

**WOMEN PARTICIPATION IN INCOME GENERATING ACTIVITIES AT  
DAULATKHAN UPAZILLA UNDER BHOLA DISTRICT**

**BY**

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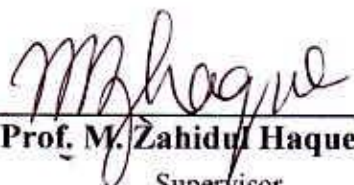
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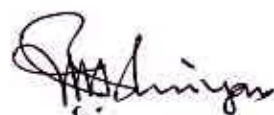


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**CERTIFICATE**

This is to certify that the thesis entitled **“Women Participation in Income Generating Activities at Daulatkhan Upazilla under Bhola District”** 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 **Md. Tariqul Islam Mamun**, Registration No. **07-2644** under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

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

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**DEDICATED  
TO  
MY BELOVED PARENTS**



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**The Author**

## **WOMEN PARTICIPATION IN INCOME GENERATING ACTIVITIES AT DAULATKHAN UPAZILLA UNDER BHOLA DISTRICT**

### **ABSTRACT**

The study was conducted in the Daulatkhan Upazila under Bhola District with the main objective to assess the women participation in income generating activities. Daulatkhan upazila consists of nine unions among them Saidpur, Bhabanipur and Char Khalifa union were selected purposively as the locale of the study area. A list of 1017 women from the selected unions adjacent to the Children and Women Affairs Officer of this locality was collected. Ten (10) percent of the populations were randomly selected as the sample of the study by using random sampling method. Thus, 102 women constituted the sample of the study. A structured interview schedule was developed based on objectives of the study for collecting information. The researcher himself collected data through personal contact. The independent variables were: age, level of education, family size, farm size, annual family income, organizational participation, cosmopolitaness, contact with development workers, training exposure, credit received and problems faced in income generating activities, while the dependent variable was participation in income generating activities. About half (46.1 percent) of the respondents derived medium level participation followed by 43.1 percent low level participation and only 10.8 percent were high level participation in income generation activities. It means that an overwhelming majority (89.2 percent) of the respondent women had medium to low level participation in income generating activities. Level of education, annual family income, organizational participation, cosmopolitaness, contact with development workers and training exposure had significant positive relationships with women participation in income generating activities but problem faced in income generating activities had significant negative relationship.

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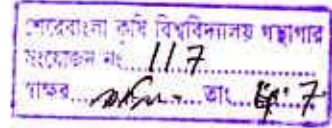
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## CHAPTER 1

### INTRODUCTION



#### 1.1 General Background

Bangladesh is predominantly an agrarian country having population of 140.9 million and women constitute roughly half of the population where male female ratio is 105:100 (BBS, 2008). Traditionally Bangladesh is a patriarchal country. In this male dominated society, male is the head of the family and he enjoys full freedom to do anything. Usually women have less freedom: “her father has authority over her childhood, her husband has authority over her youth and in the old age her son has authority over her”. Under this circumstance women obviously led a secluded life indoor. Without effective participation of women in development activities, it is impossible to ensure overall development of the country. But women in Bangladeshi villages have few rights, little choice about the course of their lives, and almost no opportunity to change their condition. They are often deserted when their husband cannot find income in the villages and move away to pursue work (Lovell, 1991).

There is an urgent need to empower women with participation in income generating activities (IGAs) to accomplish their overall development and the development of the society. For women participation, at first we have to raise their level of ability regarding income generating activities. The domestic activities performed by women are seldom being considered as generating income for the household. Due to the lack of an independent income or employment women cannot acquire assets themselves. Thus land which is the most coveted and valuable asset, is owned by men and by virtue of this ownership they lord it over the women and dominate in the society and community (Islam, 2000). But women play significant and crucial role in the development of family and society (Samanta, 2005). Women play an important role in agricultural production, animal husbandry and other activities like as storage, marketing of produce, food

processing, fishing etc. Besides they spend 10 to 12 hours per day doing household activities (Devi, 1998).

Economic independence of women will create long cherished social changes and prove necessary for them to face injustice and discrimination (Ray, 1999). Available data on health, nutrition, education and economic performance indicated that the status of women in Bangladesh remains considerably lower to that of men. In custom and practice women remain subordinate to men in almost all stages of their lives. Most women's lives remain continued on their traditional roles and they had limited access to markets, productive services, education, health care and local government. These lacks of opportunities contribute to high fertility pattern which diminish family well being, and frustrate educational and other national development goals (Anon., 2004).

Improved food and nutrition together with basic services such as health and education not only directly improve the physical well being and the quality of life of the rural poor, but can also directly raise their ability to contribute to national economy. For total development of the society, emphasis is given to the rural women than their counterpart (Samanta, 2005). Women get less pay than men and face difficulties in owning their own property or land. This is reflected in health and social indicators that are honestly appealing. Bangladesh's maternal mortality rate is still one of the highest in the world: every year 320 women per every 1,000,000 die in childbirth.

Women's property rights increase women's status and bargaining power within the household and community. Secure land rights provide women with greater incentives to adopt sustainable farming practices and invest in their land. Although women work in the agricultural lands in the countryside, women in most developing countries do not have secure rights to the land they work. Participation of women in the economic and social fields constitutes one of the fundamental objectives of all development efforts in the region (Anon., 2008). It is a well established fact that in a patriarchal society like Bangladesh, women are ascribed a lower status than men who have the sovereign power to control

households and society as a whole, while women are often secluded in their homes (Balk, 1997).

UNDP human development reports indicate that Bangladesh attain rank 137 among 177 countries in its Gender Development Index; and 67<sup>th</sup> of 75 countries in the Gender Empowerment Measure (UNDP, 2006). It comes as no surprise that Bangladesh's Poverty Reduction Strategy states that "among all the inequalities in Bangladesh, discrimination against women reflects the most blatant form of injustice". Poverty alleviation benefits women because of higher levels of poverty of women and women's greater responsibility for family welfare. Women's individual economic participation is believed to be insignificant to wider social, political and legal empowerment and contributes to building social capital through developing and stranding women's network (Mahmud, 2002). No development objectives can be achieved without making women self reliant.

Article 10 and 28 and 28(2) of the constitution of the peoples Republic of Bangladesh reveals "step shall be taken to ensure participation of women in all sphere of national life and women shall have equal rights with men in all spheres of the state and public life" consecutively (The Constitution of the Peoples Republic of Bangladesh, 1996). The overall development of the country can not take place without massive involvement of women in income generating activities (IGAs). Empirical evidence showed that the women have little access to participation in income generating opportunities, leadership and decision making role in household. Along with these social customs, tradition and norms and other handicaps like literacy. Lack of institutional supports and skilled training has kept down women involvement in the main stream of rural development process (Islam, 2002).

Considering the above facts and findings the investigator became interested to find out the relationship between participation of rural women in various income generating activities with some characteristics of the rural women in three unions named Shaidpur, Bhabanipur and Char Khalifa and unions in Daulatkhan upazila under Bhola district.

## **1.2 Statement of Problem**

Active participation of women is of crucial importance for the success of any development program. Their participation in development activities is expected to affect their lives in personal, social and economic dimensions by increasing their level of knowledge, skills and awareness of wider environment and by modifying their bargaining 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 their participation.

Women are the disadvantageous class of the society. This is possible by augmenting their level of knowledge, skill and awareness of wider environment and by modifying their bargaining power in a variety of relationships and also by changing the way in which people perceived women and in which women think about themselves with reference to the impact of their participation.

Women perform most in the household activities. In addition to their regular non agricultural activities such as sewing, money lending with interest, grocery, fishing, etc, rural women are also involved in many agricultural production activities by following homestead farming activities. The main purpose of the study is to determine and describe the extent of participation of women in income generating activities. However, the study attempt to find out the answer to the following questions-

- i. To what extent women participate in IGAs?
- ii. What motivational and attitudinal factors influenced them to participate in different IGAs?
- iii. To what extent the economic and other benefits being received by the women participation in different income generating activities.
- iv. What extent did the respondents participate in poverty alleviation through different IGAs?

### 1.3 Objectives of the study

The main focus of the study was to assess the women participation in income generating activities (IGAs). The following specific objectives were undertaken for the present study-

- 1) To assess the extent of participation of women in income generating activities.
- 2) To determine and describe the selected characteristics of women. The selected characteristics were:
  - a) Age
  - b) Level of education
  - c) Family size
  - d) Farm size
  - e) Annual family income
  - f) Organization participation
  - g) Cosmopolitaness
  - h) Contact with development workers
  - i) Training exposure
  - j) Credit received
  - k) Problems faced in income generating activities
- 3) To explore the relationships between the selected characteristics of the respondents women and their participation in income generating activities. The income generating activities (IGAs) of the respondent women were crop production, livestock rearing, goat rearing poultry rearing, duck rearing, fish culture, grocery shop, fuel wood sale collection of shrimp fingerlings, sewing activities, nut marketing, service, nursery management, tree plantation, other business activities.



#### **1.4 Justification of the study**

Rural women are still neglected in our country but it is true that national development is not possible without empowering themselves because 48.78 percent of the total populations are women and 79 percent of them are living in rural areas (BBS, 2008). In order to improve the position of women in society, first of all their contributions to different sub-sectors are to be recognized. Needless to mention again and again that rural women are directly participate in various income generating activities in the sub-sector of crop, livestock, fisheries, forestry etc. They look after the livestock and involve in post crop-harvest activities at home while male family members working in the field. The vegetable cultivation in the rural families, homestead gardening, poultry rearing, goat rearing, small business as an income generating activities are mostly undertaken by these women.

So, we cannot expect fluent and balanced socio-economic growth and development of the country without women participation in income generating activities. In order to improve the position of women in society a large number of NGOs and GOs are working in the country to involve the women in income generating activities. They work at grass root level for human right and to ensure the participation of rural women's in income generating activities. Different activities are also taken by the government to increase the position of women. There was very limited previous research work that attempted to find out the extent of women participation income generating activities. Therefore, the study "Women participation in income generating activities" has been undertaken.

#### **1.5 Scope of the study**

The present study was undertaken and structurally designed to have an understanding extent of women participation in income generating activities (IGAs) and explores its relationship with the selected characteristics of rural women.

