

**PARTICIPATION OF RURAL WOMEN IN INCOME GENERATING  
ACTIVITIES IN AGRICULTURAL MODEL FARM PROJECT OF  
SABALUMBY UNNYAN SAMITY (SUS)**

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SABALUMBY UNNYAN SAMITY (SUS)**

**BY**

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## *CERTIFICATE*

This is to certify that thesis entitled “**Participation of Rural Women in Income Generating Activities in Agricultural Model Farm Project of Sabalumby Unnyan Samity (SUS)**” 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 **Anwarul Haque, Registration No. 00842** under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

I further certify that such help or source of information, as has been availed of during the course of this investigation has duly been acknowledged.

**Dated:**  
**Dhaka, Bangladesh.**

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**(Prof. Mohammad Hossain Bhuiyan)**  
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**PARTICIPATION OF RURAL WOMEN IN INCOME GENERATING  
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**ABSTRACT**

This study was conducted mainly to have an understanding about the participation of rural women in income generating activities initiated by Agricultural Model Farm (AMF) project of Sabalamby Unnayan Samity (SUS). This also explained the relationship between extent of women participation in income generating activities initiated by AMF project of SUS and their selected characteristic. Data were collected from a sample of 90 rural women from 12 selected SUS groups in two unions namely Amtala and Singher Bangla of Sadar upazila of Netrokona district. Data were collected through interview schedule during 20 April 2008 to 20 May 2008. Majority (47.78 percent) rural women had favorable participation, while 36.67 percent had moderate favorable participation and there was no respondent under unfavorable participation. Findings also indicate that 80 percent rural women had high participation in AMF project activities, (81.11 percent) had medium training exposure, 60 percent had low extension media exposure, 75.56 percent had moderate cosmopolitaness and 91.14 percent had primary level education including can sign only. Correlation analysis indicates that the characteristics of the rural women such as age, family size, family farm size, farming experience, duration of involvement with SUS, cosmopolitaness, annual family income, extension media exposure, and credit receive and training exposure had no significant relationship with the extent of participation in AMF project activities. On the other hand, education and farming experience had positive relationship with their participation in income generating activities initiated by AMF project of SUS.

# CHAPTER 1

## INTRODUCTION

### 1.1 General Background

Women constitute nearly half of the total population in Bangladesh. The role of women in the economic development of Bangladesh cannot be overlooked. Many reports show that women play a significant and crucial role in agricultural development including crop production, livestock production, horticulture, post harvest operation, agro-social forestry, fisheries and poultry. In a developing country like Bangladesh, the underemployed women labour force forms a vast reservoir of human resources. According to some historians women first initiated agricultural practices. They first domesticated crops and animals and developed art and sciences of farming. They were pioneers in plant domestication and planned agriculture (Childe, 1971). Ali et al. (1978) stated that women contribute significantly in various activities under homestead agricultural like composting, transplanting, sowing, weeding, harvesting, drying, homestead gardening, fruits and tree planting and the like.

Lovell (1991) states “Poverty particularly affects women. Traditionally poor women in Bangladesh rural areas have few rights, little choice about the courses of their lives and almost no opportunities to change their situations. They are often deserted when husbands cannot find income in the villages and move away to pursue work”. The UNDP reports also suggested making use of the full potentials of women to accelerate development in Bangladesh (UNDP, 1994). But by social custom Bangladeshi women are suppressed by men in all spheres of their lives. The activities of women are mainly restricted within the household especially in taking care of children and other family members and maintaining homes. In addition the rural women also engage themselves in agricultural and non agricultural productive activities within the homestead (Halim and McCarthy, 1985).

Basic life support systems such as land, water, flora and fauna are conserved by women (Swaminathan, 1985). The nature and extent of women involvement in agriculture varies widely from region to region. But regardless of this variation, women mostly participated in processing and storage of food grain from ancient time. Equal and effective participation of men and women is essential to achieve sustainable development. More than 2500 NGO's are working in Bangladesh (BBS, 2005). Sabalamby Unnayan Samity(SUS) is one of them.

### **1.2 Sabalamby Unnayan Samity(SUS) and its Activity**

Involving women in the development activities many NGO's including BARC, PROSHIKD, and ASA etc, who were incepted at different times. NGOs including BRAC, Proshika and ASA. They successfully incorporated women in their development programme. Sabalamby Unnayan Samity (SUS) is a NGO which is working at Netrokona, Sunamganj and Mymensingh district for the socio-economically deprived people and especially for the distressed rural women. SUS evolved in 1985 out of a small number of women initiatives, it started its journey through introducing careful interventions for improving socially and economically deprived section of society.

#### **The Vision of SUS**

People live and work in a harmonious society.

#### **The mission of SUS**

- ❖ SUS is a NGO works with underprivileged and marginalized people especially women, children, adolescents and disables through a rights based holistic approach, with a prime focus on livelihood development of family.
- ❖ SUS family believes in emphasizing an inclusive gender approach, community participation and is working towards integration and collaboration with the government and other relevant organizations to enhance the quality of women lives.
- ❖ SUS will continue to distinguish itself as a development organization oriented to a holistic approach to meet the organizational and community need maintaining its professionalism.



## Legal Status of SUS

Registration of social Welfare Department: 1986

Registration of NGO Affairs Bureau: 1990

## Population coverage by SUS

25% population of working area.

## Geographical coverage by SUS

Sl.No	Name of the district	Name of /IDF/Branch office/Upazila
1.	Netrakona	Netrokona sadar, Atpara, Modon, Kendua, Purbadhala, Mohonganj, Barhatta, Kalmakanda, Khaliajuri and Shyamganj,
2.	Sunamganj	Dharmapasha
3.	Mymensingh	Mymensingh sadar , Guoripur and Ishwarganj

Development is a continues process, which help to bring a better condition of individual, family and society from a vulnerable condition, considering the need of time. SUS was involved itself with sustainable development from 1988-2000. SUS works on right-based approach. Right is derived from values. The major elements of right are relation, respect, honor, morality demands, recognition, duties and responsibilities etc. So, we may define “Right” the opportunities to explore the personality of human beings that are accepted by the family society and state (SUS, 2002).

SUS works with underprivileged and marginalized woman, children, adolescence and disables through a holistic approach, with a prime focus on livelihood development. SUS is committed to bring about positive changes in the quality of lives of the deprived people by making available education, comprehensive health services micro credit as well as other social services that enable them to exercise socio-economic rights. To establish right-based approach SUS undertook many development projects. Agriculture Model Farm Project (AMF) is one of this, through which right of the women was established. The aim of this project was to bringing about changes in;

- i) Attitude
- ii) Knowledge
- iii) Skill
- iv) Decision
- v) Making in family affairs
- vi) Income and social status

### **1.3 Agricultural Model Farm (AMF) Project**

Agricultural Model Farm Project of SUS is a special task which was initiated in 1994. This project has taken to achieve sustainability in agriculture. Total area of the farm is 2.83 hectare. From these, rice is cultivated in 2.02 ha, vegetables are cultivated in 0.202 ha, fishes are cultured in 0.202 ha, local fruit orchard is in 0.101 ha and office room, training room, seed house, low shed, labor house etc. are in 0.303 ha. All the practices which are performed within the model farm are experimental. Because seeing believes, one believes that what he/she sees by his/her own eyes. Through these demonstration plots of AMF project SUS is able to build awareness, capacity among the target groups as well as encouraging producing jute, mustard and leguminous crops.

The main themes of AMF project are, organic agriculture, medicinal plant conservation, local fruits plantation, indigenous knowledge promotion, and my agriculture and culture conservation. These themes are taken to create a balance between the life of farming families and the environment where they live and work.

However, the main objectives of AMF project are mentioned below

- i) To disseminate the appropriate and environment friendly technologies to the target people.
- ii) To create scope for agricultural in come generating activities.
- iii) To produce, preserve the local seed and reduces dependence on the genetically modified seeds
- iv) Decrease use of chemical pesticides and fertilizers and promote to use of sustainable alternatives.

- v) To initiate an active aware group against environmental threat and harmful state policies with scrotal interests and
- vi) To aware beneficiaries for maximum use of their local resources.

The main reason is to involve women in SUS activities because women are disadvantageous class in Bangladesh, but women are involved in AMF project because the role of women can not be overlooked in the economic development of Bangladesh. Many reporters show that women contribute more labor to agriculture than men do.

#### **1.4 Statement of the problem**

Due to large number of population, Bangladesh is burdened with poverty which is responsible for slow pace of development. In this situation, to accelerate the pace of development women should participated in every sphere of development process. The government of Bangladesh is trying to make effort towards formation of policies aimed at bringing about significant socio-economic improvements to the people and ultimately self reliance for the nation by incorporating the women participation in the main stream of development process. Because women are the disadvantageous class of the society. Both government organizations and NGOs are working for women particularly rural Women development. 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. This can be achieved by improving their level of knowledge, increasing skills and awareness of wider environment and by modifying their controversy power in a variety of relationships and also by changing the way in which people perceive women and in which women perceive about themselves with reference to the impact of participation. SUS mostly deals with landless women , the disadvantageous class of the society , Many activities like , livestock , fisheries , poultry , vegetable cultivation, education, farming, planning , for extreme poor women development and AMF project etc, are being operated by SUS for the women . Among these activities AMF has been considered to achieve sustainability in agriculture through the involvement of women by practicing

ecologically friendly agriculture. The AMF project is performing various activities to achieve sustainability in agriculture since 1994. But a very few studies have been done to identify how far stated objectives of AMF project has achieved.

In view of the foregoing discussion the researcher undertook a piece of study entitled “Participation of rural women in income generating activities from Agricultural Model Farm Project of Sabalamby Unnayan Samity (SUS)” .The main purpose of the study is to measure the extent of rural women participation of income generating of AMF. So the study was conducted to know how they look at AMF and their consequences with following questions:

- i) To what extent women participate and get income generating activities from AMF?
- ii) What characteristics of rural women influence their participation of income generating activities from AMF?
- iii) What relation exists between their selected characteristics of the women and their participation regarding of AMF?
- iv) What are the problems faced by the rural women to be involved in AMF?

### **1.5 Specific Objectives of the Study**

In view of the foregoing discussion, the following specific objectives were formulated for giving proper directions of the study:

1. To determine and describe the characteristics of rural women involved in agricultural model farm project of SUS. The characteristics are:
  - 1) Age
  - 2) Education
  - 3) Family size
  - 4) Family Farm size
  - 5) Farming Experience
  - 6) Duration of Involvement with SUS
  - 7) Cosmopolitaness

- 8) Annual family income
  - 9) Extension media contact
  - 10) Credit availability
  - 11) Training received
  - 12) Organization participation
2. To find out the extent of participation of rural women in income generating activities from agricultural model farm project activities of SUS
  3. To explore the relationship between women participation of AMF project of SUS and their selected characteristics.

### **1.6 Justification and Scope of the Study**

Nowadays agriculture has to meet the needs of society as a whole producing food and other product while protecting natural resources i.e. sustainability in agriculture is the burning issue in Bangladesh. Keeping this in mind, Agricultural Model Farms have been established in different parts of Bangladesh under SUS. Large numbers of rural women are involved in AMF. But women participation of in income generating activities from AMF is not widely known. As literacy rate of women is very low in general there are many constraints in their involvement in AMF. However, the participation level of rural women may differ due to existing social values, norms, culture etc. and mostly intervention taken by different development organization. Therefore, the study was undertaken to determine the rural women participation of in income generating activities from AMF project of SUS.

