### **Annual family income**

Annual family income of a respondent was measured in taka on the basis of total yearly earning of the respondents and members of his family. The method 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 price 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 himself/herself or other from different sources (like service, business, labour) were also included in calculating the income. Yearly earning 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 (Appendix-A, item no. 5 in the interview schedule).

### **Training exposure**

Training exposure was measured by the total number of days of a respondent participated different training programmes from different organizations. A score of one (1) was assigned for each day of training attended (Appendix-A, item no. 6 in the interview schedule).

### **Daily time use**

For the purpose of IGAs the daily time expensed by a rural youth was measured by a 5 point scale indicating the extent of use of time in respect of different activities in a day. Each respondent youth indicates the extent of time use by

checking only one of the five responses. The responses were qualified as follows: > 6 hours-4, >4-6 hours -3, >2-4 hours -2, >2 hours-1 and not at all -0. The scores obtained by a respondent youth for all the 5 items were added together to determine his/her time use in different activities. The time use scores of the respondent youth could be from 0 to 20 where 0 indicated no time use and 20 indicated >6 hours time use.

### **Rural mindedness**

Rural mindedness deals with the belief and inclination towards rural and agricultural code of rural youth. It was measured by computing score with the help of 9 statements, 5 positive and 4 negative statements ( Appendix-A, item no 8 in the interview schedule). A 4-point modified likert- type scale was used to assign scores in the following way:

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

Rural mindedness score of rural youth could range 0 to 27.

### **Credit received**

Credit received of a respondent youth was measured in terms of the amount of money received as loan. It was expressed in taka. A score of one (1) was given for each thousand taka (Appendix –A, item no. 9 in the interview schedule).

### **3.5.2 Measurement of the dependent variables**

Participation of rural youth in selected agricultural IGAs was the dependent variable of the study. The rural youths were asked to give their opinion on 5 items

related to agricultural IGAs. The score was assigned to each of the responses of youths as 4 for regularly, 3 for frequently , 2 for occasional,1 for rare and 0 for never. By adding the assigned scores of 5 items of a respondent together, the opinion of the rural youth in IGAs related to agriculture was obtained. Thus, the participation of income generating activities score of a respondent could range from 0 to 20.

For better understanding of comparative participation of the rural youth on selected 5 items of IGAs related to agriculture , a Participation Index (PI) was computed using the following formula :

$$\text{Participation Index (PI)} = \text{Prp} \times 4 + \text{Pqr} \times 3 + \text{Pop} \times 2 + \text{Pvl} \times 1 + \text{Pnp} \times 0$$

Where,

- Prp = Percentage of rural youth with regular participation
- Pqr = Percentage of rural youth with quite regular participation
- Pop = Percentage of rural youth with occasional participation
- Pvl = Percentage of rural youth with very low participation
- Pnp = Percentage of rural youth with no participation

### **3.6 Measurement of Problem Confrontation Index (PCI)**

To measure problem confrontation of rural youth in income generating activities related to agriculture, a 3- point rating scale was developed and designed with 4 kinds of responses namely high, medium, low and not at all problem confrontation and, the corresponding scores assigned for each kind of response were 3, 2, 1 and 0 respectively. Score of problem of a respondent in 10 items could range from 0 to 30 (Appendix-A, item no. 11 in the interview schedule). For clear understanding of the problem confrontation of the rural youth in selected items, frequency distribution and rank order were done by developing problem confrontation Index (PCI) by using the following formula:



Problem Confrontation Index (PCI) =  $Chpc \times 3 + Cmidc \times 2 + Clpc \times 1 + Cnpc \times 0$

Where,

$Chpc$  = Percentage of rural youth with high problem confrontation

$Cmidc$  = Percentage of rural youth with medium problem confrontation

$Clpc$  = Percentage of rural youth with low problem confrontation

$Cnpc$  = Percentage of rural youth with no problem confrontation

### **3.7 Hypothesis**

The following null hypothesis was formulated to explore the relationships of the selected characteristics of the rural youths with their participation in IGAs related to agriculture.

“There is no relationship between each of thirteen selected characteristics of the rural youths and their participation in IGAs related to agriculture.

### **3.8 Data collecting instrument**

An interview schedule was used in collecting data to determine the participation of rural youth in selected income generating activities related to agriculture and their problem confrontation in income generating activities and to determine the nine selected characteristics of the 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 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 (Appendix-A).

### **3.9 Data Collection**

From the selected samples the researcher collected data through individual interviewing. The researcher made all possible efforts to establish desired rapport with the respondents, so that they could feel free to respond to the questions contained in the schedule. During the interview, the researcher explained the purpose of collecting data to the respondent. The researcher did not face any difficulty to establish rapport in collecting data. Good cooperation was received from almost all of the respondents during interview. The pretest was done between 21 September to 22 October 2007.

### **3.10 Data processing and Analysis**

The collected data were compiled, tabulated, and analyzed in accordance with the objectives of the study. The SPSS computer programmer was used to perform the data analysis. Descriptive statistics such as number, percent, mean, standard deviation, range and rank order were used to describe data. Pearson's Product Moment Correlation Co-efficient was used in order to explore the relationships between the concerned variables. Five percent (0.05) level of probability was used as the basis for rejection of any null hypothesis.

## CHAPTER 4

### RESULTS AND DISCUSSION

The purpose of this chapter is to describe the findings of the present study. The first section deals with the selected characteristics of the rural youths, while the second section deals with the extent of participation of rural youths in selected agricultural IGAs. Relationship between the selected characteristics of the rural youths and their participation in agricultural IGAS has been discussed in the third section. The fourth section deals with the problems faced by the rural youths in participating selected agricultural IGAS.