The necessary relevant information of the study would be collected from Daulatkhan Upazila under Bhola District. However, the findings may also be applicable to other areas of Bangladesh where socio-economic, cultural, psychological and economic situation do not differ much than those of the study area. The findings may also be helpful to the policy makers to improve strategies of action for introducing different income generating activities for the rural women for the development of their socio-economic condition. Lastly, it is assumed that recommendation of this study will be helpful for researchers, NGOs, Government planners and policy makers to take different activities related to income of rural women that helps to participating them and minimizing the discrimination between men and women and bringing women in the mainstream of development.

#### **1.6 Limitations of the study**

In order to make the study manageable and meaningful from the view point of research, it was necessary to impose some limitations as stated below:

- i) The study was confined in Daulatkhan Upazila under Bhola District.
- ii) There were many women in the study areas, but a small number of selected women were brought under the study.
- iii) Characteristics of the women are many and varied, but time, money and other resources did not permit the researcher to include all of them in the study. Hence, only 11 characteristics of the women were selected for investigation in this study.
- iv) Participation is a relative concept and it also regulates by other factors and time. So, it is very difficult to measure extent of participation on the basis of the present engagement in different income generating activities of the rural women.



### **1.7 Assumptions of the study**

An assumption is the possibility that an apparent reality or principle is true in the light of the available evidence. The researcher had the following assumptions in mind while undertaking this study.

- i. The respondents selected for the study were capable to provide proper responses to the questions included in the interview schedule.
- ii. The responses furnished by the respondents were reliable. They expressed the truth about their participation in income generating activities.
- iii. Views and opinions furnished by the respondents women were the representative of the whole population of the study area.
- iv. The researcher who acted as interviewer was well adjusted to the social and cultural environment of the study area. Hence the respondents furnished their correct opinions without hesitation.

### **1.8 Statement of Hypothesis**

As defined by Goode and Hatt (1952) "A hypothesis is a proposition which can be put to a test to determine its validity. It may seem contrary to, or in accordance with common sense. It may prove to be correct or incorrect. In any event, however, it leads to an empirical test".

The hypothesis is formulated to explore the relationship between the dependent and independent variables. The major research hypothesis for the study is: "there is a relationship between the women participation in income generating activities and the selected characteristics including age, level of education, family size, farm size, annual family income, organizational participation, cosmopolitaness, contact with development workers, training exposure, credit received and problems faced in income generating activities". The research hypothesis was converted into null form for the purpose of statistical testing. The major null hypothesis states that "There is no relationship between the participation in income generating activities and the selected characteristics of the women".

## 1.9 Definition of Terms

**Respondents:** People who have answered the questions to an interviewer for a social survey are known as respondents.

**Assumption:** An assumption is “The supposition that an apparent fact or principle is true in the light of the available evidence” (Goode and Hatt, 1952).

**Variable:** A general indication in statistical research of characteristic that occurs in a number of individuals, objects, groups etc. and that can take on various values, for example the age of an individual.

**Hypothesis:** Defined by Goode and Hatt (1952), a proposition this can be put to “a test to determine its validity”. It may be true or false, it may seem contrary to or in accord with common sense. However, it leads to an empirical test.

**Attitude:** Attitude is a hypothetical construct that represents an individual's like or dislike for an item. Attitudes are positive, negative or neutral views of an "attitude object": i.e. a person, behavior or event. People can also be "ambivalent" towards a target, meaning that they simultaneously possess a positive and a negative bias towards the attitude in question.

**Mobility:** It referred to the woman's exposure outside her own social environment, her exposure to the nearest villages, own union or municipal, and own Upazila other Upazila, districts or places of social and agricultural importance.

**Freedom in decision making:** Freedom in decision making refers to the value of decision of women in different family related activities such as children education, marriage, participation in cultural and development activities etc.

**Income Generating Activities:** Income generating activities refer to those activities through which a woman earns directly by producing, making and selling different products.

**Credit received:** It referred to the total amount of taka that a respondent had received from different organization as credit.

**Social participation:** Social participation refers to the extent of participation of individuals in different social activities.

**Participation in farm activities:** Participation of farm activities refers the nature and extent of participation of women in different farm related activities.

**Age:** Age of a respondent defined as the span of her life and is operationally measured by the number of years from her birth to the time of interviewing.

**Education:** Education referred to the development of desirable knowledge, skill, attitudes, etc. of an individual through the experiences of reading, writing, observation and related matters. In this study education was meant for women education.

**Family size:** It referred to actual number of permanent members in a subject's family who live in a fixed dwelling unit and eat from the same cooking arrangement.

**Farm size:** Farm size referred to the total area on which a women's family carries on farming operations, the area being estimated in terms of full benefit to the family.

**Annual family income:** The term organization is defined as an association of persons, which has a name, a regular set of officers, and at least one face-to-face meeting in a year. Organizational participation of an individual refers to her participation in various organizations as ordinary member, executive committee member or executive officer with a specific period of time.

**Organizational participation:** The term organization is defined as an association of persons, which has a name, a regular set of officers, and at least one face-to-face meeting in a year. Organizational participation of an individual refers to her

participation in various organizations as ordinary member, executive committee member or executive officer with a specific period of time.

**Cosmopolitaness:** Cosmopolitaness of a respondent is measured by computing a Cosmopolitaness score. The Cosmopolitaness score is assigned on the basis of different places and frequency of her visit external to and outside her own social system.

**Contact with development workers:** It is referred to the respondents becoming accessible to the influence of different information media through different development worker.

**Training exposure:** Training exposure referred to organized instruction aimed at improving knowledge, skill and attitude of an individual so that one can perform his/her functions more effectively. Training experience referred to number of days the respondents received training in different aspects of agriculture.

**Problems faced in income generating activities:** Problem means any difficult situation which requires some actions to minimize the gap between “what ought to be” and “what is”. The term problem faced refers to different problems faced by the women in income generating activities. Problem faced indicates the argument, altercation or conflict between different natures of problems.

**Participation in income generating activities:** Participation in income generating activities refers to engage any type of income generating activities through which a woman earns directly by producing, making and selling different products.



## CHAPTER 2

### REVIEW OF LITERATURE

This chapter deals with the review of past research works that relates to this investigation directly or indirectly. Review of literatures expediently to the major objectives of this study is presented in this chapter. Despite frantic search, the researcher found only a few studies are available all of them are indirectly related. The researcher came across with some expert opinions and has tried his best to collect needful information through searching relevant studies, journals, periodicals, bulletins, leaflets, internet, thesis paper etc. These enhanced the researcher's knowledge for better and clear understanding of the present study. This chapter has been presented in three sections as follows:

**Section 1:** Conceptual issues about participation

**Section 2:** Relationship between selected characteristics of rural women and their participation

**Section 3:** Conceptual framework of the study

#### 2.1 Conceptual issues about participation

Selsznick (1957) was of the opinion that participation depends on how members' see an organization and on the extent of members' understanding of the objectives as well as the principles of organizations.

Uphoff *et al.* (1979) described participation as 'the involvement of a significant number of persons in situations, which enhance their well-beings, e.g. their income, security and self esteem'.

Some of the common meanings attached to participation are given below:

'Participation' is a word, which is frequently used in development. It has many different meanings. Various studies, project documents and manuals have interpreted participation in different ways (FAO, 1989) as follows:



- Participation is the voluntary contribution by people in projects, but without their taking part in decision making.
- Participation is the sensitization of people to increase their receptivity and ability to respond to development projects.
- Participation is an active process, meaning that the person or group in question takes initiatives and asserts his autonomy to do so.
- Participation is the fostering of a dialogue between the local people and the project preparation, implementation, monitoring and evaluation staff in order to obtain information on the local context and on social impacts.
- Participation is the voluntary involvement of people in self-determined change.
- Participation is involvement in people's development of themselves, their lives, and their environment.

An overall review of the literature on participation as well as the ways in which participation is operationalized in different development interventions reveals that participation is conceptualized and understood differently. The manner in which participation can be enlisted also varies.

## **2.2 Relationship between Selected Characteristics of Rural Women and their participation**

Participation can be categorized and measured in different ways. It can vary according to the respondents socio-economic profiles such as age, marital status, educational attainment, family size, farm size, annual gross income, annual family expenditure; motivational factors such as cosmopolitaness, contact with different development agents, decision making authority, knowledge about various development disciplines; and attitudinal factors such as husbands' attitude towards wives' participation and respondents.

### **2.2.1 Age and participation**

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

Shah (1994) observed that the age of rural women was negatively related to increase the extent of their participation in homestead vegetable production in farming system of Bangladesh. Younger women participated more than older women.

Islam *et al.* (1996) studied women's participation in some agricultural IGAs like vegetable production, poultry rearing, livestock rearing and fish culture. The findings indicated that age of the participating women had no significant relationship with their extent of participation.

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.

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

Akter (2000) in her study found that there was no relationship between age of the women in RDRS clientele group and their participation in decision making role in the family with regard to development activities.

Chowdhury (2000) in his study observed that age of the rural women had insignificant relationship with their opinion for participation in development activities.

Nahar (2000) in her study found that there was no relationship between age and participation in homestead vegetable cultivation, post harvest practices, poultry

rearing and goat rearing while the activities in vegetable cultivation are mostly participated by the younger housewives.

### **2.2.2 Education and participation**

Khan (1983) found that the rural women's educational level had positive relationship with their participation in community activities and income generating projects in Bangladesh.

Akanda (1994) stated that education of rural women had significant positive relationship with their participation in the cultivation of fruit trees. However, there was a positive relationship between education and homestead vegetable cultivation and that of non-farm activities but was not significant statistically.

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 problems faced.

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 the participation in ASA activities

Akter (2000) in his study observed that education of the women had significant positive correlation with their participation in decision making role in the family with regard to development activities.

Alam (2001) in his study found education had no significant relationship with their participation in agriculture, fisheries and poultry programmes in BAUEC.

Chowdhury (2000) in his study found that education of the rural women had significant positive relationship with their opinion for participation in development activities.



### **2.2.3 Family size and participation**

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

Akanda (1994) mentioned that family size of the rural women had significant positive relationship with their participation in the plantation of fruit trees. The relationship with homestead vegetable cultivation and non-farm household activities was not significant

Rahman (1995) observed that family size of the imams had significant positive relationship with their participation in 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.

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

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

Chowdhury (2000) in his study found that family size of the rural women had no significant relationship with their opinion for participation in development activities.

Islam (2002) found that family size of the women had non significant relationship with their involvement in income generation activities.

#### **2.2.4 Annual income and participation**

Akhter (1989) found that household women having high income spent more time in personal activities like recreation, socio-cultural involvement and such other activities. Thus they spent little time either in agricultural or non-agricultural activities.