The findings of the study will be expected to be of great value for research, extension providers, students and particularly planner in formulating and designing of AMF. The present study was initiated in order to have an understanding of participation of rural women regarding AMF of SUS. The findings of the study are mainly applicable to SUS area. However, finding may also be applicable for other areas of the country having similar physical, socio-economic, cultural and geographical condition of the study area.

Lastly, the researcher believes that the study will enhance the intellectual competence of the researcher and also contribute significantly to the development of AMF of SUS and those women who are involved in AMF.

### **1.7 Assumption of the Study**

“An assumption is the supposition that an apparent fact or principle is true in the light of the available evidence” (Carter, 1945). The following assumptions were in the mind of the researcher while undertaking this study.

- The respondents of the study area were capable of furnishing all the desired information stated in the interview schedule accurately.
- Information furnished by the women included in the sample was representative of the all women in the AMF project of the SUS.
- The researcher who acted as an interviewer was well adjusted to the social and environment of the study area. Hence, the data collected by him from the women were free from bias and hesitation.
- The responses furnished by the respondents were reliable.
- The findings of the study are expected to be help to establish AMF in different parts of the county.

### **1.8 Definition of Important Terms**

**Agriculture:** Agriculture is the art and science of crop, fish and livestock production. Agriculture comprise the entire range of technology association with the production of useful products from plants, animals including soil cultivation , crop, fish and livestock management and the activities of processing and marketing.

**Model:** A simple and imitable pattern of activities is commonly termed as a ‘Model’. Model is rigid and simple.

**AMF:** AMF stands for Agricultural Model Farm which was initiated in 1994 by SUS as a project. This project was taken to train the rural women for using their credit, time and resources effectively. AMF itself introduced organic farming

activities to reduce dependence on external resources. AMF also collected local varieties which are disappearing day by day.

**Project:** project is a set of interrelated activities created to produce specific outputs which together achieve the project objectives within specified resources constraints.

**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.

**SUS:** SUS stands for Sabalamby Unnayan Samity which is a local rural-based Non Government Organization (NGO) at Netrokona district. SUS has been working in development sector. SUS was involved itself with service oriented activities form 1986-2000. In the year 2001, SUS felt necessity to newly thinking in development approach through previous experience and learning from service oriented activities. SUS will provide technical support to people's organization.

**Education:** Education of an individual respondent was defined as the formal education received upto a certain level from an educational institute of the time of interview and measured in terms of actual years of successful schooling.

**Family Size:** Family size referred to the actual number of member in the family of the respondent including herself, her husband, children, brother, sisters, and any other permanent dependents that live and eat together with her.

**Farm Size:** The term referred to the hectare of land owned by herself or by her husband on which farming activities and family business and carried out.

**Family income:** It was defined as the total earning of the respondent women and other members of their family from crop, livestock, poultry, fisheries and other sources during the previous year.

**Training exposure:** It referred to the total number of days that a respondent received training in her entire life from different organization under different training programs.

**Cosmopolitaness:** It referred to the orientation or exposure or involvement of the respondent women external to her own social system.

**Credit received:** Credit received by respondents women were the total amount of money she received from SUS and other organizations as credit for performing different developments works.

**Organizational participation:** Organizational participation by the respondent women is referred to her contact with and participation in various organizations within a specific period of time. Women could take part in different activities of organizations within a specific period of time as ordinary member/executive committee member/ an officer (President, secretary, treasurer, etc). All these forms of participation were considered.

**Rural women:** Rural women in this study meant the married, unmarried, widow or divorced women living in the rural areas or villages as individual or families and engaged in agricultural Model Farm (AMF) Project of SUS.

**Agricultural Knowledge:** Agricultural knowledge was the extent of basic understanding of the respondent in different aspects of agricultural subject matters. It includes the basic understanding of the use of different agricultural activities i.e. crops, livestock and fisheries etc.

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

**Respondent:** Respondent referred to the rural women being involved in AMF project of SUS activities and included in sample.



## CHAPTER 2

### REVIEW OF LITERATURE

The study was conducted “Participation of Rural Women in Income Generating Activities from Agricultural Model Farm (AMF) Project of SUS”. It is relevant with the objectives of this study. Characteristics of the rural women were selected as independent variable of the study. Related literatures representing this study are not readily available. However, the researcher tried his best to collect needful information through searching relevant studies, journals and periodicals, bulletins etc. This enhanced the researcher’s knowledge for better and clear understanding and better handling of the study.

#### 2.1.1 Age and Participation

Akter (1990) stated that there was positive correlation between age of the women and their participation in both agricultural and non-agricultural activities.

Dickerson (1992) in his study observed that younger women were concerned almost primarily with productive activities while older women were involved more in decision making within their households and they had to play extra domestic roles.

Faroque’s (1997) study on female rural youth in Mymensingh revealed that age had no relationship with their participation in homestead agricultural activities but age had significant positive relationship with their problem confrontation in selected issues.

Islam (1991) showed that age of the women was not significantly related their extent of participation in come generating activities.

Naher(2000) in her study found that there was no relationship between age and participation in income generating activities are mostly participated by the rural women.

### **2.1.2 Education and Participation**

Ary (1979) on her study on women's role in decision making in farms credit found that family education had no significant relationship with women participation in decision making.

Basak (1997) in his study found that education of the rural women under BARC had a positive significant relationship with their impact of participation in BARC rural development activities.

Begum (1998) in her study entitled "Poverty Alleviation of the Rural Women Organized by Association for Social Advancement" observed that education of the rural women had a positive significant relationship with their poverty alleviation owing to participation in ASA activities.

Devi(1995) found that own education of women had a significant positive impact in labour force participation.

Khan (1983) found that the rural women's education level had a positive relationship with then participation in community activities and income generation projects in Bangladesh.

Saha (1997) found that level of education of the youth had significant negative relationship with their participation in agricultural activities but positively correlation with the income generating activities and problem faced by the rural youth.

### **2.1.3 Family Size and Participation**

Akter (2000) reveled 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.

Basak (1997) found that the family size of the rural women under BARC had significant relationship with their impact of participation in BARC 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. Naher (2000) reported that there was no relationship between family size and participation of women in income generating activities through agricultural practices but she found significant positive relationship between family size participation in post harvest practices.

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

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

#### **2.1.4 Farm Size and Participation**

Akanda (1994) in his study mentioned that farm size was one of the most crucial variables in the activities of rural family and it influenced all other variable. The rural women with bigger farm size had more participate in income generating activities. The reasons were that these families had more opportunities, more education, more agricultural knowledge and better extension contact.

Akter (2000) found that there was a significant positive relation between farm size of the women and their participation in decision making role in the family with regard to development activities.

Basak(1997) observed receive that farm area of the rural women under BARC had significant relation with their impact participation in BARC development activities.

Begum (1998) observed that the farm area of the rural women had no significant relation with their poverty alleviation due to their participation in ASA development activities.

Nager(2002) in her research findings found that rural women with larger farm size had more participation in income generating activities like vegetable cultivation and post harvest activities but their participation in goat rearing was low . However, rural women of all farm categories participate in poultry rising. Further, rural women housewives with small farm size participate more in goat rearing than those big farm.

Rahman (1995) found that home-cum-farms size of the Imams had a significant positive relationship with their participation in rural development activities.

Saugwan *et.al.* (1990) conducted a study on participation of women in farming activities and found that involvement of women decreased in farm activities with increasing farms size.

### **2.1.5 Framing Experience and Participation**

BARC (2006) observed that BARC individual contact of rural women had significant influence of their improvement of Knowledge, attitude and skills through farming experience.

Selim and Zaman(1994) found a significant positive relationship between BARC contact rural women and their knowledge .. They found that with the increase of BARC contact, knowledge level of rural women also increased.

Verma *et.al* (1989) conducted a study on gain in knowledge and change in attitude through farming experience. The study revealed that attitude of farm women changed significantly after farming involvement. They remarked that due to gain practical knowledge the attitudes become more favorable.

### **2.1.6 Duration of Involvement and Participation**

Abdullah and Zeidenstien(2003) reported that women in rural Bangladesh involvement for income generating activities. Women contribute to the financial support of the family for their own future security provided that women are economically motivated and active.

Miah et al. (2004) 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 duration of involvement in income generating activities.

### **2.1.7 Cosmopolitanism and Participation**

Akanda (1994) found that non-located behavior or cosmopolitanism of rural women was negatively correlated with their participation in homestead vegetable cultivation, cultivation of fruit trees and non- farm household activities.

Amin and Pebley (1994) measured the impact of BRAC's programme participation on an average of women's status indication such as over household resources, mobility, autonomy, attitudes and aspirations, the study estimated programme's impact on the measured of gender inequality. The findings indicate that even that even after about two years the programme had significant impact to minimize gender inequality within the household in terms of women's participation in decision making and control over resources, women's attitude and aspiration regarding marriage and education for their daughters.

Anwar (1999) found that the cosmopolitanism of the rural youth had no relationship with their participation and interest in agricultural activities and income generating activities. But he found that cosmopolitanism had significant positive relationship with the problem of the youth in job opportunities.

### **2.1.8 Annul Family Income and Participation**

Akanda (1994) observed in his study that family income had significant positive relationship with their participation in the cultivation of fruit trees and non- farm household activities but not with homestead vegetable cultivation.

Anjana (1997) reported in her research study that income of the households under PROSHIKA project from sale of vegetables, fruits, poultry, and dairy products and agricultural employment increased substantially in the study area. Household income was reported to have increased by 72 percent from summer vegetables, 326 percent from winter vegetables and 640 percent from year round vegetables production. Overall labour absorption from non-agricultural sources increased by 74 percent for respondents after they came under PROSHIKA programme. Increase of participation in decision making by women was reported to have increased by 137 percent.

Khandker and Chowdury (1995) reported that the levels of participating women's consumption rose with increase of annual income.

Parvin (1998) found that annual income of Grameen Bank (GB) member households increased by 126 percent against the non-Grameen Bank members and income of Grameen Bank household was highly significant at 0.01 levels between the previous Grameen Bank household's income and the current non- Grameen Bank household income. She also observed that monthly savings per family rose from 34.25 Tk. to 293.75 Tk. She further reported that family asset increased by 41 percent after their participation in Grameen Bank.

Paul(1996) conducted a study on the impact of livestock programme of BRAC in sadar thana of Mymensingh district the results the experiment revealed that a substantial positive change occurred in family income of the participants after their joining the much cow rearing and beef fattening programme of BRAC.

Premchander (1994) reported that increasing women's income did not just benefit women themselves but also raised the nutritional and educational status of their families. Two approaches to raising women's income: the employment approach, whereby women were employed in a production unit owned and ran by an NGO; and the empowerment approach, which involved forming village groups and developing self confidence, and enabling women to increase their incomes through collective actions and group savings.

Rahaman (1993) studied the resource use efficiency income and employment generation of homestead agro forestry. The findings suggested that their income and employment increased substantially due to their participation in the agro-forestry projects.

### **2.1.9 Extension Media Exposure and Participation**

Islam (2005) found in his study that Extension media contact of farmers had no significant relationship with participation of both cause and remedies of Monga.

Sayeed (2006) observed that extension positive relationship between media contact of farmers and their participation of income generating activities from using manure towards INM for sustainable crop production.

Kabir (2002) observed that communication exposure had positive significant relationship with their participation of environmental upgradation.

### **2.1.10 Organizational Participation and Participation**

Alom (2007) reported that organizational participation of the farmers had significant positive relationship with their participation of income generating activities.