#### 4.1 Selected characteristic of the Rural youth

A summary of the analyzed results for the selected characteristic of the Rural youth (independent variables) for this study are shown in Table 4.1

**Table 4.1 Rural Youth's personal characteristics profile**

Sl. No.	Characteristics	Measuring unit	Possible range	Observed range	Mean	Standard deviation
1	Age	Actual years	15-30	16-30	25.2	3.83
2	Education	Years of schooling	Unknown	0-14	4.73	4.31
3	Family size	Number of members	Unknown	2-11	5.27	2.02
4	Farm size	Hectare	Unknown	.06-4.75	0.90	0.69
5	Annual Family income	'000'Taka	Unknown	45.00-300.21	95.45	40.82
6	Training Exposure	Actual Days	Unknown	0-36	5.15	8.13
7	Daily time use	Actual hours	Unknown	2-12	6.86	2.5
8	Rural mindedness	Scores	0-27	4-26	16.77	4.77
9	Credit received	'000'Taka	Unknown	0-27	6.58	7.15



#### 4.1.1 Age

The observed age scores of the rural youth ranged from 16 to 30 having an average of 25.2 with a standard deviation of 3.83. On the basis of the age scores of the rural youth, they were classified into three categories: “younger youth” (16-20 years), “middle youth” (21-25) years and “elder youth” (26-30 years). The distribution of the rural youth according to their age is shown in Table 4.2.

**Table 4.2 Distribution of the rural youth according to their age**

Categories	Rural youth		Mean	Standard Deviation
	Number	Percent		
Younger youth (16-20) years)	16	16	25.2	3.83
Middle youth (21-25 years)	28	28		
Elder youth (26-30 years)	56	56		
Total	100	100		

Findings indicated that a large proportion ( 56%) of the rural youth were elder youth aged compared to 16 and 18 percent being younger youth and middle youth respectively. It is expected that youth aged respondents are more interested in participation in agricultural income generating activities. The extension agencies should consider this age category among the rural youth and involve them for conducting effective agricultural extension programmes.

#### 4.1.2 Level of Education

The observed level of education scores of the rural youth ranged from 0 to 15 having an average of 4.73 and the standard deviation was 4.31. On the basis of their level of education scores, the rural youths were classified into four categories, namely “illiterate” (0), “can sign only” (.5), “medium educated” (1-10) and higher educated above 10). The distribution of the rural youth according to their level of education is shown in Table 4.3.

**Table 4.3 Distribution of the rural youth according to level of education**

Categories	Rural youth		Mean	Standard Deviation
	Number	Percent		
Illiterate (0)	19	19	4.73	4.31
Can sign only (0.5)	20	20		
Medium educated (1-10)	54	54		
Higher educated (Above 10)	7	7		
Total	100	100		

It was found that the majority (54%) of the rural youth had medium education compared to 19 percent, 20 percent and 7 percent having illiterate, can sign only and higher education respectively. It is assumed that educated youth are more progressive and innovative than those of illiterate with respect to participation in IGAs. If the level of education of the rural youth is increased, they may become more interested to participation in agricultural IGAs. So, necessary efforts should be made by the extension services to increase the level of education of the rural youth of the study area.

#### **4.1.3 Family size**

The family size scores of the rural youth ranged from 2 to 11. The average and standard deviation of the family size scores was 5.27 and 2.02 respectively. On the basis of their family size scores, the youths were classified into the following three categories: “small” (2-4), “medium” (5-8) and “large” (9 and above). Table 4.4 Contains the distributing of the rural youth according to their family size.

**Table : 4.4 Distribution of Rural Youth according to family size**

Categories	Rural youth		Mean	Standard Deviation
	Number	Percent		
Small	42	42	5.27	2.02
Medium (5-8)	51	51		
Large ( 9 and above)	7	7		
Total	100	100		

Findings reveal that 51 percent of the rural youth had medium family compared to 42 and 7 percent having small and large family. Based on the above data it can be concluded that the average family size of Bangladesh is 5.27 which is lower than national family size which is equivalent to 5.60 (BBS, 2007).

#### 4.1.4 Farm size

The observed farm size scores of the rural youth varied from .06 to 4.75 hectare. The average farm size was 0.9 hectares and the standard deviation was 0.69. The rural youth were classified into the following three categories based on their farm size scores: “ small farm size” (Up to 1), “ medium farm size “ (1.01-2), and “ large farm size” (2.01 and above).

The distribution of the rural youth according to their farm size is shown in Table 4.5.

**Table 4.5 Distribution of Rural youth according to farm size**

Categories	Rural youth		Mean	Standard Deviation
	Number	Percent		
Small farm size (up to 1ha)	78	78	0.90	0.69
Medium farm size (1.01-2 ha)	17	17		
Large farm size (2.01 ha and above )	5	5		
Total	100	100		



It was found that 78% of the rural youth possessed small farm size compared to 17 percent 4 percent of them having small and medium farm size respectively. The average farm size of the rural youth was 0.90 hectare which is higher than the national average farm size, which is equivalent to 0.8 hectare (BBS, 2005). This indicates that the farm size levels of the rural youth in the study area are lower than a typical agricultural farming community of Bangladesh. Therefore, it can be concluded that most of the rural youth were unable to participate in different agricultural income generating activities due to lack of sufficient agricultural land.

#### 4.1.5 Annual Family income

The observed annual family income of the rural youth ranged from 45.00-300.21 thousand taka having an average of 95.45 with a standard deviation of 40.82. Based on their family annual income scores, the rural youth were classified into three categories, “ low annual income” (up to 60 thousand Tk.) “ medium annual income” (60-100 thousand Tk.) and “high annual income” (above 100 thousand Tk). The distribution of the rural youth according to their family income is shown in Table 4.9.

**Table 4.6 Distribution of rural youth according to annual family income**

Categories	Rural youth		Mean	Standard Deviation
	Number	Percent		
Low annual income ( up to 60 Th. Tk.)	19	19	95.45	40.82
Medium annual income (60-100 Th. Tk.)	50	50		
High annual income ( above 100 Th. Tk.)	31	31		
Total	100	100		

Findings reveal that the highest portion (50 percent ) of the rural youth had medium annual family income while 18 percent and 30 percent of them had low and high annual family income respectively. That means 69 percent of the rural youth had low to medium annual family income. The average income of the rural youth of the study area is higher than the per capita income of the country which is equivalent to US Dollar 599 (BBS, 2007). This might be due to the fact the rural youth of the study area were not only engaged in agricultural practices but also they earn money from other earning family members also contribute to increase their family income.