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

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

Parven (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.

Nahar (2000) in her study found that family income had negative relationship with their participation in homestead vegetable cultivation, post harvest practices, poultry rearing and goat rearing.

Islam (2002) in his study found that family income of the women had significant positive relationship with their involvement in income generating activities and decision making in household and health care.

#### **2.2.5 Organizational participation**

Noor (1995) observed in his study that there was positive and significant relationship between organizational participation of the farmers and attitude towards the cultivation of HYV of potato.

Shardar (1996) conducted a study on 'interest and participation of rural youth in improved winter vegetable cultivation' and found that the concerned variables were not related to each other. But, Khan (1993), Karim (1993), Hossain (1991), and Anwar (1972) in their studies on youth and farmers found the organizational participation had positive correlation with adoption of new agricultural technology.

Islam and Kashem (1997) observed organizational participation of farmers had negative relationship with their attitude towards agrochemicals.

Saha (1997) and Shardar (1996) in their respective studies in Mymensingh and Sirajgonj found that the organizational participation of rural youth had significant positive relationship with their participation in different agricultural IGAs. However, Saha (1997) did not find any relationship between the organizational participation of the rural youth and their problem confrontation in employment opportunity.

Nurzaman (2000) observed in his study that organizational participation of the farmers Field School (FFS) farmers had positive correlation with their attitude towards IPM.

### **2.2.6 Cosmopolitanism and participation**

Akanda (1994) found that non-localite 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 program participation on an average of women's status indication such as control; over household resources, mobility, autonomy, attitude and aspirations, the study estimated program impact on the measured of gender inequality.

Anwar (1994) found that the cosmopolitaness of the rural youth had no relationship with their participation and interest in agricultural activities and income generation activities. But he found that cosmopolitaness had significant positive relationship with the problem of the youth in job opportunities.

### **2.2.7 Training exposure and participation**

Training for development focuses on training not primarily as a source of new information, but rather as a means for changing behavior for lasting improvement on the job (Lynton and Pareek, 1990).

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.

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

### **2.2.8 Credit received and participation**

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

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

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

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

### **2.2.9 Participation in income generating activities**

Hussain (1988) found that women in households were economically active and had a great contribution in various activities related to household activities. 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.

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.

Shudharini and Raju (1991) reported that household based subsidiary professional program such as cattle production, poultry rearing, agriculture, sericulture, mushroom cultivation and fruit preservation might generate extra employment opportunities for the farm women's especially female rural youth and gradually they will produce this operation. Ali and Rahman (1997) found the same thing.

Islam and Huq (1994) in their comprehensive study of duck and 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 care and management of duck and chicken (above 60 percent) while men were involved in purchase and sale of birds and meat (above 40 percent).

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

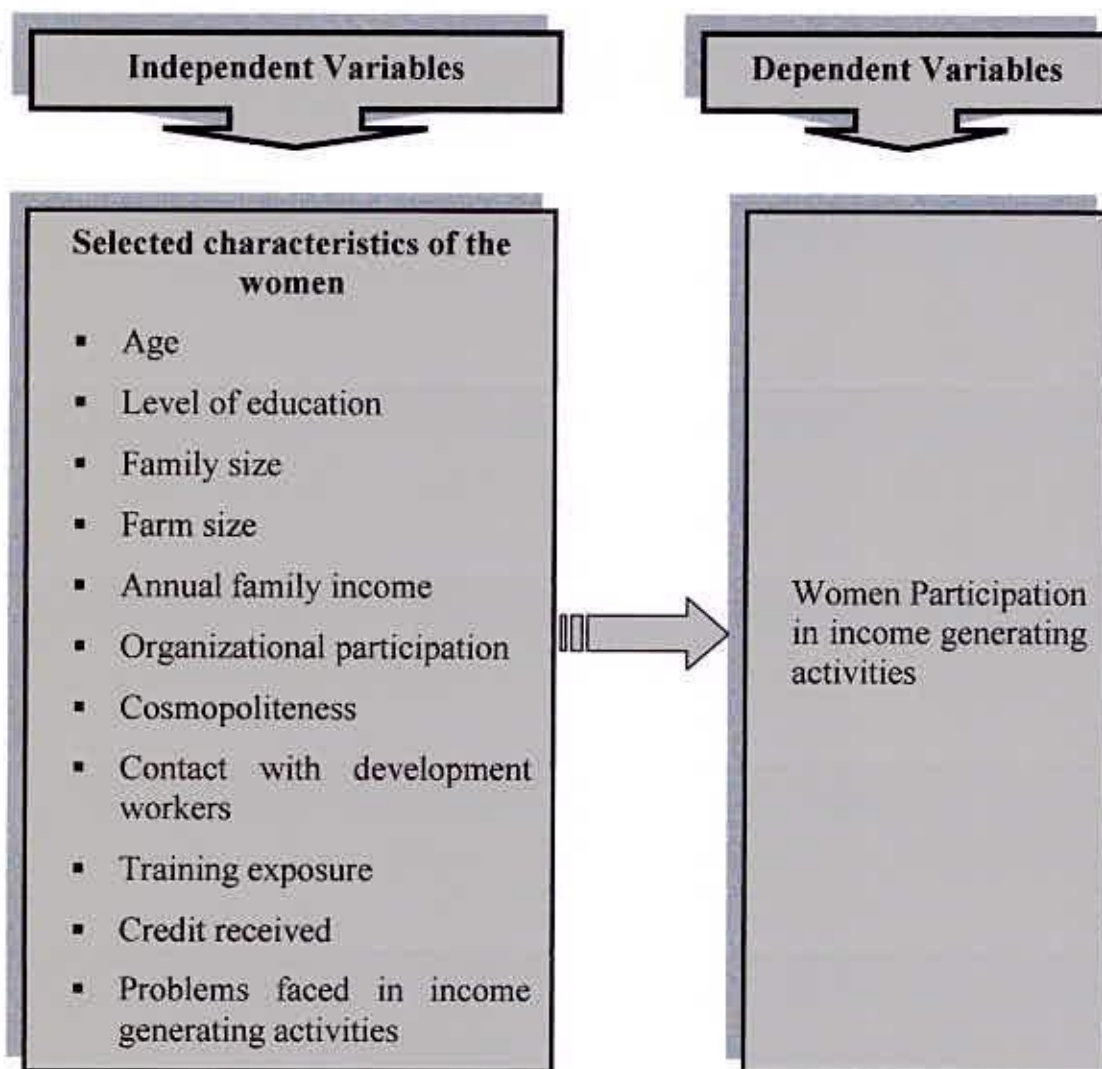
Saha's (1997) study found that among 10 items in relation in income earning activities to top three items were 1) cultivation of modern vegetable, 2) cultivation of modern crop and 3) small business.

### **2.3 Conceptual Framework of the Study**

The hypothesis of a research while constructed properly consists at least two important elements i.e. "a dependent variable" and "an independent variable." A dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or varies the independent variables (Townsend, 1953). An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationship to an observed phenomenon. Variables together are the causes and the phenomenon is effect and thus, there is cause effect relationship everywhere in the universe.

The conceptual framework of Rosenberg and Hovland (1960) was kept in mind while making structural arrangements for the dependent and independent variables. This study is concerned with the women participation in income generating activities. Thus, the woman on participation in income generating activities was the dependent variable and 11 selected characteristics of the women were considered as the independent variables. Perception of an individual may be affected through interacting forces of many independent variables. It is not possible to deal with all independent variables in a single study. It was therefore, necessary to limit the independent variables, which include age, level of education, family size, farm size, annual family income, organizational participation, cosmopolitaness, contact with development workers, training exposure, credit received and problems faced in income generating activities for this study. Considering the above mentioned discussion, a conceptual framework

has been developed for this study, which is diagrammatically presented in the following Figure 2.1.



**Figure 2.1 The conceptual framework of the study**



## CHAPTER 3

### METHODOLOGY

Methodology enables the researcher to collect valid information. It is impossible to conduct research work smoothly without proper methodology and it is very difficult to address the objectives with a scientific and specific manner. It requires a very careful consideration on the part of the researcher to collect valid and reliable data and to analyze the same for meaningful conclusion. A sequential description of the methodologies followed in conducting this research work has been presented in this chapter.

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

The study was conducted in the Daulatkhan upazila under Bhola district. This upazila is situated 30 km south from Bhola districts head quarters. The selected area was located within 10-15 km from the upazila sadar. Daulatkhan upazila consists of nine unions of which the study was conducted in Saidpur, Bhabanipur and Char Khalifa union. The poverty of the rural families, the unemployment problems of the rural families, the participation of rural women in income generating activities and the undeveloped socio-economic situation led the researcher to undertake these unions as locale of the study. Maps of Bhola district and Daulatkhan upazila showing the study area are presented in Figures 3.1 and 3.2, respectively.

#### **3.2 Sample size**

Women of Saidpur, Bhabanipur and Char Khalifa union under Daulatkhan Upazila constituted the population of the study. A list of 1017 women of the selected union was collected from the Children and Women Affairs Officer of this locality. Ten percent of the population were randomly selected as the sample of the study by using simple random sampling method. Thus, 102 women constituted the sample of the study. A reserve list of 20 women was also prepared by the same method so that the respondents of this list could be used for interview