Sayeed (2003) reported that organization participation of the farmers had no significant effect on their participation of income generating activities from using manure towards INM for sustainable crop production.

### **2.1.11 Credit Received and Participation**

Basak (1997) in his study observed that the credit availability of the rural women under BRAC had significant relationship in BRAC rural development activities, though a positive trend was observed between the concerned variables.

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

Begum (1998) in her study found that the credit availability of the rural women had a significant positive relationship with their poverty alleviation due to participation in ASA development activities.

Biswalo *et al.* (2001) observed women's participation in income generating activities as well as their need for access to credit. a system for the provision of loans to the women which also incorporated ways of collecting loans and monitoring how loans were used , was presented.

Khandker *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.

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 village's level employment and their impact on overall productivity.

### **2.1.12 Training Exposure and Participation**

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.



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.

Rahman (1999) observed that training exposure of the persons involved in Proshika activities and their change in income were significantly and positively related.

Verma 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.

### **2.1.13 Participation and Income Generating Activities**

Abudulai *et al.* (1993) reported that the Bawku East Women's development Association's (BEWDA) operations included the self organization of women into small informal groups undertaking self chosen food production and income generating activities. Members of BEWDA had also been afforded the opportunity to attend training programmes on literacy nutrition, agricultural extension and other relevant issues. Women assisted each other in home renovations, child care, and farming, food processing trading and other activities.

Ahmed (1987) in his paper “ Group approach to Empowering Women : An emerging paradigm for South Asia” –mentioned impact of various programme on women and states that significant change in income and employment of the participants takes place due to participation in rural development programme (RDP) activities. He found that real per-capita income of the participants increased by 116 percent between 1981 and 1987.

Begum et al. (1988) found that labour absorption for housewives in tailoring, teaching and other non-agricultural activities increased by 22 percent after their participation with RDRS.

Faroque (1997) found that the female rural youth had top preference for rearing g of poultry improved summer and winter vegetable cultivation in around the homestead, and vaccination of poultry.

Ghosh (1997) carried out study examine the households and agricultural activities performed by participating members to evaluate of PROSHIKA programmes on income, employment generation, enhancement of the status of women in decision making and problems faced by women in development activities. The finding showed that in general average per family total income under PROSHIKA programmes had increased by 164 percent and the total employment situation was better after participation of the respondents in PROSHIKA. She also observed that per family rice consumption increased by 55 percent, monthly savings increased by 229 percent .The overall value of assets possessed by household increased by 340 percent after their involvement with Proshika.

Halder (1995) observed that credit encouraged shifting from wage employment among the rural poor especially the women. Ninety two percent were used for productive purposes. Women's participation in income generating activities affected their behavior pattern and raised their status self confidence.

Hussain (1988) found that women in households were economically active and had a great contribution in various activities related to homestead agricultural production. But these contributions were not duly considered in national income accounting because of faulty national statistical procedures. The socioeconomic backwardness and women illiteracy were also responsible for underestimation of their contribution. The areas of women contribution were identified as livestock production, duck and poultry production, horticultural crops poultry and livestock rearing and diseased management. The study also revealed that to increase women's participation in economic activities, their skills must be improved.

Islam and Huq (1994) in their comprehensive study of duck chicken raising as well as cattle and goat raising in Bangladesh, showed different activities and gender wise management participation. It was found that women were more involved in purchase and sale of birds and meat (above 40 percent).

Lambert (1985) the phenomenon of commercial income generating projects, which are set up in recent years in Bangladesh by the large NGO's in their product of greater financial self-reliance. It was inconclusive that that point but pointed out that these were attempts to aid some of the perspectives, which the NGO commercial enterprises in this country represented.

Mazunder era al. (1983) conducted a study on women participation in agricultural and non –agricultural activities in Bangladesh villages. It portrayed the pattern and nature of activities of the rural women along with their socioeconomic conditions in their study area. The study revealed that no housewife was a sole decision maker in the family affairs. They study further depicted that rural women on an average spent 19 hours in a day for agricultural and non- agricultural activities.

Saha's (1997) study found that among 10 items in relation income activities to top three items were (i) cultivation of modern vegetable cultivation, (ii) cultivation of modern crop and (iii) small business.

Shehrawat and Sharma (1994) stated that the majority of the rural youth in India were interested in obtaining in crop production, farming, poultry farming, cottage and small scale rural industries , and tractor and operation and maintenance.

## **2.2 Conceptual Framework of the Study**

Rural women in Bangladesh have enormous problems towards leading a peaceful life. Specially, the rural women are the most vulnerable one. Scarcity of cash money, low level working ability and education, low participation in socio-political or community activities contribute to low productivity of the farm families. With the low income earning capacity, they seem to be the most vulnerable group in the society. In order to find the way out from this devastating trap some NGOs started to involve the rural women, with the policy-support from the GOs, in sorts of self- income generating activities.

Support is a must to mainstream rural women in development process through their self-employment generation. The supports might be the income generating activities based training, supervised credit, motivation and group-based consultation and cooperation. Both GOs and NGOs should work side by side to complement each other. While the perceived benefits of income generating activities, itself also need to be assessed. Organizational supports and perceived benefits of income generating activities may motivate to engage the rural women in income generating process. The role of involvement in societal activities and its organizations should also have impacts on such participation. The individual characteristics also shape their extent or nature of participation in income generating activities.

However, the study is undertaken to explore the causes behind the effective participation in income generating activities of rural women in the rural communities. Hopefully the cause-effect relationships and factors affective participation will lead to suggest some issues towards initiatives taken for this vulnerable and helpless rural women. The simple conceptual model of this work is presented below (Figure-2.2)

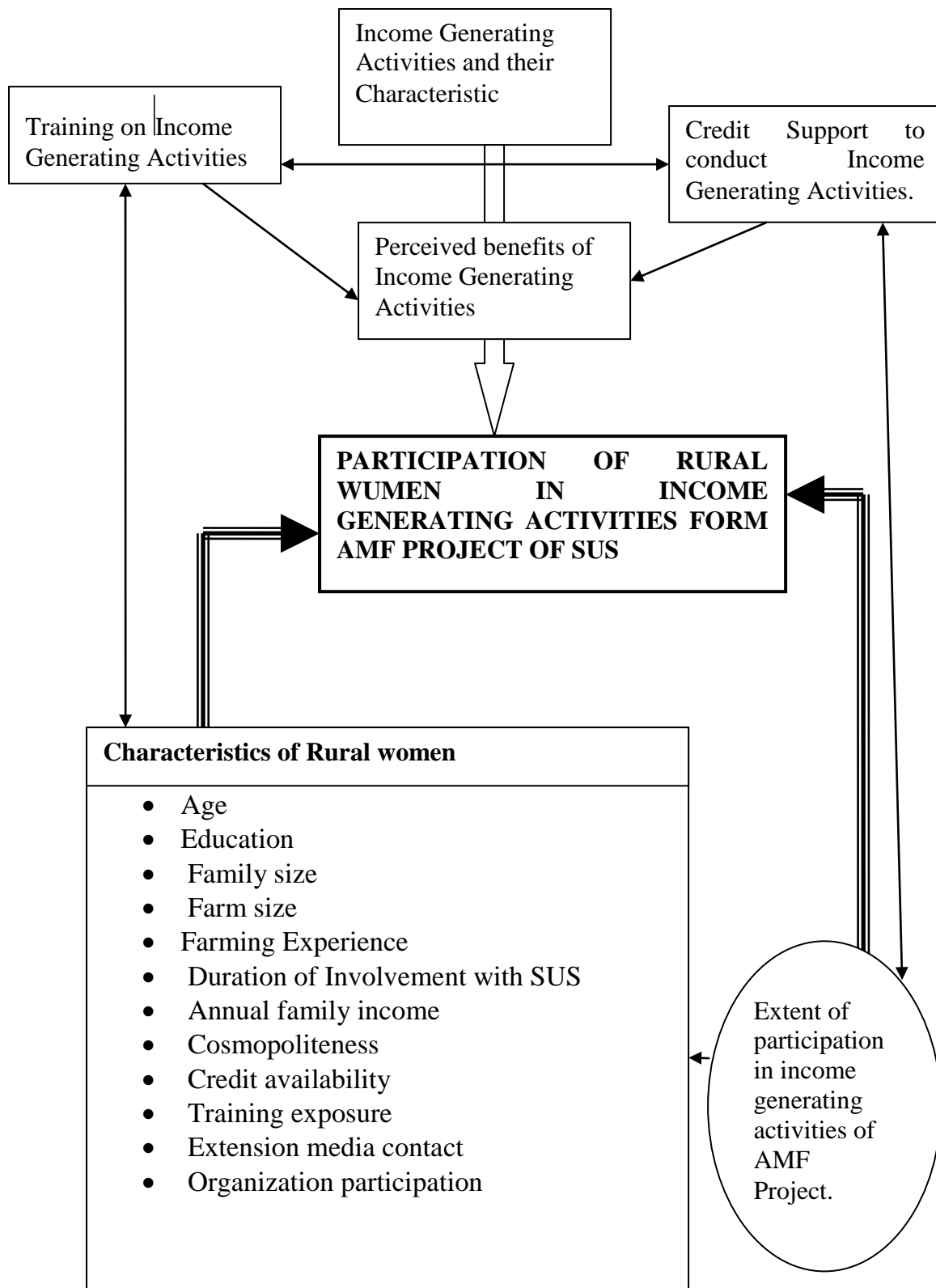


Figure2.2 Conceptual model of the study

## CHAPTER 3

### METHODOLOGY

To conduct this research work, the methods followed are described in this chapter. Further, the chapter included the operational definition of various important concepts and variables used in the study. The statistical methods and their use have also been mentioned in the subsequent section of this chapter.

#### **3.1 Locale of the study**

The present study was conducted in Netrokona district where the SUS headquarter is present. In Netrokona, SUS started its activities in 1986. But Agricultural Model Farm (AMF) Project was initiated in 1994. Sadar Upazila of Netrokona district consists of 11 unions along with Netrokona municipality. Eight union of sadar Upazila are under the coverage of AMF project activities of SUS. Among these unions Amtala and Singher Bangala were selected as all of the activities of AMF are in full operation in the two unions. While the communication by road is easier in comparison to other unions of Netrokona sadar Upazila. The researcher could communicate to the study area very easily by rickshaw, auto-rickshaw or bus. However, the related information about the study of the unions are given in table 3.1 A map showing Netrokona sadar Upazila has been presented in Figure 3.1 while the specific study locations under the Upazila have been shown in Figure 3.2

#### **3.2 Population and Sample**

Rural women involved in Agricultural Model Farm (AMF) Project of SUS in the study area were the population of the study. A list of population was prepared with the help of Project staff. In order to select the sample double stage sampling method was used. Amtala union consists of 9 groups and Singher Bangla union consists of 7 groups while each group usually comprises 7-15 women. Thus, 7 groups from Amtala and 5 groups from Singher Bangla union were selected of which total number of group members stands to 115. So, a total of 90 women constituted the sample of the study.