#### 4.1.6 Training exposure

The observed training received scores of the rural youth ranged from 0-36 having an average 5.15 and a standard deviation of 8.13. On the basis of their training received scores, the rural youth were classified into 4 categories: `` no training exposure`` (0), `` low training exposure `` (1-6) `` medium training exposure`` (7-15) and `` high training exposure`` (16 and above). The distribution of the rural youth according to their training exposure scores is shown in Table 4.7.

**Table 4. 7 Distribution of rural youth according to training exposure**

Categories	Rural youth		Mean	Standard Deviation
	Number	Percent		
No training exposure (0)	48	48	5.15	8.13
Low training exposure (1-6)	27	27		
Medium training exposure (7-15)	14	14		
High training exposure 16 and above	11	11		
Total	100	100		

Findings reveal that 48 percent of the rural youth had no training exposure compared to 27 percent, 14percent, and 11 percent having low, medium and high training exposure respectively. Training experience can play a vital role for rural



youth towards participating in IGAs. It is normally found that training experience of the youth in rural community is very low or nil. Most of the rural youth do not go outside. As a result inspiration for change do not develop much. While this scanty scope for rural youth participate in development activities which are normally improved through need-based training.

#### 4.1.7 Daily time Use

Time use scores of the respondents ranged from 2 to 12 having an average 6.86 and a standard deviation of 2.5. On the basis of their daily time use scores, the rural youths were classified into 3 categories: "low" (up to 4), "medium" (5-8) and "high" (>8). The distribution of the rural youth according to their daily time use scores is shown in Table 4.8.

**Table 4.8 Distribution of rural youth according to their daily time use**

Categories	Rural youth		Mean	Standard deviation
	Number	Percent		
Low (Up to 4)	20	20	6.86	2.5
Medium (5-8)	56	56		
High (>8)	24	24		
Total	100	100		

Findings reveal that 56 percent of the rural youth fell in medium time use category. The remaining 20 percent and 24 percent were in low and high time use category respectively. More participation is necessary for increasing IGAs. Extension agents should inspire the rural youth to participate more.

#### 4.1.8 Rural mindedness

Rural mindedness of the respondents ranged from 4 to 26 against the possible range 0 to 27 having an average of 16.77 with a standard deviation of 4.77. Based on the rural youth mindedness scores were classified into three categories: "low rural mindedness" (up to 9), "medium rural mindedness" (10-18) and "high rural



mindedness" (above 18). The distribution of the rural youth according to their rural mindedness scores is shown in Table 4.9.

**Table 4.9 Distribution of Rural youth according to rural mindedness**

Categories	Rural youth		Mean	Standard Deviation
	Number	Percent		
Low mindedness ( up to 9)	6	6	16.77	4.77
Medium mindedness (10-18)	53	53		
High mindedness (above 18)	41	41		
Total	100	100		

Findings show that majority (53 percent) of the rural youth had medium rural mindedness compared to 6 percent and 41 percent having low and high mindedness respectively. It is assumed that the rural youth must have to be residing mostly in their village to improve their IGAs.

#### 4.1.9 Credit received

Credit received of the respondents ranged from Tk. 0 to Tk. 27 thousand with an average and standard deviation of 6.58 and 7.15 respectively. Based on the credit availability, the youths were classified into three categories : no credit availability" (0)" low credit availability " (1-10), " medium credit availability (above 10). The distribution of the rural youth according to their credit availability is shown in Table 4.10.

**Table 4.10 Distribution of rural youth according to credit received**

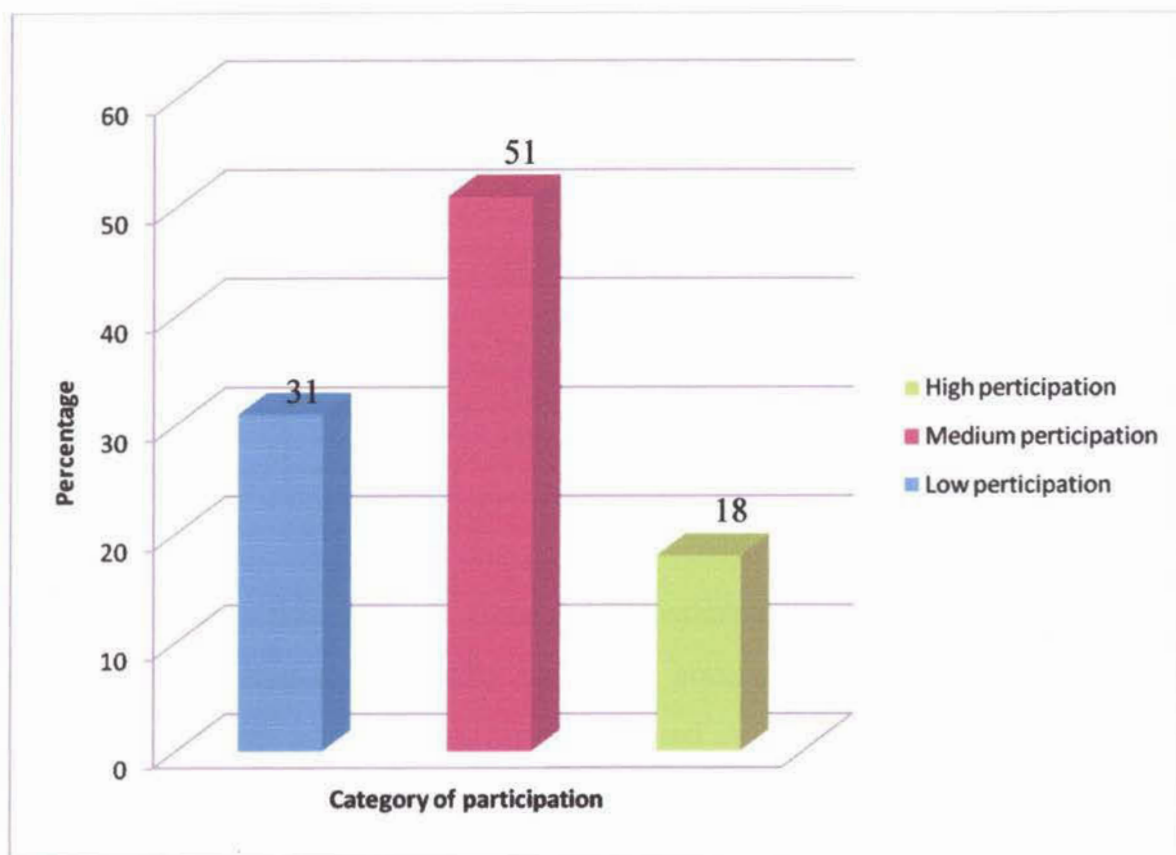
Categories	Rural youth		Mean	Standard Deviation
	Number	Percent		
No credit availability (0)	42	42	6.58	7.15
Low credit availability (1-10)	32	32		
High credit availability (above 10)	26	26		
Total	100	100		

Findings reveal that the highest portion (42 percent) of the rural youth had no credit availability while 32 percent and 26 percent had low and high credit availability, respectively. It should be mentioned here that few youths are supported by high credit availability. So, necessary efforts should be made by the extension services to increase the availability of credit of the rural youth of the study area.