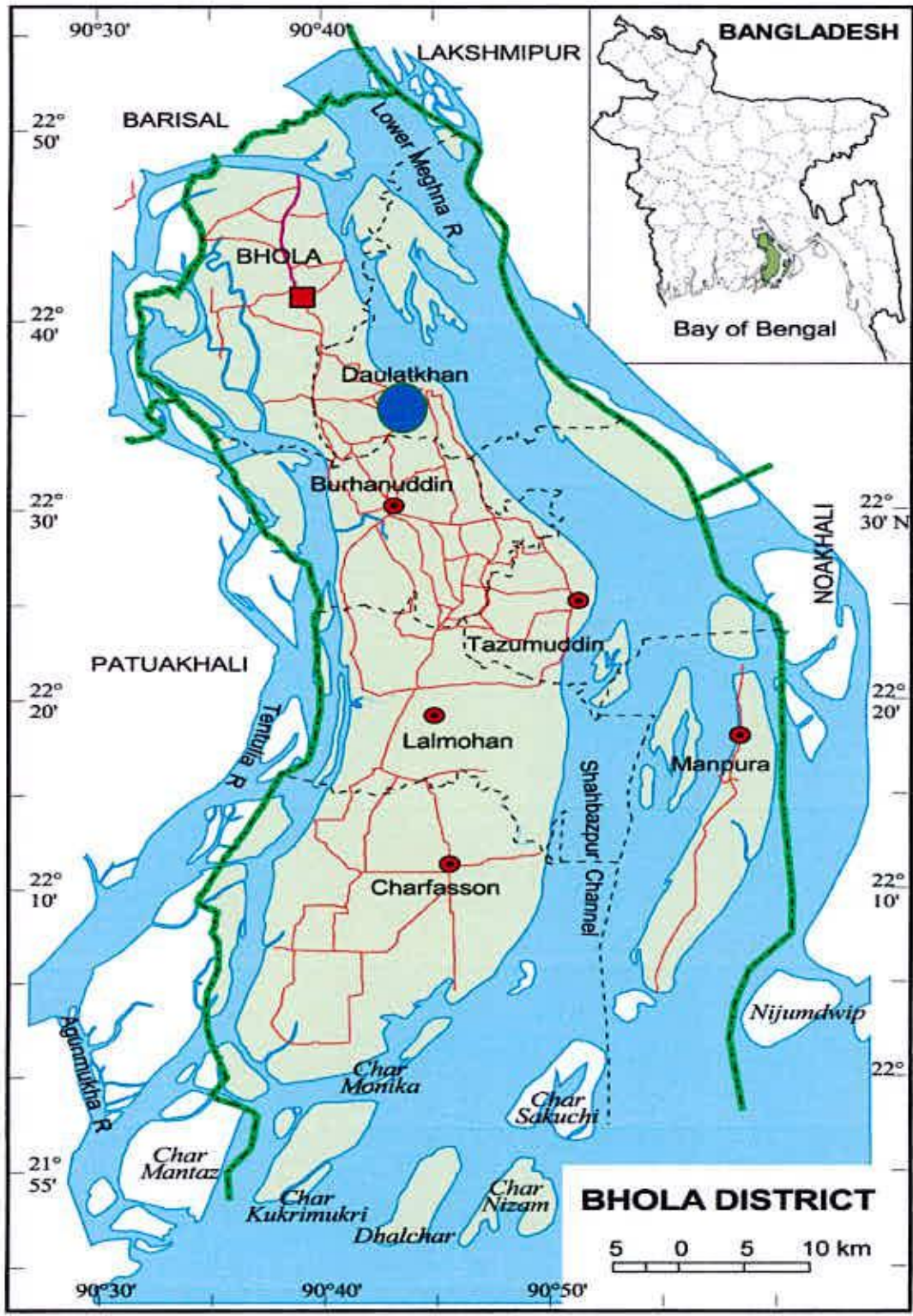


Figure 3.1 A Map of Bhola district Showing Daulatkhān upazila

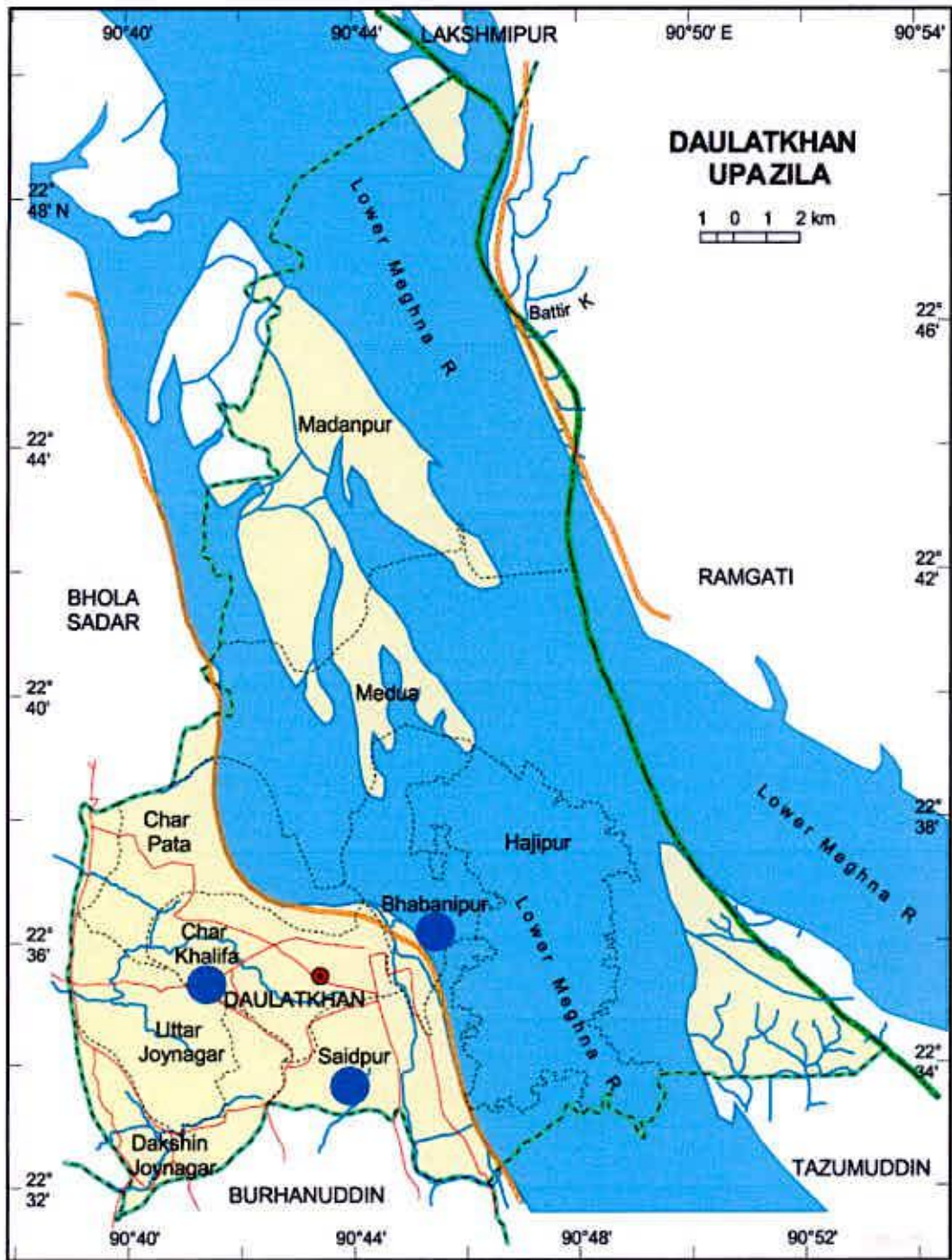


Figure 3.2 A Map of Daulatkhan upazila Showing the Study Area

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if the respondents included in the original sample were not available at the time of data collection. The distribution of the population sample and number of women in the reserve list are shown below-

**Table 3.1 Distribution of the population sample and number of women in the reserve list**

Name of the of Unions	No. of women	No. of women included in the sample	No. of women in the reserve list
Saidpur	419	42	8
Bhabanipur	321	32	6
Char Khalifa	277	28	6
Total	1017	102	20

### **3.3 The Research Instrument**

A well structured interview schedule was prepared based on the objectives of the study for collecting information. The interview schedule was constructed containing direct and simple questions in open and close form keeping in view the dependent and independent variables of the study. Appropriate scales were developed to measure both independent and dependent variables.

The questionnaire was pre-tested with ten women in actual situation before its finalization for collection of data. Necessary corrections, additions, alternations, rearrangements and adjustments were made in the interview schedule based on pretest experience. The questionnaire was then multiplied by printing in its final form. A copy of the interview schedule is presented into Appendix I.

### **3.4 Data Collection Procedure**

The researcher himself collected the data from the sample respondents through personal contact. Whenever any respondent faced complicatedness in understanding questions, more attention was taken to explain the same with a view to enabling the women to answer properly. No serious problem was faced by the investigator during data collection but obtained cooperation from the respondents. Data collection was started on 10 September, 2009 and completed on 05 October, 2009.

### **3.5 Measurement of variables**

The variable is any characteristic, which can assume varying, or different values in successive individual cases (Ezekiel and Fox, 1959). A research work usually contains at least two important variables viz. independent and dependent variable. An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationship to an observed phenomenon. A dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or varies the independent variable (Townsend, 1953). In the scientific research, the selection and measurement of variable constitute a significant task. In this conception, the researcher reviewed literature to widen this understanding about the natures and scopes of the variables relevant in this research. He also discussed with his supervisor and co-supervisor and concerned researchers of the related fields. At last he had selected 11 independent variables and a dependent variable. The independent variables were: age, level of education, family size, farm size, annual family income, organizational participation, cosmopolitaness, contact with development workers, training exposure, credit received and problems faced in income generating activities. The dependent variable of this study was the women participation in income generating activities. The methods and procedures in measuring these independent and dependent variables are presented below:

### **3.6 Measurement of independent variables**

The 11 characteristics of the respondents women mentioned above constitute the independent variables of this study. The following procedures were followed for measuring the independent variables.

#### **3.6.1 Age**

Age of respondent women was measured by the period of time from their birth to the time of interview and it was measured in terms of complete years on the basis of the respondent response. A score of one (1) was assigned for each year age.

### 3.6.2 Level of education

Level of education was measured in terms of grades (class) passed by respondent women. The respondent education was assessed in terms of year of schooling, i.e. one (1) score was given for one year of schooling. For example, if the respondent passed the final examination of class VII, their education score was taken as 7. If the respondent had education out side school and the level of education was equivalent to that of class V of the school than her education score was taken as 5. Each illiterate person was given a score of zero. The respondent who did not know how to read or write but able to sign only was given a score of 0.5.

### 3.6.3 Family size

The family size of a respondent was measured in terms of actual number of members in her family including herself, spouse, children, brothers in law, sisters in law, parents in law and any other person who jointly live and ate together during interviewing.

### 3.6.4 Farm size

Farm size of respondent women referred to the total area of land on which her family carried out farming operation, the area being in terms of full benefit her family. It was measured in hectares for each respondent using the following formula;

$$FS = F_1 + F_2 + \frac{1}{2}(F_3 + F_4) + F_5$$

Where,

FS = Farm size

F<sub>1</sub> = Homestead area with pond

F<sub>2</sub> = Own land under own cultivation

F<sub>3</sub> = Land given to others on share cropping in

F<sub>4</sub> = Land taken from others on share cropping out

F<sub>5</sub> = Land taken from others on mortgage

### 3.6.5 Annual income

The term annual income referred to the annual gross income of a family earned by respondent herself and other members of her family from different sources. It was expressed in taka. In measuring this variable, the total earning of an individual respondent was converted into score. Assigning score of one for everyone thousand taka.