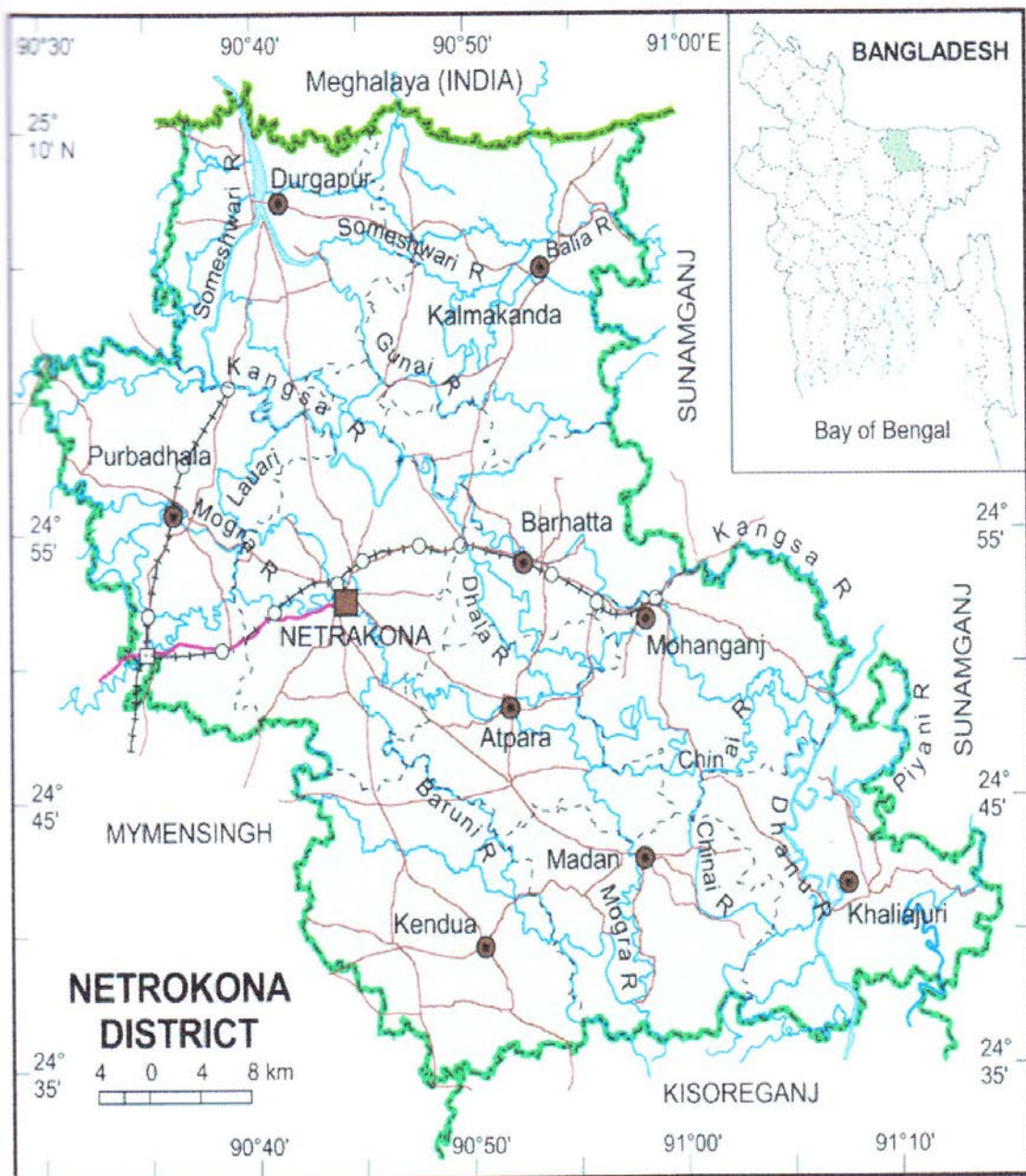
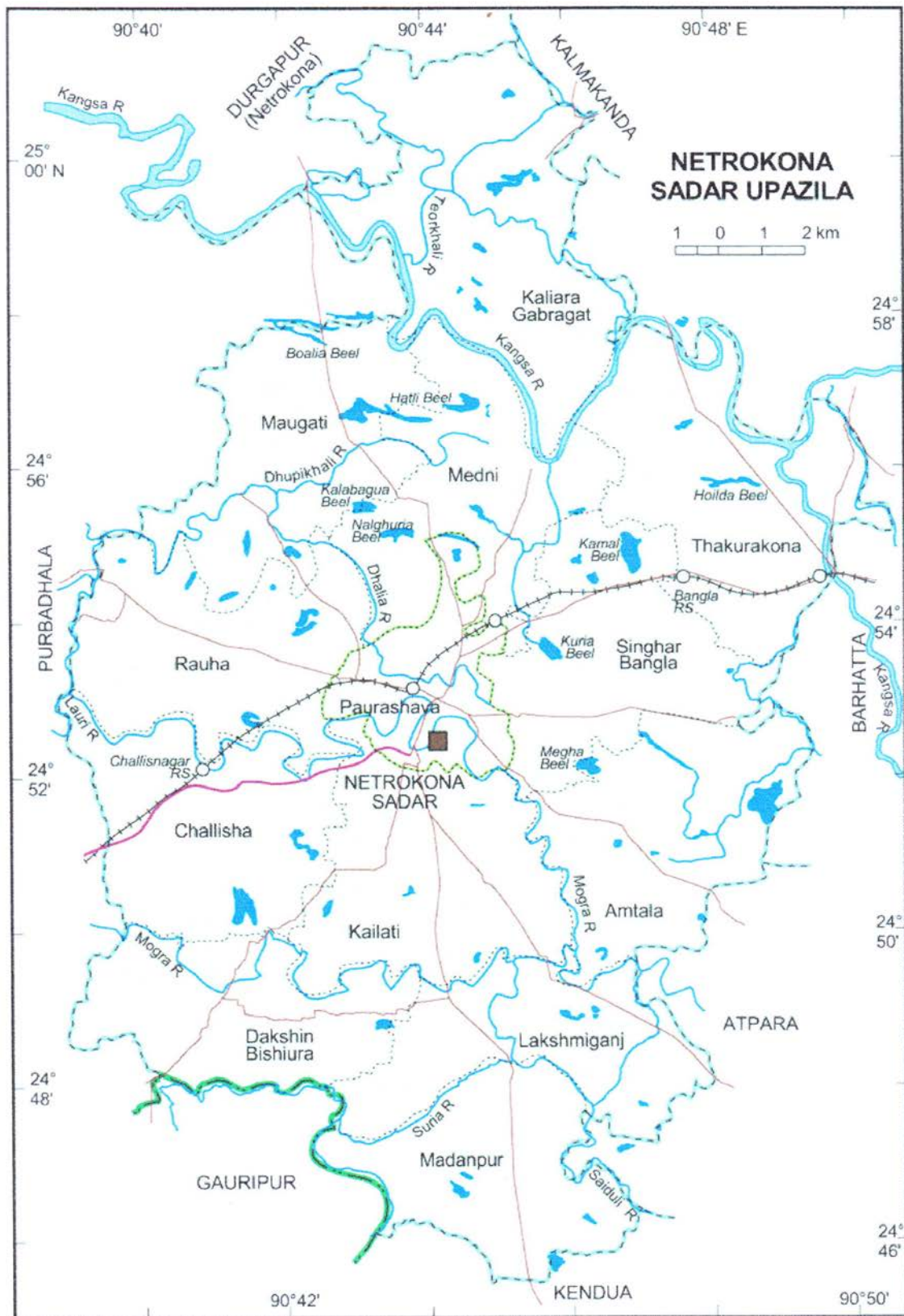


Figure 3.1 A map of Netrokona District showing Netrokona Sadar Upazila





**Figure 3.2 A map of Netrokona Sadar Upazila showing Singher Bangla and Amtala Union**



### **3.3 Instrument for Data Collection**

In order to collect data from the rural women of AMF project of SUS, an interview schedule was prepared. The schedule was prepared according to the objectives of the study. The interview schedule contained both open and closed form questions. Simple and direct question scales, and statements were included in the interview schedule to obtain essential information. Suitable scales were developed to handle different variables of the study.

### **3.4 Pre- Test**

The draft interview schedule was prepared and was pre-tested with 15 rural women. This pre- test result provided opportunity to the researcher to determine the appropriateness of different questions and statements in general. On the basis of pretest result, corrections and modifications were done in the interview schedule. The interview schedule was pre-tested with 15 rural women during 15 February 2008 to 17 February 2008. Necessary corrections, changes and modifications were made in the interview schedule in the basis of the pre-test. Then data were collected from the sampled rural women.

The English version of the interview schedule is presented in the appendix-A.

### **3.5 Collection of data**

The researcher himself collected necessary data through personal interview schedule from the individual respondents during 20 April 2008 to 20 May 2008. Before starting collection of data, the researcher met the AMF project staff of SUS. He first established rapport with the respondents and explained the objectives of the study clearly by using local language as far as possible. While starting interview, the researcher took all possible care so that a respondent did not feel hesitation. Whenever any respondent felt any difficulty in understanding a question, the researcher took possible steps to explain and clarify the same properly. As a result the respondent furnished proper responses to the question and the statement without hesitation.

In some cases, the researcher in his first attempt failed to meet the respondents at their residence for interview. In that case, the researcher attempted to contact them any repeating visits. No serious difficulty was faced in collecting data. Excellent cooperation was received from the respondents, AMF project staff, local leaders, and elites in various manners such as appointment for interview, locating houses etc,

### **3.6 Measurement of Variables**

According to the objective of the research, the researcher selected 13 characteristics of the rural women of the AMF project were considered as the independent variables where participation of rural women in income generating activities under Agriculture Model Farm (AMF) project of SUS

#### **a) Independent Variables**

##### **Definition of Independent Variables**

In this study the selected independent variables are-

##### **Age**

The age of the respondent was measured in terms of complete years from her birth to the time of interview on the basis of her response. A unit score was assigned for each year one's age (Akter, 2003). This variable appears in question no. 1 of the interview schedule as presented in Appendix-A.

##### **Education**

Level of education of a respondent woman was measured by the number of years of her schooling. A score of one was assigned for each of formal schooling completed by the respondent (Sharmin, 2005). For example if the respondent passed the SSC examination, score was given as 10. This variable appears in the question no. 2 of the interview schedule.

##### **Family size**

The family size of a respondent was measured by the total number of her family members including herself, her husband, children and other dependent who eat and stay together. A unit score was given for each member of the family (Kabir, 2002). This variable appears in the question no.3 of the interview schedule.

### **Farm size**

Farm size of respondent was measured in hector in which the household of the respondent women had its entire dwelling unit including home, vegetable land, fruits land, poultry rearing, and cattle husbandry, ponds and others. The data were first recorded in terms of local unit and than converted to hectare. This variable appears in the question no.4 of the interview schedule as presented in Appendix-A.

### **Farming Experience**

Farming Experience of respondent was measured by the number of years of farming practice. A score one was assigned for one year of farming practice. This variable appears in the question no.5 of the interview schedule

### **Duration of involvement with SUS**

It was calculated in terms of years of the respondent's response and as verified from SUS office. This variable appears in the question no.6 of the interview schedule.

### **Cosmopolitaness**

Cosmopolitaness of a respondent was measured by computing a cosmopolitaness score on the basis of her frequency of visit made by her to the eleven different places external to her social systems as shown in the question no 7 of the interview schedule. The following scoring technique was used in computing the cosmopliteness (Islam, 2005).

Nature of Visit	Scores assigned
Frequently	4
Occasionally	3
Often	2
Rarely	1
Not at all	0

The above mentioned weightage obtained from visit to each of the above categories of places were added together to get the cosmopolitaness score of a respondent. Thus, the total cosmopolitaness score of a respondent could theoretically range '0' to '44' where '0' indicated no cosmopolitaness and 44 indicate highest cosmopolitaness.