#### **4.2.1 Participation of the Rural youth in selected agricultural income generating activities**

An interval scale was used to measure the participation of rural youth in agricultural income generating activating (IGAs). Composite participations are described below:

The observed participation score of rural youth in selected agricultural income generating activates (IGAs) ranged from 3 to 18 having an average of 9.12 with a standard deviation 3.56 against the possible range of 0 to 20. On the basis of their participation scores, the rural youths were classified into three categories: “ low participation” (1-7) “ medium participation” (8-13) and “ high participation” (14-20). The highest proportion (51 percent) of the rural youth fell in the “medium participation” category and only 18 percent fell in the “ high participation” category. The distribution of the rural youth according to their participation in IGAs is shown in figure 4.1



**Figure 4.1 Bar graph showing categories of participation**

The findings indicate that a large proportion (51%) of the rural youth had medium participation in agricultural IGAs compared to 31 percent and 18 percent having low and high participation in agricultural IGAs respectively. This scenario is not satisfactory and should overcome immediately by taking necessary steps by NGOs and GOs.

#### **4.2.2 Participation Index (PI)**

Participation Index (PI) of rural youth on 5 items of agricultural IGAs ranged from 137 to 281 against possible range of 0 to 400. PI of two agricultural IGAs were above 200 and 3 below 200. According to 5 activities poultry rearing (281) came first and nursery of fruit tree (137) was in last position.



**Table 4.11 Participation Index (PI) of the selected 5 items of agricultural IGAs**

Sl. No.	Items of participation	Rural youth (N=100)					Index No.	Rank order
		Regular %	Quite Regular %	Occasional %	Very low %	Not at all %		
1.	Poultry rearing	42	26	14	7	11	281	1
2.	Vegetable cultivation	35	22	24	10	9	264	2
3.	Cattle rearing	15	24	18	20	23	188	3
4.	Fish culture	13	15	30	22	20	179	4
5.	Nursery of fruit and tree	8	11	17	38	26	137	5

There would be a possibility in future youth extension programmes that it would become poultry bias and partially vegetable become of the reality of the rural environment. Large scale poultry farming started in our country in 1980s and has drawn an investment of 1.457 billion dollar . Since its inception , five million people directly and indirectly related to this farming are proof that it is a gigantic industrial sector . There are a good number of vegetable crops that can be grown with low cost and labour and can bring yield in quicker time to get cash. The extension agencies should carefully consider the contents of youth extension programmes where poultry and vegetable rearing might be the major activities for income generation.

#### **4.3 Relationship between the selected characteristics of the Rural youth and their participation in selected Agricultural Income Generating Activities (IGAs)**

This section deals with the relationship between nine selected characteristics (independent variables of the rural youth viz. age, education, family size, farm size, annual family income, training exposure, daily time use, rural mindedness, credit received and dependent variable i e. participation of rural youth in selected income generating activities related to agriculture.

Pearson's Product moment co-efficient of Correlation (r) has been used to test the hypothesis concerning the relationship between two variables. Five percent and one percent level of probability were used as the basis for rejection of a hypothesis. The summary of the results of the co-efficient of correlation indicating the relationships between the selected characteristics of the respondents and their participation in agricultural IGAs is shown in Table 4.12.

**Table 4.12 Correlation co-efficient between the selected variables**

Independent Variables	Computed Value 'r'	Dependent Variable	Table value of 'r' at 98 Degrees of Freedom	
			5%	1%
Age	-0.035 <sup>NS</sup>	Participation in selected agricultural IGAs	0.196	0.256
Education	0.222*			
Family size	0.041 <sup>NS</sup>			
Farm size	0.213*			
Annual family income	0.237*			
Training exposure	0.360**			
Daily time use	0.343**			
Rural mindedness	-0.025 <sup>NS</sup>			
Credit received	0.031 <sup>NS</sup>			

<sup>NS</sup>=Non significant

\* = Significant at 0.05 level of probability

\*\*= significant at 0.01 level of probability



#### **4.3.1 Relationship between age and participation of the rural youth in selected IGAs related to agriculture**

The correlation coefficient between age of the respondents and their participation in selected agricultural IGAs was -0.035 as shown in table 4.11. Based on the observed 'r' value the relationship between age of the rural youth and the participation in selected agricultural IGAs were not significant and followed a negative trend. Hence, null hypothesis in this respect could not be rejected.

Youths of the study area now only concentrate on agricultural production. Extension agents also influence them. For their own need they participate satisfactorily. Hence, the age of the rural youth has no influence in their participation in agricultural activities.

#### **4.3.2 Relationship between education and participation of the rural youth in selected IGAs related to agriculture**

The correlation coefficient between education of the respondents and their participation in IGAs was 0.222 as shown in table 4.11. Based on the observed 'r' value, the relationship between education of the rural youth and the participation in selected agricultural IGAs had a positive correlation. Hence, null hypothesis in this respect was rejected.

Most of the variables are related to the performance of an individual his outlook attitude towards life, understanding of men nature of society and his duties and responsibilities in worldly or professional affairs, education is the most important among the variables. In recent years, the adequacy of educational policies and programmes as the main vehicle of national youth development has been called into question, Education formal or non-formal has been a key factor for all individuals. Hence, better education yields better participation. Youth extension programmes should be prepared to arrange non-formal education to the rural youths in the form



of training, project activities and demonstration of improved agricultural technologies.