The method of ascertaining income from agriculture involved three phases. Firstly, the yield of all crops in the preceding year was recorded in local unit and then converted into taka. Secondly, income from livestock and fisheries sector was also converted into taka. Thirdly, non-agricultural sources of income included earning form service, business and other sources. The earnings from the three sectors were summed up using the following formula-

$$AI = Ag + LS + F$$

Where,

AI = Annual income

Ag = Income from agriculture

LS = Income from livestock

F = Income from fisheries



### 3.6.6 Organizational participation

Organizational participation of respondent women was measured on the basis of the nature of their participation in different organizations. Score was computed by adding all type of participation.

Following scores were assigned for nature of participation:

<u>Nature of participation</u>	<u>Scores assigned</u>
No participation	0
Participation as ordinary member	1
Participation as executive member	2
Participation as executive officer	3

The organizational participation seems ranged from 0-24. Where 0 indicates no organizational participation and 24 indicated high organizational participation.

### **3.6.7 Cosmopolitaness**

Cosmopolitaness score was computed for each respondent's women to determine her degree of cosmopolitaness on the basis of her visits to seven different types of places external to her own social system. The scale used for computing the cosmopolitaness scores is presented below:

<b><u>Extent of visit</u></b>	<b><u>Scores assigned</u></b>
Not at all	0
Rarely	1
Occasionally	2
Frequently	3

Scores obtained for visits to each of the above seven categories of places were added together to get the cosmopolitaness score of a respondent. Cosmopolitaness score of an individual could range from 0 to 21 where 0 indicated no cosmopolitaness and 21 indicated high cosmopolitaness.

### **3.6.8 Contact with development workers**

Contact with development workers of the respondent women was measured on the basis of the extent of her contact with development workers. Score was computed by adding all type of extent of contact with the development workers.

Following scores were assigned for measuring contact with development workers:

<b><u>Extent of contact</u></b>	<b><u>Scores assigned</u></b>
No contact	0
Low contact	1
Medium contact	2
High contact	3

The contact with development worker score seems ranged from 0-30. Where 0 indicates no contact and 30 indicated high level contact.

### **3.6.9 Training exposure**

Training exposure was measured by the total number of days a respondent attended in various training courses during her life. For no training exposure score was assigned 0. According to training exposure the respondent women were categorized as low exposure, who received training less than 3 days, medium exposure who received training 3-6 days and high received training exposure, who, received training more than 6 days.

### **3.6.10 Credit received**

Credit received by the respondent women was measured on the basis of the amount of credit that they received from different organizations. It was expressed in taka. In measuring this variable, total amount of credit in taka of an individual respondent. A score of one was given for every one thousand taka.

### **3.6.11 Problem faced in income generating activities**

Problem faced in income generating activities of respondent women was measured on the basis of the extent of problem that they faced in different income generating activities. Score was computed by adding all type of extent of problem that they faced in operating different income generating activities that they involved themselves.

Following scores were assigned for measuring problem faced in different IGAs:

<b><u>Nature of problem</u></b>	<b>Scores assigned</b>
No problem faced	0
Low problem faced	1
Medium problem faced	2
High problem faced	3
Serious problem	4



The problem faced in income generating activities score seems ranged from 0-36. Where, 0 no problem and 36 indicated high problem.

### **3.7 Measurement of dependent variable**

Women participation in income generating activities was the dependent variable of this study. Participation in income generating activities of the respondent women was measured on the basis of the extent of participation in income generating activities. Total 15 issues including other were identified as the activities of income generating activities. Score was computed by adding all type participation and extent of participation in income generating activities. Following scores were assigned for measuring participation in income generating activities:

<b><u>Extent of participation</u></b>	<b><u>Scores assigned</u></b>
No participation	0
Low level participation	1
Medium level participation	2
High level participation	3

The participation of income generating activities score ranged from 0-45. Where 0 indicates no participation and 45 indicated high participation.

### **3.8 Hypothesis of the study**

As defined by Goode and Hatt (1952) "A hypothesis is a proposition which can be put to a test to determine it's validity. It may seem contrary to, or in accord with common sense. It may prove to be correct or incorrect. In any event, however, it leads to an empirical test".

The following hypothesis is formulated to explore the relationship between the dependent and independent variables. The major research hypothesis for the study is: "there is a relationship between the women participation in income generating activities and their selected characteristics including age, level of education,

family size, farm size, annual family income, organizational participation, cosmopolitaness, contact with development workers, training exposure, credit received and problems faced in income generating activities”.

The research hypothesis was converted into null form for the purpose of statistical testing. The major null hypothesis states that “There is no relationship between the women participation in income generating activities and their selected characteristics”. Eleven null hypotheses were formulated dealing with each of the selected characteristics.

### **3.9 Collection of data**

The investigator himself collected data on the basis of objectives to test the hypothesis.

### **3.10 Data processing**

For data processing and analysis the following steps were followed:

#### **3.10.1 Compilation of data**

After completion of field survey all the interview schedule were compiled, tabulated and analyzed according to the objectives of the study. In this process all the responses in the interview schedule were given numerical coded values. The responses to the question in the interview schedule were transferred to a master sheet to facilitate tabulation. Tabulation was done on the basis of categories developed by the investigator himself.

#### **3.10.2 Categorization of respondents**

For describing the various independent and dependent variables the respondents were classified into various categories. In developing categories the researcher was guided by the nature of data and general consideration prevailing on the social system. The procedures have been discussed while describing the variable in the sub-sequent sections of next chapter.

### 3.11 Data analysis

Data collected from the respondents were compiled, coded, tabulated and analyzed in accordance with the objectives of the study. Various statistical measures such as frequency counts, percentage distribution, average and standard deviation were used in describing data. SPSS (version 11.5) computer program were used for analyzing the data. The categories and tables were used in describing data. The categories and tables were also used in presenting data for better understanding.

For determining the association of the selected characteristics of the women with the women participation in income generating activities Pearson Product Moment Correlation was used. Five percent (0.05) level of probability was used as the basis for rejecting null hypothesis. In order to find out the relationship between the dependent and independent variables correlation co-efficient was done.



## CHAPTER 4

### RESULTS AND DISCUSSION

The findings and possible interpretation of the study were presented in this chapter in accordance with the objectives of the study. The chapter has three (3) sections. The first section deals with the characteristics of the respondent women. The second section deals with the women participation in income generating activities. The third section deals with the relationship between individual characteristics of respondents women with participation in income generating activities.

#### **4.1 Characteristics of the respondents**

An individual possesses of various interrelated characteristics were influence the women participation in income generating activities in the area where the study were conducted. It was therefore, hypothesized that the characteristics of the women would have an effect on participation in income generating activities. Considering the present context and collected information, the outstanding features of eleven selected characteristics of the respondent women such as age, level of education, family size, farm size, annual family income, organizational participation, cosmopolitaness, contact with development workers, training exposure, credit received and problems faced in income generating activities are presented below:

##### **4.1.1 Age**

The age of the respondent women ranged from 19 to 64 years with the mean and standard deviation were 37.53 and 11.57, respectively. Considering the recorded age score of the women they were classified into three categories namely 'young, 'middle and 'old'. The distribution of the respondent women on the basis of age is presented in Table 4.1.

**Table 4.1 Distribution of the women according to their age**

Categories (Years)	Respondents		Mean	Standard deviation
	Number	Percent		
Young (below 35)	55	53.9	37.53	11.57
Middle (35-50)	29	28.5		
Old (above 50)	18	17.6		
Total	102	100		

Table 4.1 indicates that the young aged respondent women constituted the highest proportion (53.9 percent) followed by middle aged (28.5 percent) and the lowest proportion were made by the old aged category (17.6 percent) among the respondent women of the study area. Data also indicate that the young and middle aged women constituted an overwhelming majority (82 percent) of the respondents. The young and middle aged women generally tend to be involved with several income generation activities considering the status and necessity of the locality than the old aged women. In fact, women who are young and energetic have leadership quality and think about their socio-economic development and they try to participate in income generating activities. In this study, it was observed that young or middle aged women have a preference to involve with income generating activities for the improvement of their living as well as socio-economic condition.

#### **4.1.2 Level of Education**

Considering the education level of the respondent women it was varied from 0 to 12 with mean and standard deviation 4.46 and 3.21, respectively. Based on their education score, the women were classified into five categories namely 'illiterate' (0), 'can sign name only' (0.5), 'primary education' (1 to 5), 'secondary education' (6 to 10) and above secondary education (above 10). The distribution of the women according in respect to total respondents and percentage of the respondent to their education has been presented in Table 4.2.

**Table 4.2 Distribution of the women according to their level of education**

Categories (Schooling Years)	Respondents		Mean	Standard deviation
	Number	Percent		
Illiterate (0)	12	11.8	4.46	3.21
Can sign only (0.5)	15	14.7		
Primary education (1-5)	32	31.3		
Secondary education (6-10)	41	40.2		
Above secondary (above 10)	02	2.0		
Total	102	100		

Table 4.2 shows that (40.2 percent) of the women had secondary level of education followed by 31.3 percent primary level education, can sign only (14.7 percent) and illiterate (11.8 percent). Only 9 percent respondent women had above secondary level education. Education broadens the horizon of outlook of women and expands their capability to analyze any situation related to needs which help them for the selection of appropriate income generating activities. It is very exciting matter that about three fourths of the respondent women had education ranged from primary level to above secondary. So, it is expected that primary to above secondary level educated respondent women would have good outlook towards income generating activities and they can easily would be capable them for the engaged with this types of initiatives.

#### **4.1.3 Family Size**

Family size of the respondent women ranged from 2 to 9 with the mean and standard deviation of 4.31 and 1.76, respectively. According to family size, the respondent women were classified into three categories namely 'small family', 'medium family' and 'large family'. The distribution of the respondent women with number and percentage on the basis of the family size has been presented in Table 4.3.

**Table 4.3 Distribution of the women according to their family size**

Categories (No. of members)	Respondents		Mean	Standard deviation
	Number	Percent		
Small family (below 4)	61	59.8	4.31	1.76
Medium family (4-7)	35	34.3		
Large family (above 7)	06	5.9		
Total	102	100		

Data in Table 4.3 indicate that the small family constituted the highest proportion (59.8 percent) followed by medium family (34.3 percent). Large family sizes constituted the lowest (5.9 percent) proportion among the respondents. Table 4.3 showed that average family size of the respondent women was lower than that of national average of 5.4 (BBS, 2005). Women of the study area had standard of education, the influence of which they could keep their family small one.