### **Annual family income**

The annual income of a respondent was measured on the basis of total yearly earning both from agricultural and non-agricultural sources (business, service, day labour etc.) earning by the respondent herself and other family members. The income from agricultural and other sources of a respondent added together to obtain her total annual income. A score of one was assigned to each of TK.1000. The variable appears in the question no 8. of the interview schedule.

### **Extension media Exposure**

Extension media exposure referred to the extent of contact of the respondent women with different information sources. It was assumed that the more contact of individual had with different extension media sources,. Extension media exposure score was computed for each respondent on the basis of her extent of contact with 10 selected media which is shown in item no.9 of the interview schedule. Each respondent was asked to indicate the frequency of her contact with each of the 10 selected media. The scale used for computing the extension media exposure score was as follows (Fardous, 2002):

Name of the communication media	Score assigned
Contact with AMF project staff per-week	0=Not even once 1=Once 2=Twice 3=3or more time
Contact with Sub Assistant Agricultural Officer(SAAO) per month	0=Not even once 1=Once 2= Twice 3=3or more time
Contact with Agricultural Extension Officer(AEO) per month	0=Not even once 1=Once 2= Twice 3=3or more time
Contact with Upazila Agricultural Officer(UAO) per year	0=Not even once 1=Once 2= Twice 3=3or more time
Contact with Local leader per week	0=Not even once 1=Once 2= Twice 3=3or more time

Visited with Demonstration plot in the last year	0=Not even once 1=Once 2= Twice 3=3or more time
Read News paper per week	0=Not even once 1=Once 2= Twice 3=3or more time
Contact with NGOs Leader per month	0=Not even once 1=Once 2= Twice 3=3or more time
Listen Farm Radio Talk per week	0=Not even once 1=Once 2= Twice 3=3or more time
Watch TV programme on Agricultural practices per week	0=Not even once 1=Once 2= Twice 3=3or more time

Extension media exposure score of a respondent was determined by summing up the scores of all the extension media. The extension media exposure score could theoretically range from '0' to '40' where '0' indicated no media exposure and '40' indicated maximum media exposure. This variable appears in question no 9 of the interview schedule.

### **Organizational participation**

Organizational participation of a respondent was measured on the basis of the nature of her involvement and duration of participation on different organizations. Organizational participation was operated by using the following formula (Hossain, 2000).

$$\text{Organizational participation score} = \Sigma(A \times D)$$

Where,

A= activities score

D= Duration score

Activities score were assigned in the following manner

Nature of participation	Scores assigned
No participation	0
Ordinary member	1
Executive committee member	2
Executive committee officer/president/Secretary/Treasure	3

Duration scores were assigned in the following manner

Duration of participation	Scores assigned
No participation	0
Participation upto 3 years	1
Participation from 4-6 years	2
Participation above 6 years	3

Organizational participation score of a respondent was obtained by summing up scores of the six organizations according to the above mentioned formula for her activities in the respective organization. Thus, organizational participation score of a respondent theoretically ranged from '0' to '54' where '0' indicated no Organizational participation and '54' indicated maximum Organizational participation. This variable appears in question no 10 of the interview schedule

### **Credit received**

Credit received of a respondent woman was measured in terms of the amount of money received by her as loan from SUS and other sources for implementation of AMF project activities. It was expressed in Taka. A score of one (1) was given for each thousand Taka. This variable appears in question no 11 of the interview schedule as presented in Appendix-A.

### **Training Exposure**

Training exposure was computed by total number of days a respondent attended in different training programmes in her life from SUS and other organizations. A respondent received short term training in her entire life up to the date of interviewing. This variable appears in question no 12 of the interview schedule. A score of one (1) was assigned for each day of training attended.

### **b) Dependent Variable**

The extent of participation of rural women in income generating activities from AMF project was dependent variable for this research. Participation in Agricultural Model Farm (AMF) project activities of a respondent was measured on the basis of the nature of her participation in 9 selected activities. The respondents were asked to mention their frequency of participation on 9 selected activities. A 5-point rating scale was used for computing participation in income generating activities of AMF project (Alam, 2003).

Pattern of participation	Scores assigned
Regularly	4
Often	3
Occasionally	2
Rarely	1
No participation	0

The obtained scores for all activities were summated together to obtain the extent of participation in income generating activities of AMF project score of the respondent could range from '0' to '36'. Where '0' indicated no participation and '36' indicate highest participation. Participation in the way that has been shown in question no 13 of the interview schedule.

### **3.7 Hypothesis of the Study**

For statistical test it is necessary to develop null hypotheses. A null hypothesis states that "there is no relationship between the independent variables and dependent variable".

The following null hypothesis was formulated to examine the relationship between the selected characteristics of the rural women and their participation in income generating activities from AMF projects of SUS.

### **3.8 Statistical Analysis of Data**

At the end of data collection, data were coded, compiled, tabulated and analyzed in accordance with the objectives of the study. Qualitative data were transferred into quantitative data by means of suitable scoring techniques and local units were converted into standard units, The statistical measures such as number and percentage distribution were used for describing the variables. The coded data were put into the computer for statistical analysis. The SPSS computer package was used for processing and analyzing of data.

For describing the variable of the study, the respondents were classified into appropriate categories. In developing categories, the investigator was guided by the nature of data and general considerations prevailing in the social system;

For exploring the relationship between selected characteristics of the respondents and their participation. Person's Product Moment Correlation Coefficient( $r$ ) was computed.



## CHAPTER 4

### RESULTS AND DISCUSSION

The findings and related interpretation are presented in four sections of this chapter according to the objectives of the study. The first section deals with the selected characteristics of the rural women in respect of their extent of participation of involvement in Agricultural Model Farm (AMF) Project. The second section deals with the rural women participation of involvement in AMF project. The third section deals with the relationship between the selected characteristics of the rural women and their participation of involvement in AMF project activities, while the final section deals with rural women constraints in involvement in AMF project activities.

#### 4.1 Selected Characteristics of the Rural Women

Thirteen selected characteristics of the rural women such as age, education, family size, family farm size, Farming Experience, Duration of involvement with SUS, extension media exposure, annual family income, cosmopolitaness, credit received, training exposure, organizational participation and Extent of participation in income generating activities of AMF project . The salient features of the characteristics of the respondents are presented in Table 4.1.

##### 4.1.1 Age

Age of the respondent women ranged from 25 to 65 years with a mean of 33.68 years and standard deviation of 5.38. Based on their age the rural women were classified into three categories as young, middle-aged and old. The Table 4.1 revealed that the highest proportion of the respondents (55.56 percent) were middle aged, while 37.78 percent were young and the remaining 6.67 percent old women were found among the beneficiaries of SUS.

**Table 4.1 Distribution of rural women according to their Age**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
Age (Years)	Unknown	25-65	Young (upto 30)	34	37.78	33.68	5.38
			Middle aged (31-50)	50	55.56		
			Old (>50)	6	6.67		
			Total	90	100		

A close look into the data indicates that involvement in AMF project activities under SUS were in the hands of young and middle-aged individuals. This is quite logical, because the young and middle-aged groups of women are the major target population of NGOs. Finding of the study of Sharmin (2005) showed that the highest proportion of the respondent (57 percent) were middle aged and 43 percent were young. Fardous (2002) observed that the highest proportion (72.7 percent) was middle aged compared to 22.8 percent old and 4.5 percent young and Jahan (2001) observed that 70.83 percent respondents were middle aged compared to 26.67 percent of them being old and 2.25 percent young.

#### **4.1.2 Education**

The level of education of the women respondents ranged from 0.5 to 13, the average being 2.09 with a standard deviation of 2.86. Out of 90 respondents, 91.11 percent had primary level of education including can sign only. All the respondent women are involved in SUS activities. Due to official rule every participant receives loan with the precondition that she has to sign her name. If she unable to sign her name she in not given loan. So, cent percent of SUS women were found to be literate, 6.67 percent had secondary level and remaining 2.22 percent had education of above secondary level Table 4.2.

**Table 4.2 Distribution of rural women according to their education**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
Education (Year of Schooling)	0-17	0.5-13	Primary level (0.5-5)	82	91.11	2.09	2.86
			Secondary level (6-10)	6	6.67		
			Higher secondary (>10)	2	2.22		
			Total	90	100		

Thus, 91.11 percent of the respondents were literate and literacy rate of the study area were much higher than national literacy rate (BBS, 2005).

Education broadens outlook of individuals and leads them to explore new ideas to solve problems. This study assumed that women having higher education were more progressive and innovative than those of illiterate and they can involve in AMF project activities of SUS more efficiently than who were less educated.

#### 4.1.3 Family size

The number of family members of the respondents ranged from 3 to 10. The mean was 5.96 and standard deviation was 1.40. Based on the family size score, the respondents were classified in to three categories small (up to 4), medium (5 to 6), large (>6) as shown in Table 4.3. Computed data show that majority (45.56 percent) of the rural women had large family size, while 41.11 percent of the respondents had medium family size and the remaining 13.33 percent had small family size.

**Table 4.3 Distribution of rural women according to family size.**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Respondent			
				Number	Percentage		
Family size (No. of members)	Unknown	3-10	Small (upto 4)	12	13.33	5.96	1.40
			Medium (5-6)	37	41.11		
			Large (>6)	41	45.56		
			Total	90	100.00		

In the study area it was observed that women of medium family size spent more time in AMF project activities of SUS compared to large family size. Women of large family can not get enough time for AMF project of SUS after completing household works. On the other hand, women of medium and small family size can participate in AMF project activities after completing house hold activities. So majority of women come from medium and small family size.

#### 4.1.4 Family Farm size

The family farm size of the respondent women ranged from 0.6 to 2.50 hectare with an average of 1.23 hectare and standard deviation 0.43. The respondents were classified in to two categories on the basis of their farm holding as shown in Table 4.4.

**Table 4.4 Distribution of rural women according their farm size**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
Farm size (Hectare)	Unknown	0.6-2.50	Small (0.6-1.0)	81	90.00	1.23	0.43
			Medium (<1.0)	9	10.00		
			Total	90	100.00		

Computed data indicated that 90.00 percent of women belong to small farm category, and the rest 10.00 percent under medium farm category. It indicates that majority of the families possessing small farm size. Actually the major reason is that NGOs target the resource poor people of the rural areas for their work. The case for SUS is also that.

#### 4.1.5 Farming Experience

The observed farming experience score of women ranged from 5 to 13. The average farming experience score of women was 8.09 with a standard deviation of 1.91. Based on the findings women were classified into three categories which is presented in the Table 4.5.

**Table 4.5 Distribution of rural women according to their farming experience**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
			Medium (5-10)	76	84.44		
			High (>10)	5	5.56		
			Total	90	100.00		

Data presented in the Table 4.5 show that majority (84.44 percent) of the respondents had medium farming experience; while 10.00 percent respondents had low farming experience and remaining 5.56 percent had high farming experience. The findings indicate that high portion of the rural women had medium farming experience i.e. participation of women was highly effective to high farming experience in the study area. The increased of farming experience with the increasing of skilled women.

#### 4.1.6 Duration of Involvement with SUS

The observed duration of involvement with SUS score of women ranged from 4 to 18. The average duration of involvement with SUS score of women was 9.24 with a standard deviation of 3.34. Based of the findings women were classified into three categories which is presented in the Table 4.6.