#### **4.3.3 Relationship between family size and participation of the rural youth in selected IGAs related to agriculture**

The correlation coefficient between family size of the respondents and their participation in IGAs was 0.041 as shown in table 4.11. Based on the observed 'r' value the relationship between family size of the rural youth and the participation in IGAs were insignificant and followed a positive trend. Hence, the null hypothesis was accepted i.e., there was no relationship between family size and the participation in selected agricultural IGAs.

Begum (1998) showed that family of the rural women had no significant relationship with their poverty alleviation owing to participation in ASA activities. Naher (2000) reported that there was no relationship between family size and participation of women in homestead vegetable cultivation poultry raising and goat rearing. Based on the above findings it may be concluded that family size did not play any role of participation in IGAs.

#### **4.3.4 Relationship between farm size and participation of the rural youth in selected IGAs related to agriculture**

The correlation coefficient between farm size of the respondents and their participation in selected agricultural IGAs was 0.213 as shown in table 4.11 Based on the observed 'r' value the relationship between farm size of the rural youth and the participation in IGAs were significant. Hence the null hypothesis was rejected.

Farm size is an important variable for extending agricultural activities or adopting modern technology. The parents of rural youth who possess some land area for cultivation of crops or rearing cattle or poultry, their youth would naturally have

more participation comparing to others. In the future rural youth extension programmes this factor must get priority.

#### **4.3.5 Relationship between annual family income and participation of the rural youth in selected IGAs related to agriculture**

The correlation coefficient between annual income of the respondents and their participation in selected agricultural IGAs was 0.237 as shown in table 4.11. Based on the observed 'r' value the relationship between family income of the rural youth and the participation in selected agricultural IGAs was significant and followed a positive trend. Hence, the null hypothesis was rejected i.e., there was significant relationship between family income of the rural youth and their participation in IGAs.

Families with higher income had more scope to initiate or attend in a programme. Though having a great interest youth with lower income can't participate in IGAs such as in poultry rearing , nursery of fruit and tree, cattle rearing etc.

#### **4.3.6 Relationship between training exposure and participation of the rural youth in selected IGAs related to agriculture**

The correlation coefficient between training exposure of the respondents and their participation in selected agricultural IGAs was 0.360 as shown in table 4.11. Training exposure of the rural youth had a strong positive correlation with their participation in selected agricultural IGAs. Hence, Null hypothesis in this respect could be rejected i.e. there was significant relationship between training exposure and the participation in selected agricultural IGAs.

In the recent years there has been a world of change in the knowledge management system. Training teaches modern technology & practical knowledge to do a job in better way.

#### **4.3.7 Relationship between daily time use and participation of the rural youth in selected IGAs related to agriculture**

The correlation coefficient between daily time use of the respondents and their participation in selected agricultural IGAs was 0.343 as shown in table 4.11. Based on the observed 'r' value the relationship between daily time use of the rural youth and the participation in selected IGAs were strong significant and followed a positive trend. Hence the null hypothesis was rejected i.e. there was strong significant relationship between the daily time use and the participation in selected agricultural IGAs.

This indicates that if the rural youths increase their daily time use, participation also would be increased. During paddy harvesting young men and women work 12 hours in a day.

#### **4.3.8 Relationship between rural mindedness and participation of the rural youth in selected IGAs related to agriculture**

The correlation coefficient between rural mindedness of the respondents and their participation in selected agricultural IGAs was -0.025 as shown in table 4.11. Based on the observed 'r' value the relationship between rural mindedness of the rural youth and the participation in selected agricultural IGAs was non significant and followed a negative trend. Hence, the null hypothesis in this respect could not be rejected.

The migration of rural youth to the cities introduces problems because cities are not prepared to provide employment, housing, education and other services. On the other hand rural minded youth can face problems, as they are aware of it and can solve some problems as they have a rural mindedness.



#### **4.3.9 Relationship between credit received and participation of the rural youth in selected IGAs related to agriculture**

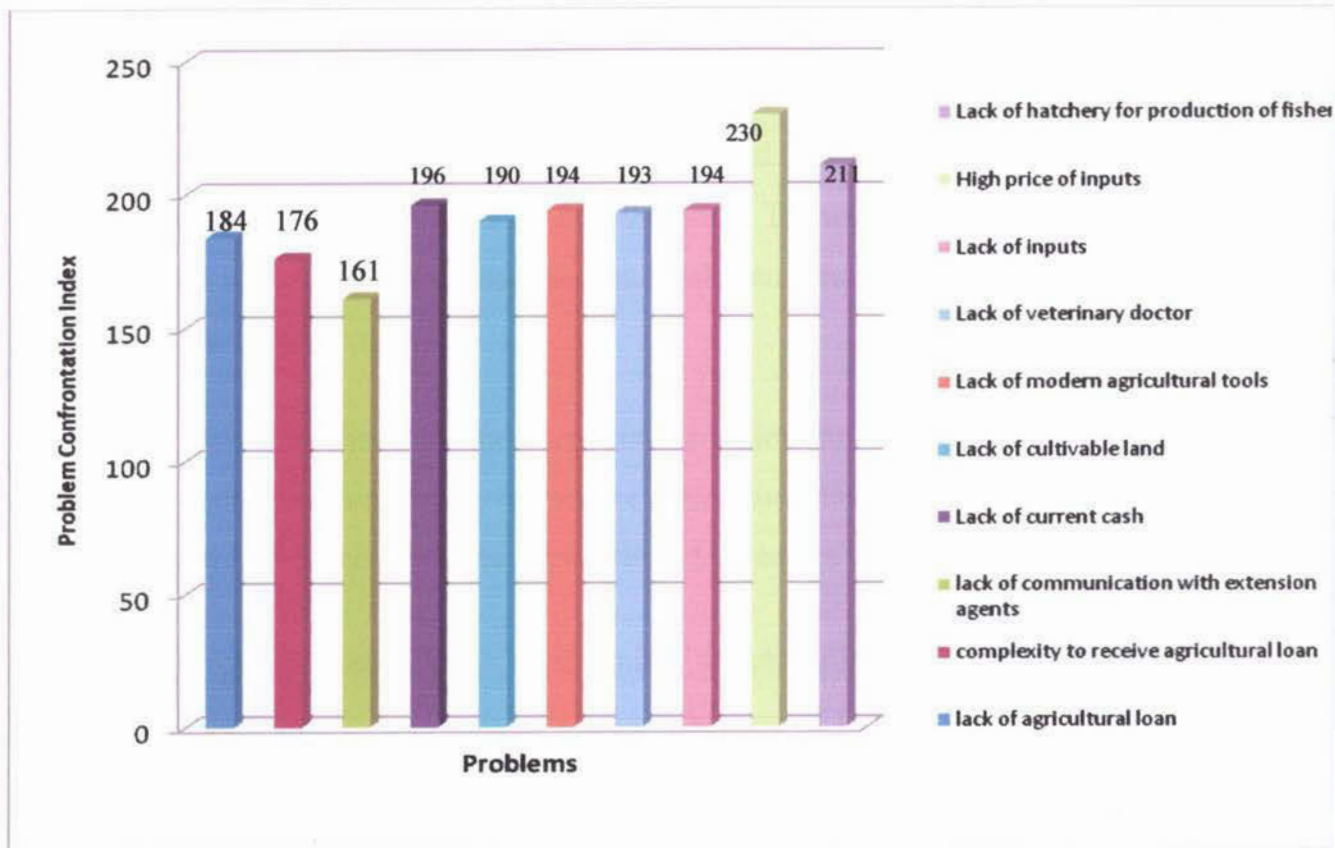
The correlation coefficient between credit received of the respondents and their participation in selected agricultural IGAs was 0.031 as shown in table 4.11. Based on the observed 'r' value the relationship between credit received of the rural youth and the participation in selected agricultural IGAs was non significant and followed a positive trend. Hence the null hypothesis in this respect could not be rejected.