#### 4.1.4 Farm size

The farm size of the household of the respondent women ranged from 0.15 hectare to 3.60 hectare with a mean and standard deviation of 0.972 and 0.861, respectively. Based on their farm size, the respondents were classified into three categories following the categorization followed by DAE (1999). These categories were marginal farm holder (below 0.2 ha.), small farm holder (0.201 to 1.0 ha.) and medium farm holder (1.01 to 3.0 ha) and large above 3.01 ha. The distribution of the women according to farm size categories has been presented in Table 4.4.

**Table 4.4 Distribution of the women according to their farm size**

Categories (ha)	Respondents		Mean	Standard deviation
	Number	Percent		
Marginal (below 0.2 ha)	17	16.7	0.972	0.861
Small (0.200-1.0 ha)	48	47.0		
Medium (1.01 to 3.0 ha)	32	31.4		
Large (above 3.01 ha)	05	4.9		
Total	102	100.0		

Data contained in the Table 4.4 indicates that the highest proportion of the respondent women constituted the small farm size category (47.0 percent) followed by medium farm size (31.4 percent). However, small and medium farm size holders together constituted an overwhelming majority (78 percent) the farm size of which ranged from 0.2 to 3.0 ha. Only about 16.7 percent of the respondents were marginal farm owner while 4.9 percent belonged to large farm category. From the findings it is expected that the respondent women would have limited income that influence them to engaged in different income generating activities.

#### 4.1.5 Annual family income

Score of annual family income of the respondent women ranged from 50 to 305 with the mean and standard deviation of 103.98 and 49.27, respectively. On the basis of the annual family income of the respondents, they were classified into three categories as low, medium and high family income. The distribution of the women according to the annual family income has been presented in Table 4.5.

**Table 4.5 Distribution of the women according to their annual family income**

Categories ('000 Taka)	Respondents		Mean	Standard deviation
	Number	Percent		
Low income (below 75)	35	34.3	103.98	49.27
Medium Income (75-150)	52	51.0		
High Income (above 150)	15	14.7		
Total	102	100.0		

Data in Table 4.5 revealed that more than one half of the respondent women constituted the medium family income category, while 34.3 percent and 14.7 percent belonged to small and high income categories, respectively.

#### 4.1.6 Organizational participation

Organizational participation score of the respondent women ranged from 5 to 21 against the possible range of 0-24 with a mean and standard deviation of 13.32 and 3.87, respectively. According to organizational participation the respondents



were classified into three categories viz. ‘Low level participation, ‘medium level participation and ‘high level participation’ on the basis of their observed scores. The distribution of the respondent women according to organizational participation has been presented in Table 4.6.

**Table 4.6 Distribution of the women according to their organizational participation**

Organizational participation (Category)	Respondents		Mean	Standard deviation
	Number	Percent		
Low (below 10)	23	22.5	13.32	3.87
Medium (10-20)	76	74.6		
High (above 20)	03	2.9		
Total	102	100		

Data in Table 4.6 indicate that the medium level organizational participation constitutes the highest proportion (74.6 percent) followed by low level organizational participation (22.5 percent) and high level participation (2.9 percent). However, an overwhelming majority 97.1% women respondent had organizational participation ranged from low level to medium level. Only 2.9% women had high participation. More organizational participation could create opportunity for changing attitude towards involving income generating activities.

#### **4.1.7 Cosmopolitaness**

The cosmopolitaness of the respondents’ women ranged from 6 to 19 against the possible range of 0-21 with a mean and standard deviation of 12.45 and 3.21, respectively. Based on their cosmopolitaness score, the respondents were classified into three categories. These categories were low, medium and high cosmopolitaness. The distribution of the cosmopolitaness score of the respondent women presented in Table 4.7.

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

Cosmopolitaness (Category)	Respondents		Mean	Standard deviation
	Number	Percent		
Low cosmopolitaness (below 10)	28	27.5	12.45	3.21
Medium cosmopolitaness (10-15)	55	53.9		
High cosmopolitaness (above 15)	19	18.6		
Total	102	100		

Table 4.7 indicates that more than half of the respondents' women (53.9 percent) had medium cosmopolitaness followed by low cosmopolitaness (27.5 percent) and high cosmopolitaness category (18.6 percent). It was also revealed that about three fourths (72.5%) of the respondents women belonged to medium to high category. The cosmopolitaness score obtained by the respondent women is very much progressive and symptoms of self development. So, it is expected that more the cosmopolitaness more the participations in income generating activities.

#### 4.1.8 Contact with development workers

Contact with development workers score ranged from 5 to 26 against the possible range of 0-30 with the mean and standard deviation of 13.54 and 4.36, respectively. According to the contact with service providers the respondent women were classified into three categories viz. 'low', 'medium' and 'high' on the basis of their observed scores. The distribution of the women according to their score of contact with development workers is presented in Table 4.8.

**Table 4.8 Distribution of the women according to their contact with development workers**

Categories (Years)	Respondents		Mean	Standard deviation
	Number	Percent		
Low contact (below 10)	25	24.5	13.54	4.36
Medium (10-20)	67	65.7		
High contact (above 20)	10	9.8		
Total	102	100		

Data in Table 4.8 indicates that the medium level contact with development workers constitutes the highest proportion (65.7 percent) followed by low level contact with development worker (24.5 percent) and only 9.8 percent respondent had high level contact with development workers. More contact with development workers could create opportunity for involving income generating activities. The women with more contact with development workers lead to gather more information regarding income generating activities.

#### 4.1.9 Training exposure

The score of training exposure of the respondents ranged from 0 to 9, with an average of 1.98 and standard deviation of 1.18. Based on the training exposure the respondents were classified into the four categories i.e., no training, low, medium and high training exposure. The distribution is shown in the Table 4.9.

**Table 4.9 Distribution of the respondents according to their training exposure**

Categories (Score)	Respondents		Mean	Standard deviation
	Number	Percent		
No training (0)	43	42.2	1.98	1.18
Low training (below 3)	40	39.2		
Medium training (3-6)	14	13.7		
High training (above 6)	5	4.9		
Total	102	100		

Majority (53.8%) of the women received training ranged from low level to high level training. But a good number of women received no training. This means that training exposure has vast opportunity to the respondents of the study area to have sufficient information about different income generating activities. However, NGO workers should give more effort to arrange training program for women so that they can be involved in income generating activities.

#### 4.1.10 Credit received

Credit received score of respondent women ranged from 0 to 20 with mean and standard deviation 10.23 and 5.96, respectively. On the basis of credit received score, the respondents were classified into four categories namely, no credit received, low credit received 'moderate credit received' and 'high credit received'. The distribution of the respondents according to their receiving amount of credit is given in Table 4.10.

**Table 4.10 Distribution of the women according to their receiving amount of credit**

Categories (score)	Respondents		Mean	Standard deviation
	Number	Percent		
No credit (0)	14	13.7	10.23	5.96
Low (below 10)	36	35.3		
Moderate (10-15)	39	38.3		
High (Above 15)	13	12.7		
Total	102	100		

Data of Table 4.10 reveals that majority (38.3 percent) of the respondents belong to moderate credit received category followed by 35.3 percent in low credit received category. Among the respondents 13.7 percent respondent did not receive any credit and only 12.7 percent received credit amount above 15 thousand. For any type of income generating activities needs financial support. In the rural area this financial support can be ensured through micro credit.

#### 4.1.11 Problems faced in income generating activities

Problem faced in income generating activities score of the respondent's women ranged from 7 to 28 against the possible range of 0-36 with a mean and standard deviation of 14.51 and 3.53, respectively. Based on their problem faced the respondents were classified into three categories namely minimum, moderate and serious. The distribution of the respondent women is presented in Table 4.11.

**Table 4.11 Distribution of the women according to their problem faced in income generating activities**

Problem (Category)	Respondents		Mean	Standard deviation
	Number	Percent		
Minimum (below 10)	06	5.9	14.51	3.53
Moderate (10-20)	91	89.2		
Serious (above 20)	05	4.9		
Total	102	100.0		

Findings from the Table 4.11 represent that 89.2 percent respondents faced moderate problem in income generating activities. Only 5.9 percent respondents faced minimum problem and 4.9 percent faced serious problems for involving income generating activities. The findings represents that there were minimum ability of the respondents to involve in income generating activities.

#### **4.2 Dependent variable: Women participation in income generating activities**

Participation in income generation activities score of the respondents women ranged from 11 to 38 against the possible range of 0-45 with mean and standard deviation of 18.70 and 6.79, respectively. On the basis of participation in income generation activities score, the respondents were classified into three categories namely, 'low level participation, 'medium level participation and 'high level participation'. Women participation in income generating activities included crop production, livestock rearing, goat rearing, poultry rearing, duck rearing, fish culture, grocery shop, fuel wood sale, collection of shrimp fingerlings, sewing activities, nut marketing, service, nursery management, tree plantation and another business activities. The distribution of the respondents according to their participation in income generation activities is given in Table 4.12.

**Table 4.12 Distribution of the respondents according to participation in income generation activities**

Participation level (Category)	Respondents		Mean	Standard deviation
	Number	Percent		
Low (below 15)	44	43.1	18.70	6.79
Medium (15-30)	47	46.1		
High (above 30)	11	10.8		
Total	102	100		

Data of Table 4.12 reveals that about one half (46.1 percent) of the respondents had medium level participation whereas almost same number (43.1 percent) had low level participation and only tenth of the respondent (10.8 percent) had high level participation in income generation activities. It was also revealed that all the respondent women were involved in income generation activities. Some had high participation and some had low participation. Women occupied their social positions due to their income generation. Everybody loves money and money empowers women to a great extent. So, for the sake of their status and dignity women should participate in income generating activities.

#### **4.3 Relationship of the selected characteristics of women with their participation in income generating activities**

Pearson Product Moment Correlation Co-efficient was computed in order to find out the extent of relationship between the dependent variable and independent variables (Table 4.13). To reject or accept the null hypothesis 0.05 and 0.01 level of significance were considered.