**Table 4.6 Distribution of rural women according to their duration of Involvement with SUS**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
			medium (5-10)	56	62.22		
			High (>10)	20	22.22		
			Total	90	100.00		

Data presented in the Table 4.6 show that majority (62.22 percent) of the respondents had medium duration of involvement with SUS, while 22.22 percent respondents had high duration of involvement with SUS and remaining 15.56

percent had low duration of involvement with SUS. The findings indicate that high portion of the rural women had medium involvement with SUS i.e. participation of women was highly effective to high duration involvement in SUS in the study area .i.e. the more involvement of women increased skilled women.

#### 4.1.7 Cosmopolitaness

The observed cosmopolitaness score of women ranged from 14 to 34 against the possible range of 0 to 44. The average cosmopolitaness score of women was 28.20 with a standard deviation of 10.16. Based of the findings women were classified into three categories which is presented in the Table 4.7.

**Table 4.7 Distribution of women according to their cosmopolitaness**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
Cosmopolitaness (Scale score)	0-44	14-34	Low (14-20)	14	15.56	28.20	10.16
			Medium (21-27)	68	75.56		
			High (28-34)	8	8.89		
			Total	90	100.00		

Data presented in the Table 4.7 show that majority (75.56 percent) of the respondents had medium cosmopolitaness; while 15.56 percent respondents had low cosmopolitaness and remaining 8.89 percent had high cosmopolitaness. The findings indicate that high portion of the rural women had medium cosmopolitaness i.e. they can move outside of their own house though they have social and religious restrictions.

#### 4.1.8 Annual family income

Family income of respondents ranged from Taka 26 to 130 thousand with an average of Taka 54.83 thousand and standard deviation 20.77. On the basis of scores obtained, the respondents were classified into three categories as shown in Table 4.8.

**Table 4.8 Distribution of rural women according to their Annual Family Income**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
			Medium (51-70)	62	68.89		
			High (>70)	3	3.33		
			Total	90	100		

Data presented in Table 4.8 reveal that 27.78 percent were found in low category which 68.89 and 3.33 percent were under medium and high income category respectively. Miah and Parveen (1993) found that women earned an average of Tk.18.16 thousand per annually from homestead farming. It indicates that the family income of the study area is medium to high. Because most of the family members are involved in different activities such as agriculture, business, labour, services etc.

#### 4.1.9 Extension media exposure

The extension media contact scores of the respondents could range from 0 to 40 while the observed scores ranged from 17 to 30. The average was 21.09 with a standard deviation of 2.75. On the basis of extension media exposure scores the respondents were categorized into three groups as shown in Table 4.9. The table 4.9 shows that the highest proportion (60 percent) of the respondents had medium extension contact and 40 percent having low extension contact.

**Table 4.9 Distribution of rural women according to their extension media exposure.**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
			Medium (21-24)	54	60.00		
			High (25-30)	0	0.00		
			Total	90	100.00		

Data presented in the table 4.9 also show that none of the respondents had high extension contact. The finding of the study indicates that rural women in the study area were not exposed to extension media exposure either through public extension services or through non government extension services. Practically there was very little extension programme for women in specific. Although the situation is now changing through the intervention of GOs and NGOs and more attention is needed.

#### 4.1.10 Credit received

Credit received score ranged from 4 - 24 thousands with an average 7.24 and standard deviation of 6.06. Based on the credit availability, the women were classified into three categories as shown in the Table 4.10.

**Table 4.10 Distribution of rural women according to their credit received**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
			Medium (10-17)	44	48.89		
			High (>17)	5	5.56		
			Total	90	100.00		

Data furnished in Table 4.9 indicate that majority of respondent women (48.89 percent) had medium credit received; while about equal proportion 45.56 percent had low credit received and the rest 5.56 percent had high credit received. In the study area it was also observed that few women are supported by high credit facility considered special criteria. The criteria which were identified during study for credit availability are mentioned below;

- i) Year of involvement in SUS i.e. the more year involvement the more credit availability
- ii) Deposited own savings i.e. the more savings deposit the more credit availability.
- iii) Previous loan repayment behaviour i.e. the more favourable repayment behaviour the more credit availability.



#### 4.1.11 Training exposure

Training exposure scores of the respondents ranged from 0 to 20. The mean was 8.82 with a standard deviation of 2.08. On the basis of training exposure the respondents were categorized in to three groups as shown in Table 4.11.

**Table 4.11 Distribution of rural women according to their training exposure**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
Training exposure (No. of days)	Unknown	0-20	Less (upto 6)	12	13.33	8.82	2.08
			Moderate (7-12)	73	81.11		
			High (>12)	5	5.56		
			Total	90	100.00		

Data contained in Table 4.11 indicate that the highest proportion (81.11 percent) of the respondents had medium training, while 13.33 percent had less training exposure and rest of the respondents 5.56 percent had high training exposure. Training exposure plays an important role in motivating the individuals in participating AMF project activities. The present study shows that there was not enough training opportunity for rural women because GOs and NGOs had taken specific training program. This is why, most of the respondents had medium training exposure. The training areas are covered by SUS are given here.

- i. Livestock rearing and management
- ii. Ecological farming methods
- iii. Local seed production and preservation
- iv. Homestead gardening
- v. Nursery
- vi. Aquaculture
- vii. Preparation of compost and liquid fertilizer
- viii. Natural pest management
- ix. Advocacy for food security and
- x. Advocacy for legal rights

#### 4.1.12 Organizational participation

The range of organizational participation scores was 4 to 24 against possible range of 0 to 54. The average organizational participation score of women was 11.96 with a standard deviation of 5.71. On the basis of their organizational participation scores the farmers were classified into three categories. The distribution and categories according to their organizational participation is presented in Table 4.12

**Table 4.12 Distribution of rural women according to their organizational participation**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
				Organizational participation (Scale score)	0-54		
			Moderate (11-20)	33	36.67		
			High (>20)	14	15.56		
			Total	90	100.00		

Data presented in Table 4.12 reveal that the majority (47.78 percent) of the respondents had low participation in organizations, 36.67 percent of them had moderate participation and only 15.56 percent had high organizational participation. An individual while comes in contact with organization, learns new ideas and new ways of doing thing. It is interesting to observe from earlier findings that while the farmers seem to be in a favorable position for adoption behavior in many characteristics like age, education, farm size and annual income than they are in a relatively worse position in organizational participation.

#### 4.2 Extent of participation in income generating activities of AMF project

The participation in AMF project activities scores of the respondents varied from 16 to 30 against the possible range score 0 to 36. The mean and standard deviation were 22.46 and 2.50 respectively. On the basis of their participation in AMF project activities scores, the respondents were classified into three categories, such as “low” (upto 9), medium (10 to 18) and “high” (>18). The distribution of the respondents is shown in Table 4.13

**Table 4.13 Distribution rural women according to their extent of participation in income generating activities of AMF project**

Characteristics (Measuring Unit)	Range		Category	Respondent		Mean	SD
	Possible	Observed		Number	Percentage		
Extent of participation in income generating activities of AMF project (Scale score)	0-36	16-30	Low (upto9)	0	0.00	22.46	2.50
			Medium (10-18)	18	20.00		
			High (>18)	72	80.00		
			Total	90	100.00		

Data contained in Table 4.2 indicate that majority (80 percent) of the respondent had high participation, while 20.00 percent had medium participation and none had high participation. This findings shows that large portion of the rural women had high to medium participation in income generating activities of AMF project of SUS due to high social and religious restrictions. This a disagreement result also found by Khatun (2005) that the extents of their participation (63 percent) among the respondents were low to medium.

#### **4.3 Relationship between selected characteristics of the rural women and their extent of participation in income generating activities of AMF Project**

In determining the relationship between rural women selected characteristics and their extent of participation in income generating activities of AMF project , the following null hypothesis was tested, “there is no relationship between eleven selected characteristics of rural women and their extent of participation in income generating activities of AMF project ”. Pearson’s Product Moment Correlation of coefficient (r) has been computed. The relationships of rural women selected characteristics and their extent of participation in income generating activities of AMF project have been shown in Table 4.14. However, a correlation matrix for all variables has been presented in *Appendix-B*.

**Table 4.14 Coefficient of correlation (r) between the respondents' selected characteristics and their Extent of participation in income generating activities of AMF project (N = 90)**

Dependent Variable	Independent variable (rural women selected characteristics)	Value of "r" with 88 df
Extent of participation in income generating activities of AMF project	Age	-0.041NS
	Education	0.214*
	Family size	-0.028 NS
	Family farm size	0.098 NS
	Farming Experience	0.265*
	Duration of Involvement with SUS	0.098 NS
	Cosmopolitaness	-0.027 NS
	Annual family income	0.190 NS
	Extension media exposure	0.017 NS
	Credit received	0.145 NS
	Training exposure	0.175 NS
	Organizational participation	0.143 NS

\* Significant at 0.05 level of probability (tabulated value = 0.210)

\*\* Significant at 0.01 level of probability (tabulated value = 0.280)

#### **4 .3.1 Age and Extent of participation in income generating activities of AMF project**

The correlation of coefficient between the age of the rural women and their extent of participation in income generating activities of AMF project was -0.041 as shown in Table 4.14. The computed score led to the following observations.

- a) The computed value of 'r' (-0.041) was found smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- b) The relationship between the two concerned variables was not significant.

Based on the above findings, the concerned null hypothesis was not rejected. Therefore, it could be concluded that age of the rural women had no significant relationship with their extent of participation in income generating activities of

AMF project. Similar finding was found by Islam (2005), Akhter (2005), Naher (2007) and Faroque (2007).

Age of an individual is one of the most important factors to participate in AMF project activities. To adopt the AMF technology youth are thought to more enthusiastic than that of older. However, all ages of women had option to be the member of SUS and participated AMF project activities.

#### **4.3.2 Education and extent of participation in income generating activities of AMF project**

The correlation of coefficient between education of women and their participation of benefit was 0.214 as shown in Table 4.14. The computed score led to the following observations.

The computed value of 'r' (0.214) was found greater than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.

a. The relationship between the two concerned variable was significant.

Based on the findings, the null hypothesis was rejected and hence, it may be concluded that personal education of the rural women had a significant positive relationship with their extent of participation in income generating activities of AMF project. The reason for this case may be, the educated people are interested to be involvement in AMF project activities taking credit from NGO. There was significant difference in the participation of rural women in homestead vegetable cultivation and non farm household activities because of their difference in education Khan (2002), Devi (2003) and Basak (2003).

#### **4.3.3 Family size and Extent of participation in income generating activities of AMF project**

The correlation of coefficient between family size of women and their extent of participation in income generating activities of AMF project was -0.028 as shown in Table 4.14. The computed score led to the following observations.

a) The computed value of 'r' (-0.028) was found to be smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability

- b) The relationship between the two concerned variables was not significant.
- c) The relationship showed a negative trend between the concerned variables.

Based on the above findings, the concern null hypothesis could not be rejected. Therefore, it could be concluded that family size of the rural women had no significant relationship with their extent of participation in income generating activities of AMF project. Similar finding was found by Begum (2004) found that family size of the rural women had no significant relationship with their poverty alleviation owing to participation in ASA activities.

#### **4.3.4 Family farm size and extent of participation in income generating activities of AMF project**

The correlation of coefficient between family farm size of women and their extent of participation in income generating activities of AMF project was 0.098 as shown in Table 4.14. The computed score led to the following observations.

- a) The computed value of 'r' (0.098) was found to be smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- b) The relationship between the two concerned variables was not significant.