Basak (1997) in his study showed that the credit availability of the rural women under BRAC had no significant relationship in BRAC rural development activities

The finding indicate that the participation of the rural youth do not increased with the increase of credit availability.

#### **4.4 Problem Confrontation Index (PCI)**

The Problem Confrontation Index (PCI) scores were calculated to find out the major problems confronted by the rural youths in participating selected IGAs related to agriculture. Problem Confrontation Index (PCI) of rural youths on 10 items ranged from 161 to 230 against possible range of 0 to 300. The severity of Problem Confrontation of the respondents is shown in Figure 4.2



**Figure 4.1 Bar graph showing categories of problem confrontation of the respondents**

From the above bar graph it was observed that –

1. The problem faced by the rural youths which ranked first on the basis of PCI score was high price of inputs with a PCI of 230. It was a serious problem for the rural youths. Therefore to solve this problem it may be suggested that the poor rural youths should be given subsidy, specially in agriculture.
2. The problem which ranked second on the basis of PCI score was lack of current cash with a PCI of 211. Therefore to solve this problem it may be suggested that the poor rural youths should be provided current cash.
3. The problem faced by the rural youths which ranked third on the basis of PCI score was lack of cultivable land with a PCI of 196. Majority of the

rural youth had a little amount of land . Therefore to solve this problem they should follow intensive cultivation practices.

4. The problem faced by the rural youths which ranked fourth on the basis of PCI score was lack of agricultural loan and lack of communication with extension agents with a PCI of 194 both. To solve these problems they should be provided necessary agricultural loan and extension agents should communicate properly.
5. The problems faced by the rural youths which ranked fifth on the basis of PCI score was complexity to receive agricultural loan with a PCI of 193. To solve this problem credit facilities should be easier.
6. The problem faced by the rural youths which ranked sixth on the basis of PCI score was lack of hatchery for production of fishery with a PCI of 190. To solve this problem they should be provided necessary hatchery facilities.
7. The problem faced by the rural youths which ranked seventh on the basis of PCI score was lack of veterinary doctor for production of fishery with a PCI of 184. To solve this problem availability of veterinary doctor should be increased.
8. The problem faced by the rural youths which ranked eighth on the basis of PCI score was lack of modern agricultural tools with a PCI of 176. To solve this problem modern agricultural tools should be provided.
9. The problem faced by the rural youths which ranked ninth on the basis of PCI score was lack of inputs with a PCI of 161. To solve this problem modern inputs should be provided.



## CHAPTER 5

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary of findings

##### 5.1.1 Income generating activities

The following selected 5 items of IGAs related to agriculture were identified in which the rural youth participated in the working area.

1. Poultry rearing
2. Vegetable cultivation
3. Nursery of fruit and tree
4. Fish culture
5. Cattle rearing

##### 5.1.2 Participation of rural youth in selected agricultural IGAs:

Participation of rural youth in selected agricultural IGAs was the main focus of the study. The computed participation in IGAs scores of the respondents ranged from 0-18 against the possible range 0 to 20 scores. The mean and standard deviation were 9.12 and 3.56 respectively. 51 percent of the respondents belonged to the medium category while 31 percent and 18 percent of them belonged to low and high category respectively. Poultry rearing vegetable cultivation, fish culture, nursery of fruit and tree were the five items of participation in IGAs in rank order.

##### 5.1.3 Selected characteristics of the rural youth

The average age of the respondents was 25.2 and 56 percent of the respondents were elder youth aged. The average education was 4.73 and 54 percent of them were medium educated. Average family size of the women were 5.27 and 51 percent of them fell in medium family size category. The farmers had 0.9 hectare

of land on the average and 78percent of them had belonged to small farm. The average annual family income was 95.45 thousand and 50 percent of the respondents were in medium family income category.

On an average they received training for only 5.15 days and 48 percent of them did not received any training. The average daily time use was 6.86 and most of them (56percent) were medium category. The average mindedness of the respondents was 16.77 and 53 percent of them were medium mindedness. They received credit 6.58 thousand on an average and 42percent of them were in no credit availability category.

#### **5.1.4 Relationship between selected characteristics of the rural youth and their participation in selected agricultural IGAs.**

Age, family size, rural mindedness and credit received of the rural youth had no significant relationship with their participation in selected agricultural IGAs. On the other hand relationship among education, farm size, annual family income, training exposure and daily time use, with their participation in selected agricultural IGAs were positively related at 1 percent and 5 percent level of probability.