**Table 4.13 Results of Pearson's product moment correlation showing the relationship between women participation in income generating activities and their selected characteristics**

Dependent variable	Independent variable	Value of coefficient of correlation with participation in income generating activities	Tabulated value of 'r'	
			0.05 level	0.01 level
Women participation in income generating activities	Age	-0.184	0.195	0.254
	Level of education	0.326**		
	Family size	-0.087		
	Farm size	0.193		
	Annual family income	0.358**		
	Organizational participation	0.214*		
	Cosmopoliteness	0.324**		
	Contact with development workers	0.307**		
	Training exposure	0.463**		
	Credit received	0.138		
	Problems faced in income generating activities	-0.205*		

\*: Correlation is significant at the 0.05 level;

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

#### **4.3.1 Relationship between age and women participation in income generating activities**

The coefficient of correlation between age and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be -0.184. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables "r" (-0.184) was found to be smaller than the tabulated value ( $r = 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.*
- *The null hypothesis was accepted.*

- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a negative trend between the concerned variables.*

Based on the above findings it was concluded that age of the respondents had non significant negative relationships with the women participation in income generating activities. This represent that age of the women was not an important factor regarding women participation in income generating activities but with the increases of age of the respondent's women participation in income generating activities also decreases. Although, the relationship was insignificant but it was found to be nearly significant. So, influence of age in participation in income generating activities cannot be avoided.

#### **4.3.2 Relationship between level of education and women participation in income generating activities**

The coefficient of correlation between level of education and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be 0.326. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables "r" (0.326) was found to be greater than the tabulated value ( $r = 0.254$ ) with 100 degrees of freedom at 0.01 level of probability.*
- *The null hypothesis was rejected.*
- *The relationship between the concerned variables was statistically significant at 0.01 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that level of education of the respondents had significant positive relationships with the women participation in income generating activities. This represent that level of education of the women



was an important factor regarding women participation in income generating activities. With the increases of level of education of the respondent women attitude and decision making ability also increases and that leads to increase the women participation in income generating activities.

#### **4.3.3 Relationship between family size and women participation in income generating activities**

The coefficient of correlation between family size and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be -0.087. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables "r" (-0.087) was found to be smaller than the tabulated value ( $r = 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.*
- *The null hypothesis was accepted.*
- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a negative trend between the concerned variables.*

Based on the above findings it was concluded that family size of the respondents had non significant negative relationships with the women participation in income generating activities. This represent that family size of the women was not an important factor regarding women participation in income generating activities but with the increases of family size of the respondent women participation in income generating activities also decreases.

#### **4.3.4 Relationship between farm size and women participation in income generating activities**

The coefficient of correlation between farm size and women participation in income generating activities is presented in Table 4.13. The computed value of

coefficient of correlation between the concerned variables was found to be 0.193. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables “r” (0.193) was found to be smaller than the tabulated value ( $r = 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.*
- *The null hypothesis was accepted.*
- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that farm size of the respondents had non significant positive relationships with the women participation in income generating activities. This represent that farm size of the women was not an important factor regarding women participation in income generating activities and with the increases of farm size participation in income generating activities also increases. Although the correlation between the variables was insignificant but the computed value 0.193 is very much closed to tabulated value. So, influence of farm size in participation in income generating activities cannot be avoided.

#### **4.3.5 Relationship between annual family income and women participation in income generating activities**

The coefficient of correlation between annual family income and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be 0.358. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables “r” (0.358) was found to be greater than the tabulated value ( $r = 0.254$ ) with 100 degrees of freedom at 0.01 level of probability.*
- *The null hypothesis was rejected.*
- *The relationship between the concerned variables was statistically significant at 0.01 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that annual family income of the respondents had significant positive relationships with the women participation in income generating activities. This represent that annual family income of the women was an important factor regarding women participation in income generating activities and with the increases of annual family income of the respondent’s women participation in income generating activities also increases. Annual family income of the women influences the women participation in income generating activities.

#### **4.3.6 Relationship between organizational participation and women participation in income generating activities**

The coefficient of correlation between organizational participation and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be 0.214. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables “r” (0.214) was found to be greater than the tabulated value ( $r = 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.*
- *The null hypothesis was rejected.*
- *The relationship between the concerned variables was statistically significant at 0.05 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that organizational participation of the respondents had significant positive relationships with the women participation in income generating activities. This represent that organizational participation of the women was an important factor regarding women participation in income generating activities and with the increases of organizational participation of the respondent's women participation in income generating activities also increases.

#### **4.3.7 Relationship between cosmopolitaness and women participation in income generating activities**

The coefficient of correlation between cosmopolitaness and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be 0.324. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables "r" (0.324) was found to be greater than the tabulated value ( $r = 0.254$ ) with 100 degrees of freedom at 0.01 level of probability.*
- *The null hypothesis was rejected.*
- *The relationship between the concerned variables was statistically significant at 0.01 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that cosmopolitaness of the respondents had significant positive relationships with the women participation in income generating activities. This represent that cosmopolitaness was an important factor regarding women participation in income generating activities and with the increases of cosmopolitaness women participation in income generating activities also increases. Cosmopolitaness of the women influences women participation in income generating activities.

#### **4.3.8 Relationship between contact with development workers and women participation in income generating activities**

The coefficient of correlation between contact with development workers and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be 0.307. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables “r” (0.307) was found to be smaller than the tabulated value ( $r = 0.254$ ) with 100 degrees of freedom at 0.01 level of probability.*
- *The null hypothesis was rejected..*
- *The relationship between the concerned variables was statistically significant at 0.01 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that contact with development worker of the respondents had significant positive relationships with the women participation in income generating activities. This represent that contact with development workers of the women was an important factor regarding women participation in income generating activities and with the increases of contact with development worker of the respondent women’ participation in income generating activities also increases. Contact with development worker influences women participation in income generating activities.

#### **4.3.9 Relationship between training exposure and women participation in income generating activities**

The coefficient of correlation between training exposure and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be 0.463.

The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables "r" (0.463) was found to be greater than the tabulated value ( $r = 0.254$ ) with 100 degrees of freedom at 0.01 level of probability.*
- *The null hypothesis was rejected.*
- *The relationship between the concerned variables was statistically significant at 0.01 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that training exposure of the respondents had significant positive relationships with the women participation in income generating activities. This represent that training exposure of the women was an important factor regarding women participation in income generating activities and with the increases of training of the respondent women participation in income generating activities also increases.

#### **4.3.10 Relationship between credit received and women participation in income generating activities**

The coefficient of correlation between credit received and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be 0.138. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables "r" (0.138) was found to be smaller than the tabulated value ( $r = 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.*
- *The null hypothesis was accepted.*
- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that credit received of the respondents had non significant positive relationships with the women participation in income generating activities. This represent that credit received by the women was not an important factor regarding women participation in income generating activities but with the increase of credit received women participation in income generating activities also increases. Although the relationship was found to be insignificant but agricultural credit has some influence in participation in income generating activities.

#### **4.3.11 Relationship between problem faced and women participation in income generating activities**

The coefficient of correlation between problem faced and women participation in income generating activities is presented in Table 4.13. The computed value of coefficient of correlation between the concerned variables was found to be -0.205. The following observations were made on the basis of the value of correlation coefficient between the two variables of the study.

- *The calculated value between the concerned variables "r" (-0.205) was found to be smaller than the tabulated value ( $r = 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.*
- *The null hypothesis was rejected.*
- *The relationship between the concerned variables was statistically significant at 0.05 level of probability.*
- *The relationship showed a negative trend between the concerned variables.*

Based on the above findings it was concluded that problem faced in income generating activities of the respondents had significant negative relationships with the women participation in income generating activities. This represent that problem faced in income generating activities was an important factor regarding women participation in income generating activities and with the decreases of problem women's participation in income generating activities also increases.

## CHAPTER 5

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The study was conducted in the Daulatkhan upazila under Bhola district with the main objective to assess the women participation in income generating activities. Daulatkhan upazila consists of nine unions among them Saidpur, Bhabanipur and Char Khalifa union were selected purposively as the locale of the study area. A list of 1017 women from the selected unions adjacent to the Children and Women Affairs Officer of this locality was collected. Ten percent of the population were randomly selected as the sample of the study by using random sampling method. Thus, 102 women constituted the sample of the study. A structured interview schedule was developed based on objectives of the study for collecting information. The researcher himself collected data through personal contact. The independent variables were: age, level of education, family size, farm size, annual family income, organizational participation, cosmopolitaness, contact with development workers, training exposure, credit received and problems faced in income generating activities. Data collection was started on 10 September, 2009 and completed on 05 October, 2009. Various statistical measures such as frequency counts, percentage distribution, average, and standard deviation were used in describing data. Co-efficient of correlation test was used to explore relationship between the concerned variables. The major findings of the study are summarized below:

#### **5.1 Major Findings**

##### **Age**

The young aged respondent women constituted the highest proportion (53.9 percent) followed by middle aged (28.5 percent) and the lowest proportion were made by the old aged category (17.6 percent) among the respondent women of the study area.

##### **Level of education**

About 40.2 percent of the women had secondary level of education followed by 3.3 percent primary level education, can sign only (14.7 percent) and illiterate (11.8 percent). Only 9 percent respondent women had above secondary level education.



### **Family Size**

The small family constitutes the highest proportion (59.8 percent) followed by medium family category (34.3 percent). Large family sizes constitute the lowest (5.9 percent) proportion among the respondent.

### **Farm Size**

The small farm size constituted the highest (47.0 percent) followed by medium farm size (31.4 percent). In combined small and medium farm size holders constituted an overwhelming majority with 78 percent of respondent women. Only about 16.7 percent of the respondents were marginal women and only 4.9 percent were large.

### **Annual Family Income**

The women having medium annual family income constituted the highest proportion (51 percent) followed by the women having low annual family income (34.3 percent) and among the respondents women high annual family income (14.7 percent) constitute the lowest proportion.

### **Organizational participation**

The medium levels organizational participation constituted the highest proportion (74.6 percent) followed by low level organizational participation (22.5 percent) and high level participation (2.9 percent).

### **Cosmopolitaness**

The women have medium cosmopolitaness category constituted the highest proportion (53.9 percent) followed by low cosmopolitaness (27.5 percent) and high cosmopolitaness category (18.6 percent).

### **Contact with development workers**

The medium level contact with development workers constituted the highest proportion (65.7 percent) followed by low level contact with development worker (24.5 percent) and only 9.8 percent respondent had high level contact with development workers.

### **Training exposure**

Overwhelming majority (81.4 percent) of the respondents had no to low level training, only 13.7 percent had medium level training and only 4.9 percent have high level training exposure as above 6 days.