Based on the above findings, the concern null hypothesis could not be rejected. Therefore, it could be concluded that family farm size of the rural women had no significant relationship with their extent of participation in income generating activities of AMF project. Begum (1998) observed that the farm area of the rural women had no significant relation with their poverty alleviation due to their participation in ASA development activities. The finding is interesting and it deserves some explanation. It is not true that all the SUS activities were connected with large family farm size. Those having negligible or very small family farm size did not necessarily depend on their family farm size for performing the SUS activities. This implies that family farm size of rural women does not play any significant role in their extent of participation in income generating activities of AMF project.

#### **4.3.5 Farming experience and extent of participation in income generating activities of AMF project**

The correlation of coefficient between farming experience of women and their extent of participation in income generating activities of AMF project was 0.262 as shown in Table 4.14. The computed score led to the following observations.

- a) The computed value of `r' (0.265\*) was found greater than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- b) The relationship between the two concerned variables was significant.

Based on the above findings, the concern null hypothesis was rejected. Therefore it could be concluded that farming experience of the rural women had a significant positive relationship with their extent of participation in income generating activities of AMF project. This finding indicates that women, who had more farming experience, had relatively higher level of extent of participation in income generating activities of AMF project of SUS.

#### **4.3.6 Duration of involvement with SUS and extent of participation in income generating activities of AMF project**

The correlation of coefficient between duration of involvement with SUS and their extent of participation in income generating activities of AMF project was 0.098 as shown in Table 4.14. The computed score led to the following observations

- a) The computed value of `r' (0.098) was found smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- b) The relationship between the two concerned variables was not significant.
- c) The relationship between the two concerned variable shows positive trend.

Based on the above findings, the concerned null hypothesis could not be rejected. Therefore, it could be concluded that duration of involvement with SUS had no significant relationship with their extent of participation in income generating activities of AMF project.

#### **4.3.7 Cosmopolitaness and extent of participation in income generating activities of AMF project**

The correlation of coefficient between cosmopolitaness of women and their extent of participation in income generating activities of AMF project was -0.027 as shown in Table 4.14. The computed score led to the following observations.

- a) The computed value of 'r' (-0.027) was found smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- b) The relationship between the two concerned variable was not significant.
- c) The relationship between to concern variable showed negative trend.

Based on the above findings, the concerned null hypothesis was not rejected. Therefore, it could be concluded that cosmopolitaness of the rural women had no significant relationship with their extent of participation in income generating activities of AMF project. Similar observation was obtained by Akanda (2004) and Anwar (2006) found that the cosmopolitaness of the rural youth had no relationship with their participation and interest in agricultural activities and income generating activities.

Cosmopolite people perceived earlier the benefits of AMF project than others who were not cosmopolite. This is also helpful in the formation of favorable participation of AMF project activities. But the non-significant relationship of the concerned variables of this study claims verification.

#### **4.3.8 Annual family income and extent of participation in income generating activities of AMF project**

The correlation of coefficient between annual family income of women and their extent of participation in income generating activities of AMF project was 0.190 as shown in Table 4.14. The computed score led to the following observations.

- a. The computed value of 'r' (0.190) was found smaller than that of the tabulated value ( $r = 0.210$ ) with 88 degrees of freedom at 0.05 level of probability.
- b. The relationship between the two concerned variables was not significant.



On the basis of this finding the null hypothesis could not be rejected and hence, the researcher concluded that the family income of the farmers had no relationship with their extent of participation in income generating activities of AMF project of AMF project activities of SUS.

#### **4.3.9 Extension media contact and extent of participation in income generating activities of AMF project**

The correlation of coefficient between extension media contact of women and their extent of participation in income generating activities of AMF project was 0.017 as shown in Table 4.14. The computed score led to the following observations.

- a) The computed value of 'r' (0.017) was found smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- b) The relationship between the two concerned variables shows non-significant relationship.
- c) The relationship between the two concerned variables shows positive trend.

On the basis of above observations, the concerned null hypothesis could not be rejected. This means that extension media exposure of the farmers had no significant relationship with their extent of participation in income generating activities of AMF project of AMF project activates of SUS.

#### **4.3.10 Organizational participation and extent of participation in income generating activities of AMF project**

The correlation of coefficient between organizational participation of women and their extent of participation in income generating activities of AMF project was 0.145 as shown in Table 4.14. The computed score led to the following observations.

- c) The computed value of 'r' (0.145) was found smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- d) The relationship between the two concerned variables was not significant.

Based on the above findings, the concerned null hypothesis could not be rejected. Therefore it could be concluded that organizational participation of the rural women had not significant positive relationship with their extent of participation in income generating activities of AMF project.

#### **4.3.11 Training exposure and extent of participation in income generating activities of AMF project**

The correlation of coefficient between training exposure of women and their extent of participation in income generating activities of AMF project was 0.143 as shown in Table 4.14. The computed score led to the following observations

- d) The computed value of  $r$  (0.143) was found smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- e) The relationship between the two concerned variables was not significant.
- f) The relationship between the two concerned variables shows positive trend.

Based on the above findings, the concerned null hypothesis could not be rejected. Therefore, it could be concluded that training exposure of the rural women had no significant relationship with their extent of participation in income generating activities of AMF project. Similar finding was obtained by Sharmin (2005). This happened because new knowledge and information obtained by women did not apply in performing AMF project activities.

#### **4.3.12 Credit received and extent of participation in income generating activities of AMF project**

The correlation of coefficient between credit received of women and their extent of participation in income generating activities of AMF project was 0.175 as shown in Table 4.14. The computed score led to the following observations.

- a) The computed value of 'r' (0.175) was found smaller than that of the tabulated value (0.210) with 88 degrees of freedom at 0.05 level of probability.
- b) The relationship between the two concerned variables was not significant.

Based on the above findings, the concerned null hypothesis could not be rejected. Therefore, it could be concluded that credit received by women had no significant relationship with their extent of participation in income generating activities of AMF project. To the constrain Akter (2007) found mention in her study that there was significant relationship between credit received and the participation in income generating activates. The finding indicates that the participation of women increased with the increase of credit availability.

## CHAPTER 5

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The title of the study was “Participation of rural women in income generating activities from Agricultural Model Farm (AMF) Project of Sabolomby Unnion Samity (SUS)”. The major objectives of the study were (i) to find out the level of participation of women farmer in agricultural model farm project activities of SUS. (ii) to determine the activities of Agricultural Model Farm Project of SUS in which woman of the study area participate (iii) to explore the relationship between women participation of AMF project of SUS and their selected characteristics. The selected characteristics are:

Two unions, namely Singher Bangla and Amtola under Netrokona sadar upazila of Netrokona district were the locale of the study. Data were collected by the researcher himself during 20 April 2008 to 20 may 2008 by using a pre-tested personal interview schedule

#### **5.1 Summary of the Findings**

##### **5.1.1 Selected characteristics of the rural women**

**Age:** Age of the respondent women ranged from 25 to 65 years with a mean of 33.68 years and standard deviation of 5.38. Based on their age the rural women were classified in to three categories as young, middle-aged and old.

**Education:** The level of education of the respondent women ranged from 0.5 to 13, the average being 2.09 with a standard deviation of 2.86. Out of 90 respondents, 91.11 percent had primary level education including can sign only, 6.67 percent had secondary level and remaining 2.22 percent had education of above secondary level.

**Family size:** The number of family members of the respondent women ranged from 3 to 10. The mean was 5.96 and standard deviation was 1.40. Based on the

family size score, the respondents were classified in to three categories small (up to 4), medium (5 to 6), large (>6) and majority (45.56 percent) of the rural women had large family size, while 41.11 percent of the respondents had medium family size and the remaining 13.33 percent had small family size.

**Family Farm size:** The farm size of the respondent women ranged from 0.6 to 2.50 hectare with an average of 1.23 hectare and standard deviation 0.43. The respondents were classified in to two categories on the basis of their farm holding, small (0.6 to 1.0) and medium (>1) while 90.00 percent of women belong to small farm category, and the rest 10.00 percent under medium farm category.

**Farming Experience:** The observed farming experience score of respondent women ranged from 5 to 13. The average farming experience score of women was 8.09 with a standard deviation of 1.91. Majority (84.44 percent) of the respondents had moderate farming experience; while 10.00 percent respondents had low farming experience and remaining 5.56 percent had high farming experience.

**Duration of Involvement with SUS:** The observed duration of involvement with SUS score of women ranged from 4 to 18. The average duration of involvement with SUS score of women was 9.24 with a standard deviation of 3.34. Majority (62.22 percent) of the respondents had moderate duration of involvement with SUS, while 22.22 percent respondents had high duration of involvement with SUS and remaining 15.56 percent had low duration of involvement with SUS.

**Cosmopolitaness** The observed cosmopolitaness score of women ranged from 14 to 34 against the possible range of 0 to 44. The average cosmopolitaness score of women was 28.20 with a standard deviation of 10.16. Majority (75.56 percent) of the respondents had moderate cosmopolitaness, while 15.56 percent respondents had low cosmopolitaness and remaining 8.89 percent had high cosmopolitaness.

**Annual family income:** Family income of respondents ranged from Taka 26 to 130 thousand with an average of Taka 54.83 thousand and standard deviation 20.77. It is revealed that 27.78 percent were found in low, 68.89 percent of the respondents' under medium and 3.33 percent in high income category.

**Extension media exposure:** The extension media contact scores of the respondents could range from 0 to 40 while the observed scores ranged from 17 to 30. The average was 21.09 with a standard deviation of 2.75. The highest proportion (60.00 percent) of the respondents had low extension media exposure and 40.00 percent having low extension contact.

**Credit received:** Credit received of the rural women ranged from 4-24 with an average 7.24 and standard deviation of 6.06. It was indicated that large portion (48.89 percent) of the respondents had medium credit received, while 45.56 percent had low credit availability and rest 5.56 percent had high credit received.

**Training exposure:** Training exposure scores of the respondents ranged from 0 to 20. The mean was 8.82 with a standard deviation of 2.08. The highest proportion (81.11 percent) of the respondents had medium training, while 13.33 percent had less training exposure and rest of the respondents 5.56 percent had high training exposure.

**Organizational participation:** The range of organizational participation scores was 4 to 24 against possible range of 0 to 54. The average organizational participation score of women was 11.96 with a standard deviation of 5.71. The majority (47.78 percent) of the respondents had low participation in organizations, 36.67 percent of them had moderate participation and only 15.56 percent had high organizational participation.

**Extent of participation in income generating activities of AMF project:** The participation in AMF project activities scores of the respondents varied from 16 to 30 against the possible range score 0 to 36. The mean and standard deviation were 22.46 and 2.50 respectively. The majority (80 percent) of the respondent had high participation, while 20.00 percent had medium participation and none had high participation.

### **5.1.2 Result of hypotheses testing**

In order to determine relationship between rural women Participation of women of AMF project activities and their selected characteristics, Pearson's Product Moment Correlation of coefficient (r) was calculated. Among the eleven selected characteristics of the rural women, organizational participation and extent of participation in income generating activities of AMF project had significant positive relationship. Personal education of the respondents had significant negative relationship. The rest of the characteristics viz. age, family size, family farm size, farm experience, duration of involvement with SUS, cosmopolitaness, training exposure, annual family income, credit received and extension media exposure did not show any significant relationship with their Participation of women.

### **5.2 Conclusion**

The researcher was influenced for drawing several conclusions by the findings of the present study and logical interpretation of other relevant facts.