#### **5.1.5 Problem confrontation Index (PCI)**

The rural youth expressed some problems as barriers for their effective participation in selected agricultural income generating activities. As many as 10 problems were mentioned by the rural youth of the study area. The problems were ranked in a decreasing order of problem confrontation Index (PCI) which ranged from 161-230.

The problems in descending order of Problem Confrontation Index (PCI) were as follows :

1. High price of inputs
2. Lack of current cash
3. Lack of cultivable land
4. Lack of agricultural loan

5. Lack of communication with extension agents
6. Complexity to receive agricultural loan
7. Lack of hatchery for production of fishery
8. Lack of veterinary doctor
9. Lack of modern agricultural tools
10. Lack of inputs

## **5.2 Conclusions**

On the basis of the findings of the study, the logical interpretation of their meaning and other relevant facts, the following conclusions have been drawn:

1. Generally most of the rural youth live within massive poverty, low income, low education, small farm size and without significant income earning activities. In this situation they have become a heavy burden to the parents and for the society. It is therefore urgent need to organize youth extension programmes by the government extension agencies. Constant changes in government often lead to significant disruptions in continuity of programming. For political reasons many new governments often want to implement something new even if the old programmes are well. This leads to confusion and wasted resources. The need is to build on successes not just to keep starting again.
2. Based on the findings it may be concluded that special attention need to be given on any particular age group. But as larger proportion of the rural youth were middle and elder youth hence, it may be necessary to give some importance to these categories.
3. The highest proportion of the rural youth had medium family size. Total family size had no significant relationship with their participation in



selected agricultural IGAs. Hence, it is concluded that to help in the IGAs family size of the rural youth is not an important factor.

4. Educated youth were more eager in implementing their IGAs properly. The literacy programme could be very effective to different other development activities.
5. Farm size, annual income and training exposure of the respondents had impact on increasing the participation in selected agricultural IGAs. That means availability of these characteristics may encourage youths towards participation in IGAs for their improvement.
6. Fifty six percent of the rural youths had medium time use. There was a significant relationship of daily time use of the rural youth with their participation in selected agricultural IGAs. The findings indicate that since most of the rural youth were in medium time use category, it may be necessary to work with a large proportion of the rural youth having high time use in an effort to help in IGAs.
7. In future rural youth programmes and activities highly demanded and marketable poultry rearing with minimum land, labour and capital need to be more emphasized for the rural youth. The livestock and vegetable cultivation activities considering duration cash return and parents, economic situation should be included.

### 5.3 RECOMMENDATIONS

1. The rural youth is a potential group, but they are unemployed & live within massive poverty. It is hence recommended that the Department of Livestock Services, the Department of Fisheries the Department of Forestry, the Department of Youth Development and others now working in the rural areas should urgently undertake comprehensive extension programme for the Rural youth to : i) undertake various agricultural activities that yield per capita income for their families; ii) arrange small credit and short term loan to the participant youth and their parents to encourage them to undertake viable projects in respect of crop, livestock, fisheries, forestry and others which would return cash in a short time and iii) make them useful member of the family and the nation.
2. It is recommended that the interests of youth need to be determined designing programmes, since they vary significantly from place to place and among different age groups of young people.
3. Grass roots start-up of youth clubs and groups may be an ideal, but in actual practice there is usually a need for outside stimulation which should be followed by gradually increasing participation of young people as they gain confidence and develop leadership abilities.
4. Youths in the rural social system are a deprived and neglected group. It is recommended that recreation and sports are a basic need of youth and can be used as a starting point to initiate youth activities.
5. Youth can be encouraged to take part in decision making, but this will not necessarily just happen by itself. Young people need to be actively encouraged and allowed to practice leadership skills in safe, non-threatening settings. They need to develop and practice communication skills, such as speaking before groups of people.

6. Often autocratic leadership behavior is a restricting factor in active youth participation in the design and implementation of programmes. It is recommended that there is a need to work with adult and youth leaders to help them develop the skills that allow full participation of young people.
7. Youth should also not be considered in isolation when developing youth programmes. Parents and other community members will also have an influence on the programmes and their support and active involvement is needed if activities are to be successful.

#### **5.4 Recommendations for further study:**

1. The present study was carried out in a small area of a particular district similar studies may be conducted in other parts of the country to get a clear picture of the whole country which will be helpful for effective policy formulation.
2. The present study measured the participation of the rural youth in selected agricultural IGAs. But it is necessary to understand participation and problem confrontation of rural youth in other different aspects like the non-agricultural activities, their education, health care and other related matters. Hence studies should be undertaken or an understanding of the rural youth's participation in different aspects of their life.
3. This study investigated the relationship between the 9 important characteristics of the rural youth & their participation in selected agricultural IGAs. But to have a deep understanding of rural youth, other related variables need to be examined to develop and organize sound extension programmes. Hence, it is recommended that further study should be conducted involving other characteristics of the rural youth.



4. Rural youth families, different socio-economic groups such as fisherman, carpenter, mason, blacksmith, farm and home makers and such economic groups might have different types to vocational interest. Extension studies should be undertaken to understand facts and situations for developing youth programmes for a specific socio-economic category.

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## APPENDIX-A

(English version of the interview schedule)

Department of Agricultural Extension & information System

Sher-e-Bangla Agricultural University

Dhaka-1207

AN INTERVIEW SCHEDULE FOR COLLECTING DATA FOR A STUDY  
ENTITLED " PARTICAPATION OF RURAL YOUTH IN SELECTED INCOME  
GENERATING ACTIVITIES RELATED TO AGRICULTURE"

Name of the respondent:-----

Father/Husband:----

Sample No.:----

Village:-----

Union:-----

Please answer the following questions

### 1. Age

What is your present age?-----Years

### 2. Please state your level of education:

a) Can not read and write ( )

b) Can sign only ( )

c) Have passed----- ( )

d) Did not attend any school . The level education somewhats equivalent to class

-----

### 3. Family size:

Please mention the number of your family members (including yourself)

Sl. No.	Types of family members	Number	Score
1.	18 Years or more than 18 years		
2.	7-17 years		
3.	6 Years or less than 6 years		
Total			

### 4. Farm size

Please mention the area of your land according to tenure status

Sl. No.	Types of land use	Area of land	
		Local unit	Hectare
1.	Homestead area		
2.	Own land under own cultivation		
3.	Land given to others on borga		
4.	Land taken to others on borga		
5.	Land taken from others on borga		
Total			



### 5. Annual Family income:

Please furnish your and your family members' annual income from different sources

Sl. No.	Sources of income	Amount of Taka
1.	Agriculture (Crops)	
2.	Livestock	
3.	Poultry	
4.	Fish culture	
5.	Business	
6.	Service	
7.	Labour	
8.	Others (if any)	
Total		

### 6. Training Exposure

Have you got any training from any government organization or any NGOs ?