### **Credit received**

The majority (38.3 percent) of the respondents belonged in moderate credit received category followed by 35.3 percent in low credit received category. Among the respondents 13.7 percent respondent did not received any credit and only 12.7 percent received credit amount above 15 thousand.

### **Problems faced in income generating activities**

About 89.2 percent respondents faced moderate problem in income generating activities. Only 5.9 percent respondents faced minimum problem and 4.9 percent faced serious problems for involving income generating activities.

### **Participation in income generating activities**

About half (46.1 percent) of the respondents derived medium level participation followed by 43.1 percent low level participation and only 10.8 percent were high level participation in income generation activities. It means that an overwhelming majority (89.2 percent) of the respondent women had medium to low level participating in income generating activities.

### **Hypothesis testing**

Level of education, annual family income, organizational participation, cosmopolitaness, contact with development workers and training exposure had significant positive relationships with women participation in income generating activities. Farm size and credit received had non significant positive relationships. Problem faced in income generating activities had significant negative relationship with women participation in income generating activities but age and family size had non significant relationship.

## 5.2 Conclusions

1. The findings indicated that among the respondents about 89 percent women had low to medium level participation in income generating activities. This fact leads to the conclusion that there were opportunities to increase the participation level of women in income generating activities.
2. Level of education had significant positive relationships with women participation in income generating activities. Among the respondents women about 81 percent one in the group of secondary level education. These facts indicated that higher level of education of the respondents could raise their participation in income generating activities.
3. Annual family income had significant positive relationships with women participation in income generating activities. About 85 percent women had low to medium level annual income. Highest annual income leads to participation in income generating activities.
4. Organizational participation had positive significant relationship with women participation in income generating activities. Again, an overwhelming majority (87 percent) of the respondents had low to medium level organizational participation. So, it is necessary to increase the organizational participation level that help to could ensure women's participation in income generating activities.
5. Cosmopolitaness had positive significant relationship with women participation in income generating activities. Again, an overwhelming majority (81 percent) of the respondents had low to medium cosmopolitaness. These facts lead to the conclusion that higher cosmopolitaness of the women could increased women participation in income generating activities.
6. Training exposure had positive significant relationship with women participation in income generating activities. Among the respondents about 81 percent have no to low level training exposure. With increases the level of training exposure that leads to women participation in income generating activities.

## **5.3 Recommendations**

### **5.3.1 Recommendations for policy implications**

Recommendations formulated on the basis of experience, observation and conclusions drawn from the findings of the study and have been prescribed to the concerned authorities, planners and executioners are given below:

1. Among the respondents about 89 percent women had low to medium level participation in income generating activities. It is recommended that to increase their level of participation through increasing their level of participation in training program, frequent organizational participation, increasing their annual family income etc.
2. Among the respondent women, about 81 percent stayed in the group of primary to secondary level education. So it should be necessary to increase their education level by creating awareness through upazila education office.
3. Most of the women in the study area were involved in fishing activities like collecting shrimp fingerlings, catching fishes, preparing and repairing fishing net etc. So, upazila fisheries officer with their corresponding should take proper initiative to encourage women in fishing activities.
4. Among the respondent 87 % had low to medium level organizational participation. It is recommended to increase their organizational participation level through establishing various development organizations and their frequent communication with the respondent women.
5. Most of the respondent women said that they had minimum facilities to get credit support. So, it is recommended to provide credit support for encouraging more people in income generating activities of the locality. For this different financial organizations like ASA, Brac, Grameen bank, Bangladesh Krishi bank and other micro credit organizations have to play a vital role as well as their rate of interest should be reasonable and minimized.

### **5.3.2 Recommendations for further study**

On the basis of scope and limitations of the present study and observation made by the researcher, the following recommendations are made for future study.

1. Other factors might have influenced the women participation in income generating activities, which needs to be identified by further study.
2. This study was conducted in Daulatkhan upazila under Bhola district. Similar studies are required to be conducted in other sites of the other area of Bangladesh where similar environmental, socio-economic and physical conditions exist to compare the findings.
3. The study investigated the direct and indirect effects of some variables. Future studies should be conducted to explore the direct and indirect effects of all the variables under investigation.



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## APPENDIX I

English Version of the Interview Schedule  
Department of Agricultural Extension and Information System  
Sher-e-Bangla Agricultural University  
Dhaka-1207

Interview schedule for data collection for the research on

“WOMEN PARTICIPATION IN INCOME GENERATING ACTIVITIES AT  
DAULATKHAN UPAZILA UNDER BHOLA DISTRICT”

Serial No. :

Name of the respondent:.....Father's name:.....

Village:.....Union.....Upazila:.....District.....

Please answer the following questions

**1. Age :**

How old are you? ----- years.

**2. Level of education :**

(Please mention your level of education)

- a) Can not read and write.....
- b) Can sign only.....
- c) I have passed class.....

**3. Please mention the number of your family member.....**

**4. Farm size :**

(Please mention the area of your land according to use)

Sl. No.	Type of land use	Area of land	
		Decimal	Hectare
F <sub>1</sub>	Homestead land		
F <sub>2</sub>	Land under own cultivation		
F <sub>3</sub>	Sharecropping in		
F <sub>4</sub>	Sharecropping out		
F <sub>5</sub>	Leased in		
Total farm size = $F_1 + F_2 + \frac{1}{2}(F_3 + F_4) + F_5$			

**5. Annual Income:**

(Please mention the amount of annual income from the following sources)

**a) Income from Agricultural Crop**

SL. No.	Crop Name	Production (Kg or Maund)	Cost/Kg or Maund	Total Cost (Tk.)
1	Rice			
2	Wheat			
3	Maize			
4	Potato			
5	Jute			
6	Pulse crop			
7	Oil crop			
8	Spice crop			
9	Vegetable			
10	Fruits			
<b>Total</b>				

**b) Income from domestic animals and fish resources**

SL. No.	Income resources	Total Production (Kg or Maund/Number)	Cost/Unit (Tk)	Total Cost (Tk.)
1	Domestic animal			
2	Poultry			
3	Fish resources			
<b>Total</b>				

**c) Income from another resources**

SL. No.	Income resources	Total Income (Tk.)
1	Service	
2	Business	
3	Day labour	
4	Other family members	
<b>Total</b>		

**6) Organizational participation:**

(Please mention the nature of your participation with the following organization. Tick in right place or mention year)

SL. No.	Name of Organizations	Nature of participation (year)				Duration
		No. Participation	Ordinary Member	Executive Member	Executive Officer	
1	BRAC Samity					
2	ASA Samity					
3	Grameen Bank Samity					
4	Union Complex					
5	Grammen Sakti Samity					
6	School/Madrasha					
7	Local Cooperative organization					
8	Upazila Complex					

**7) Cosmopolitaness**

(Please indicate the extent of your travel to the following place) Tick the right answer

SL. No.	Place of Visit	Extent of Visit			
		Frequently	Occasionally	Rarely	Not at all
1	Upazila Agricultural Office				
2	Upazila Fisheries Office				
3	Upazila Livestock Office				
4	Pesticide Sales Agent				
5	Adjacent Village				
6	Adjacent Union				
7	Upazila				

**8) Contact with development workers**

(Please mention the extent of your contact with the following agriculture information media) Tick the right answer

SL. No.	Place of Visit	Extent of Visit			
		Frequently	Occasionally	Rarely	Not at all
1	Upazila Agricultural Officer ✓				
2	Agriculture Extension Officer				
3	Upazila Fisheries Officer				
4	Upazila Livestock Office				
5	BRAC Field Officer				
6	ASA Field Officer				
7	Grameen Field Sakti Officer				
8	Fertilizer traders				
9	Business locality				
10	Sub-Assistant Agricultural Officer				

### 9. Training exposure

Have you participated to any training program related to IGA?

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



If yes, furnish the following information

Sl. No.	Name of training course	Day(s)
1		
2		
3		
4		
5		

### 10. Credit availability

Had you taken any credit this year?

Yes..... No.....

If yes, please mention your amount of credit?..... Thousand Taka

### 11. Problems faced in income generating activities

Please mention the extent of problem faced in income generating activities

Sl. No.	Problems	Extent of problem				
		Very high	High	Medium	Low	Not at all
1.	Economic limitation					
2.	Marketing					
3.	Knowledge related to IGAs					
4.	Gender discrimination					
5.	Credit unavailability					
6.	Lack of training facilities					
7.	Family help					
8.	Communication gap with development workers					
9.	Others					

## 12) Participation in income generating activities

(Please mention the nature of your participation with the following organization. Tick in right place)

SL. No.	Activities	Nature of participation (year)			
		High	Medium	Low	Not at al
1	Crop production				
2	Livestock rearing				
3	Goat rearing				
4	Poultry rearing				
5	Duck rearing				
6	Fish culture				
7	Grocery shop				
8	Fuel wood sale				
9	Collection of shrimp fingerlings				
10	Sewing activities				
11	Nut marketing				
12	Service				
13	Nursery Management				
14	Tree plantation				
15	Other business activities				

Thanks for your co-operation

Signature of the interviewer with Date



## Appendix II. Correlation Matrix

Characters	A	B	C	D	E	F	G	H	I	J	K	L
A	1.00											
B	-0.253*	1.00										
C	0.776**	-0.372**	1.00									
D	0.094	-0.017	0.102	1.00								
E	0.119	-0.048	0.192	0.344**	1.00							
F	-0.227*	0.332**	0.283**	0.195*	0.141	1.00						
G	0.214*	0.046	0.094	0.420**	0.440**	0.010	1.00					
H	0.035	0.012	0.001	0.011	0.216*	0.154	0.255**	1.00				
I	-0.050	0.129	0.040	0.104	0.392**	0.267**	0.325**	0.396**	1.00			
J	0.319**	-0.144	0.310**	0.153	0.337**	-0.088	0.190	0.007	0.125	1.00		
K	0.121	-0.358**	0.250*	-0.168	-0.089	-0.162	-0.232*	-0.029	-0.132	-0.170	1.00	
L	-0.184	0.326**	-0.087	0.193	0.358**	0.214*	0.324**	0.307**	0.463**	0.138	-0.205*	1.00

\* Correlation is significant at the 0.05 level (2-tailed); \*\* Correlation is significant at the 0.01 level (2-tailed).

A: Age

C: Family size

E: Annual family income

G: Cosmopolitaness

I: Training exposure

K: Problems faced in income generating activities

B: level of education

D: Farm size

F: Organizational participation

H: Contact with development workers


J: Credit received

L: Women participation in income generating activities



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