1. Findings show that Out of 90 respondents, 91.11 percent had primary level education, 6.67 percent had secondary level and remaining 2.22 percent had education of above secondary level. It was also found that education of the rural women had significant positive relationship with the participation of income generating activities of AMF project activities. The activities which are taken by AMF project demand physical forces. But educated people keep them away from it. Thus it can be concluded that educated people do not want to involve them in AMF project activities. Therefore, their participation is not so favorable.
2. The largest part a 5.56 percent had high training exposure. Training is the process improving knowledge, increasing skill and changing attitude. So, training exposure is the best way to perceive new things. In the present study it was found that training exposure of the rural women had a non-insignificant relationship with their participation. Therefore, it can be concluded for the present study that people did not apply training outcomes in AMF project activities.

3. The highest portion (47.78 percent) of the rural women had low organizational participation. However, organizational participation of the rural women showed a non-significant positive relationship with the participation of benefits. Organizational participation can help rural women to involve in AMF project activities as well as other development activities taken by GOs and NGOs. Thus it can be concluded that organizational participation can bring better result for increasing participation of in income generating activities of AMF project activities of SUS.
4. The largest portion (84.44 percent) of the rural women had medium farming experience. Further, extent of participation of the rural women in AMF project activities showed significant positive relationship with the farming experience. Participation in any activities can help to perceive its out come. Thus, it can be concluded that participation in AMF activities will faster the rural women to perceive high experience.
5. Age, family size, family farm size, cosmopolitaness, annual family income, duration of involvement with SUS and credit received of rural women were not significantly related with their participation of income generating activities from AMF project of SUS. Thus it may be concluded that at least for the present study, these characteristics of rural women did not play any significant role in their participation of AMF project activities of SUS.

### **5.3 Recommendations**

The present study was undertaken to know the level of participation of rural women in AMF project activities and their Participation of in income generating activities from it. Besides, attempts were made to determine the factors causing hindrance in the involvement of AMF project activities. Considering the above facts and findings of the study some recommendations were put forward. Recommendations have been divided into two groups (a) Recommendations for policy implication and (b) Recommendations for further research.

#### **5.3.1 Recommendations for policy implication**

Based on field observation, findings and conclusions of the study the following recommendations have been made for policy implication.



1. Participation of income generating activities from AMP project of rural women largely depended on their several characteristics *viz.* education, training exposure, credit availability, extension media exposure and participation in AMF project activities. Among these characteristics, participation in AMF activities was most important to perceive benefits. Therefore, SUS and other development agencies should focus on the above dimensions for the increment of their involvement in AMF project activities in order to increase women participation of income generating activities from AMF project activities of SUS.
2. Education is the backbone for all development activities. The study reveals that majority of the rural women were illiterate and had primary level education. At the same time, it was also observed that their family members were illiterate. Firstly, illiterate women were unable to perceive benefits. Secondly, illiterate family members created obstacles to participate in AMF project activities. So, proper strategies such as non-formal education program should be formulated to create scope for educating women and to motivate other family members for involving them in AMF project activities. At the same time, SUS and other development agencies should provide education loan for their children.
3. Training plays a vital role for improving knowledge, changing attitude and increasing skill. So, training should be provided according to their needs. After the training, loan should be provided according to their needs. Besides, close supervision is essential to make effective use of the credit.
4. Extension media exposure increased rural women knowledge in different aspects of agriculture. But it was found that majority of the beneficiaries had low extension media exposure. Therefore, proper policies like (parallel exposure of different information sources, parallel use of different information sources) should be formulated to provide more facilities to the rural women to increase their participation in AMF project activities.
5. Organizational participation motivated rural women to participate in the AMF project activities. The findings of the study reveal that majority of the rural women had low organizational participation. Therefore, basic needs oriented (food, education and health); group management and leadership development

programs should be formulated so that rural women are influenced by themselves to participate in the organizational activities.

6. In the study it was found that most of the farm families were in small farm size category and had low annual income. Most of them did not have any work during off season. So, strategies should be taken for creating new working facilities for the respondent women and her other household members as if they can be involved in those activities during off season. The following steps can be taken in order to create new working facilities:
  - i) Creating scope for small scale business like shop.
  - ii) Setting up small cottage industries considering locally available raw materials.
  - iii) The government can lease out of *khas* lands, rivers and ponds to the marginal farmers for their involvement in income generating activities like fisheries, social forestry, poultry and dairy farming.
  - iv) Giving rickshaws to the marginal farmers.

### **5.3.2 Recommendations for further research**

A single research work is very inadequate to have an in-depth understanding of the participation of in income generating activities of rural women from AMF project activities. Further studies should be undertaken covering more dimensions of the same issue. Therefore, the following suggestions are made for further research works:

1. This study was confined in only one upazila namely Netrokona Sadar upazila. Similar studies may be conducted in other parts of the country to verify the findings and to get clear idea about participation of in income generating activities of rural women from AMF project.
2. Participation of in income generating activities from AMF project activities may be determined by using other methods of measurement in future research studies.
3. The researcher investigated the relationships of 12 selected characteristics of the rural women with their participation of in income generating activities from AMF projects of SUS. Therefore, it is recommended that future studies may be conducted with other characteristics of the respondents.

4. In the present study age, family size, family farm size, cosmopolitaness, annual family income, extension media exposure, credit received and training exposure of rural women had no significant relationship with their participation of income generating activities. Hence, further studies should be undertaken to verify such relationships between the concerned variables.
5. Research should also be undertaken to identify the other factors which hindrance to favorable participation of in income generating activities of rural women from the AMF project.
6. In the present study, AMF project activities of SUS have been investigated but there are many other NGOs and GOs working with farmers of Bangladesh. Those organizations could be included in the further research works.

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**APPENDIX A**

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**An Interview Schedule for a Study of**

**“Participation of Rural Women in Income Generating Activities from Agricultural Model Farm Project of Sabalumby Unnyan Samity (SUS)”**

Sample No.:

Name of the Respondent:.....

Husband’s name:.....

Village..... Union.....

Upazila..... District.....

(Please answer the following questions)

**1. Age**

How old are you? .....years

**2. Educational qualification**

(a) I can not read or write -----

(b) I can sign only -----

(c) I read up to class -----

(d) Others (specify) -----

**3. Family size**

How many members are there in your family including you?.....members

**4. Farm size**

Please provide information of your land according to tenural status:

SL. No.	Type of land and ownership	Land area		
		Local unit	Acre	Hectare
1.	Homestead area including ponds and garden			
2.	Own land under own cultivation			
3.	Own land given to others on barga			
4.	Land taken lease from others			
5.	Others			

**5. Framing Experience**

How long farming experience do you have?.....years

**6. Duration of involvement with SUS**

How long times have you been involved with SUS?.....years

## 7. Cosmopolitaness:

Please mention your visit to the places outside of your village.

Sl. No	Place of visit	Frequency of visit				
		Frequently	Occasionally	Often	Rarely	Not at all
		>8 times/ year	6-8times/ year	3-5 times/ year	1-2 times/ year	0 time/ year
1.	Friends & Relatives in other village					
2.	Demonstration plot in own village					
3.	Demonstration plot in other village					
4.	Demonstration plot in other union					
5.	Upazila Agriculture office					
7.	Agricultural fair held in Upazilla					
8.	Agricultural fair held in district					
9.	Upazilla					
10.	District					
11.	Capital city					

## 8. Annual family income

Please mention your annual income from the following different sources (last year)

Sources of Income				Amount of Taka
<b>A. Agricultural</b>				
	Area	Production	Income	
1. Aus				
2. Amam				
3. Boro				
4. Jute				
5. Wheat				
6. Potato				
7. Pulses				
8. Oils				
9. Vegetables				
10. Spices&condiments				
11. Fruits				
<b>B. Livestock (no.)</b>				
1. Milk				
2. Meat				
<b>C. Poultry(no.)</b>				
1. Egg				
2. Meat				



<b>D. Fisheries</b>				
<b>E. Business</b>				
<b>F. Services</b>				
<b>G. Others(Specify)</b>				
<b>Grand Total</b>				

### 9. Extension media Exposure

SL No	Information sources	Extent of use				
		Regularly	Often	Rarely	Occasionall y	Not at al
		>8 times/ year	6-8times/ year	3-5 times/ye ar	1-2 times/ year	0 time/ year
1	AMF project staff					
2	Sub Assistant Agricultural Officer(SAAO)					
3	Agricultural Extension Officer(AEO)					
4	Upazila Agricultural Officer(UAO)					
5	Local leader					
6	Demonstration					
7	News paper					
8	NGOs					
9	Radio programme about Agricultural					
10	TV programme about Agricultural					

Please mention the extent of your media exposure in receiving various information:

### 10. Organizational Participation:

Please indicate the nature and duration of your participation in the following Organizations

SL. No.	Name of the organization	No participation	Nature and duration of participation		
			Ordinary member (year)	Executive committee member (year)	Executive committee President/ secretary (year)
1.	Sabalumby Unnyan Samity(SUS)				
2.	Others NGOs.				
3.	Union Parishad				
4.	School Committee				
5.	Cooperative Society				

### 11. Credit Received

a) Did you receive credit for crop production last years?

.....Yes/.....No

b) How much of the credit received spent for crop production?.....

## 12. Training Exposure

Have you ever attended in any training program (formal training)?

.....Yes/.....No

If received any training please mention the following information.

SL No	Name of the training course	Training Organization	Duration of training (No. of days)
1			
2			
3			
4			

## 13. Extent of Participation in income generating activities of AMF Project:

Please mention your extent of involvement in AMF project activities

Sl. No	Activities	Pattern of Participation				
		Regularly	Occasionally	Often	Rarely	Not at all
1.	Rice cultivation					
2.	Vegetable cultivation through organic managements					
3.	Collection and preservation of local seed					
4.	Livestock rearing					
5.	Fish culture					
6.	IPM/Natural Pest Management(NPM)					
7.	Preparation of compost					
8.	Cultivation of medicinal plants					
9.	Cultivation of fruit plants					

Thanks for your kind co-operation

.....  
Signature of Interviewee  
Date:

## Appendix B

### Correlation Matrix of the dependent and independent variables (N=90)

	Age	Education	Family Size	Farm Size	Farming Experience	Duration of Involvement with SUS	Cosmopolitanism	Family Income	Extension media Exposure
Age	1								
Education	-0.245*	1							
Family Size	0.103	-0.063	1						
Farm Size	0.025	0.114	0.239*	1					
Farming Experience	0.086	0.043	-0.049	0.086	1				
Duration of Involvement with SUS	0.293**	-0.288**	-0.137	-0.201	0.697**	1			
Cosmopolitanism	0.035	0.013	0.008	-0.109	-0.360**	-0.286**	1		
Family Income	0.094	0.071	0.368**	0.734**	-0.043	-0.258*	0.029	1	
Extension media Exposure	0.054	0.078	-0.244*	-0.226	0.073	0.148	-0.050	-0.214*	1
Organizational Participation	0.252*	-0.018	0.052	-0.112	0.570**	0.639**	-0.187	0.002	0.118
Credit Received	0.079	0.177	0.152	0.434**	0.047	-0.140	-0.067	0.515**	0.001
Training Exposure	0.282**	-0.023	0.021	0.119	0.168	0.233*	-0.009	0.126	-0.003
Extent of Participation in AFM Project Activities	-0.041	0.214*	-0.028	0.098	0.265*	0.098	-0.027	0.190	0.017

\* Correlation is significant at 0.05 level of probability (Table value = 0.210 with 88 df)

\*\* Correlation is significant at 0.01 level of probability (Table value = 0.280 with 88 df)