Yes-----

No-----

If your answer is yes please furnish the following information

Sl. No.	Name of the training course	Training organization	Duration of training (No. of days)
1.			
2.			
3.			
Total			

### 7. Daily time use :

Please mention the extent of time use towards the following activities

Sl. No.	Types of activity	Extent of time use				
		Not at all	>2 hours	>2-4 hours	>4-6 hours	>6 hours
1.	Vegetable cultivation					
2.	Nursery of fruits and tree					
3.	Poultry rearing					
4.	Cattle rearing					
5.	Fish culture					

### 8. Rural mindedness:

(Please indicate the extent of your agreement with the following statements)

Sl. No.	Statement	Intensity of mindedness			
		Agree	Moderately agree	No opinion	Disagree
1 +	Undertaking income generating activities within the family is good.				
2 -	Migrating to town is good for income generating activity.				
3 +	Homestead gardening is good and suitable for youths.				
4 -	If one migrates to town , there will be many jobs available.				
5 +	Homestead gardening is more profitable than an ordinary employment.				
6 +	There has been favorable and conducive atmosphere in a village for rural youth in income generating activities.				
7 -	Migrating to town is good for cash earning.				
8 +	Considering security and family responsibilities , it is better for youths to undertake income generating agricultural activities.				
9 +	Considering security alone , it is difficult and dangerous to migrate to town for jobs leaving the village				



### 9. Credit received:

a) Did you feel the need for credit to operate income generating activities in last one year ?

Yes-----

No-----

b) If yes, please mention the amount of credit you have received last year

Sl. No.	Source of credit	Amount of credit received
1.	Bangladesh krishi Bank	
2.	Commercial Bank	
3.	Other NGOs	
4.	Village money leader	
5.	Businessman	
6.	Neighbors & relatives	
7.	Others	

### 10. Participation of rural youth in selected income generating activities related to agriculture:

Please indicate the extent of your participation in the following IGAs

Sl. No.	IGAs	Extent of participation				
		Not at all	Very low	Occasional	Quite regular	Regular
1.	Vegetable cultivation					
2.	Nursery of fruits & tree					
3.	Poultry rearing					
4.	Cattle rearing					
5.	Fish culture					

### 11. Problem Confrontation in IGAs related to agriculture:

Please indicate the extent of problem confrontation in selected IGAs related to agriculture

Sl.No.	Problems	Extent of problems			
		High	Medium	Low	Not at all
1.	Lack of agricultural loan				
2.	Complexity to receive agricultural loan				
3.	Lack of communication with extension agents				
4.	Lack of current cash				
5.	Lack of cultivable land				
6.	Lack of modern agricultural tools				
7.	Lack of veterinary doctor				
8.	Lack of inputs				
9.	High price of inputs				
10.	Lack of hatchery for production of fishery				

Thank you for your kind cooperation

Date:

-----  
Signature of the interviewer

## APPENDIX-B

### CORRELATION MATRIX AMONG THE VARIABLES OF THE STUDY (N=100)

VARIABLE	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X <sub>9</sub>	y
X <sub>1</sub>	1									
X <sub>2</sub>	-0.22 <sup>NS</sup>	1								
X <sub>3</sub>	.445**	.103 <sup>NS</sup>	1							
X <sub>4</sub>	.068 <sup>NS</sup>	.133 <sup>NS</sup>	.060 <sup>NS</sup>	1						
X <sub>5</sub>	-.001 <sup>NS</sup>	.274**	.221*	.431**	1					
X <sub>6</sub>	-.194 <sup>NS</sup>	.368**	.043 <sup>NS</sup>	.056 <sup>NS</sup>	.188 <sup>NS</sup>	1				
X <sub>7</sub>	.137 <sup>NS</sup>	-.005 <sup>NS</sup>	.095 <sup>NS</sup>	.005 <sup>NS</sup>	.124 <sup>NS</sup>	.076 <sup>NS</sup>	1			
X <sub>8</sub>	-.036 <sup>NS</sup>	-.050 <sup>NS</sup>	-.026 <sup>NS</sup>	.055 <sup>NS</sup>	-.048 <sup>NS</sup>	.020 <sup>NS</sup>	.194 <sup>NS</sup>	1		
X <sub>9</sub>	.027 <sup>NS</sup>	.040 <sup>NS</sup>	-.042 <sup>NS</sup>	.232*	-.018 <sup>NS</sup>	-.140 <sup>NS</sup>	-.049 <sup>NS</sup>	-.073 <sup>NS</sup>	1	
Y	-.035 <sup>NS</sup>	.222*	.041 <sup>NS</sup>	.213*	.237*	.360**	.343**	-.025 <sup>NS</sup>	.031 <sup>NS</sup>	1

NS = correlation is not significant

\* = Correlation is significant at the 0.05 level

\*\*= Correlation is significant at the 0.01 level

Table value of 'r' at 0.01 level = 0.256 and 0.05= 0.196 with 98 d.f.

X<sub>1</sub> = AGE

X<sub>2</sub> = EDUCATION

X<sub>3</sub> = FAMILY SIZE

X<sub>4</sub> = FARM SIZE

X<sub>5</sub> = ANNUAL FAMILY INCOME

X<sub>6</sub> = TRAINING EXPOSURE

X<sub>7</sub> = DAILY TIME USE

X<sub>8</sub> = RURAL MINDEDNESS

X<sub>9</sub> = CREDIT RECEIVED

Y = PARTICIPATION IN SELECTED IGAs  
RELATED TO AGRICULTURE