

INVOLVEMENT OF RURAL WOMEN IN HOME  
GARDENING PRACTICES IN SDS AREA OF  
SHARIATPUR DISTRICT

BY

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**REGISTRATION NO. 02181**

A Thesis

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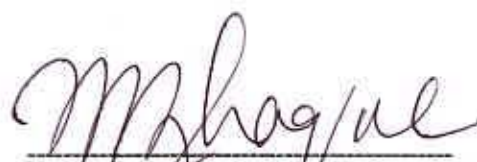
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## CERTIFICATE

This is to certify that the thesis entitled, “INVOLVEMENT OF RURAL WOMEN IN HOME GARDENING PRACTICES IN SDS AREA OF SHARIATPUR 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**, embodies the result of a piece of bona fide research work carried out by **MD. MOSLEH UDDIN, Registration No. 02181** 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.

**Dated:**

**Dhaka, Bangladesh**

**(Professor Md. Rafiquel Islam)**  
**Supervisor**



*Dedicated to  
My  
Beloved Parents who laid the  
foundation of my success*

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**The Author**



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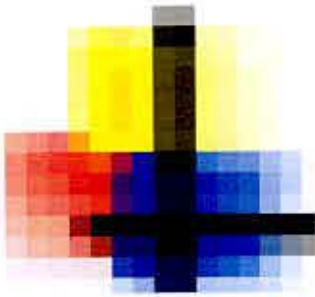
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## ABSTRACT

The prime objective of the study was to find out the involvement of rural women in home gardening practices in SDS area of Shariatpur district. Appropriate scale was developed to measure the involvement effectively. Involvement of rural women in home gardening practices was measured by computing involvement in 11 selected operations and production involvement in 14 different vegetables. Attempt was also made to explore the relationship between the involvement of rural women in home gardening practices with their selected characteristics. The characteristics were age, education, family size, annual family income, knowledge on homestead gardening, training experience, use of information sources, cosmopolitaness, organizational participation and attitude towards homestead gardening. Data were collected from 3 November to 10 December, 2007 from 102 farmers which were randomly selected from Naodoba union of Zanjira Upazila under Shariatpur district. About thirty one percent had low involvement where 68.63 percent had medium involvement in home gardening practices. Significant relationship was found with rural women age, education, annual family income, Knowledge on home gardening, Use of information sources and Attitude towards home gardening. No relationship was found with rural women family size, training experience, cosmopolitaness, and organizational participation.



# CHAPTER I

## **INTRODUCTION**



# CHAPTER I

## INTRODUCTION

### 1.1 General Background

Bangladesh is an agriculture based country. Agriculture is its main economic activities. More over Bangladesh is one of the poorest and most density populated country in world. She is bearing 111.4 million of people in her 147570 sq. km. of area (BBS, 1997). The density of population is about 755 per sq. km. Again the additional of population per year is 1.7 millions with an annual growth rate of 1.53 per cent (BBS, 1997). The country is starving hard to feed her teaming millions. Home gardening can play very important role to improve the nutritional level in the country is almost overlooked. Protein is essentially required for maintenance and development of human body. Animals' foods like meat, milk, egg and fish are important sources of protein.

Homestead is the dwelling place and is the center where all vegetables and quick growing fruits are cultivated. Homestead as defined by Abdullah (1986) if the land owned and occupied by the dwelling unit of the household and immediate area surrounding the dwelling unit including courtyard, pond, road space around homestead , space used for cultivation of trees and vegetables and unutilized space. In Bangladesh, about eighty five percent of the people live in rural areas. Moreover, a vast number (Approximately 45 percent) of our rural people are landless and about 55 percent of the land owners are small farmers. Landless families possess a small piece of land in the homestead area. women of these landless families cultivate different kinds of vegetables, fruits and earn money more than medium and large farm size family (Halim, 1991). This income may meet a part of household expenditure for an average of 5.5 member family sizes (Anonymous, 1991).

Home gardening can play a very important role to improve the nutritional level in the country is almost overlooked by producing vegetables. Protein is essentiality required for maintenance and development of human body. Animal

foods like meat, milk, egg and fish are important sources of protein. But the supply of these items are inadequate in comparison to demand. Prices of these food items have also gone so high that most of the people can not buy those items as they need. Vegetables, however, contain considerable amount protein. Difference between animal and vegetable protein is that animal protein contains all the essential protein required for human body. But protein of particular vegetable does not contain all the essential protein. Hence, in order to meet the required protein from vegetables sources, it becomes necessary to include a number of vegetables in the daily diet.

The vegetables also play a very important role in human nutrition as sources of minerals (iron, calcium, etc.) and different vitamins which are not in adequate qualities in other food items. Vegetables, if taken in proper combination, will not only supply carbohydrate and protein but also minerals and vitamins. This will greatly help to prevent various diseases resulting from malnutrition and unbalanced nutrition. Many vegetables are grown in homestead such as cabbage, carrot, egg plant, cauliflower, potato, tomato, radish , sweet gourd, wax gourd, bitter gourd, teasel gourd, point gourd etc. not much care is taken for growing these vegetables in Bangladesh. Little attention is given cultivate of these vegetables, though these are very important sources of human nutrition. There is a great scope for increasing the production of vegetables throughout the year. But most of the homestead area not utilized properly. So, the production of vegetables are not increasing as they need.

Shariatpur Development Society (SDS) is a local NGO working in Shariatpur. SDS basically works with rural people to improve the living standard. They have activities including assisting rural women to involve in agricultural activities and improve production. Homestead gardening is one of the program run by SDS. They have record number of population in their program and they are running the program for a long time.



From the above discussion, we can say that women can play an important role to fight against malnutrition and to boost up economic development especially through vegetable cultivation. Considering the importance of vegetables both from economic and nutritional point of view the researcher became specially inclined to conduct an investigation on involvement of rural women in home gardening practices in SDS area of Shariatpur district.

## **1.2 Statement of the Problem**

With the view to conduct an investigation on the various aspects of home gardening, the researcher undertook a piece of study entitled “involvement of rural women in home gardening practices in SDS area of Shariatpur district.”

The purpose of this study was to know the answer of the following questions:

1. Do the women of SDS are really involve in productive activities?
2. What extent they are involved in homestead gardening?
3. What are the characteristics of the rural women?
4. Is there any relationship between the selected characteristics of the rural women and their involvement in home gardening?

For getting clarification of the above questions the researcher selected the following objectives of the study.

## **1.3 Specific Objectives**

In order to find proper direction to the purpose of the present study, the following specific objectives were formulated:

i. To describe socio-economic profile of rural women in home gardening practices. The selected characteristics are:

1. Age
2. Education
3. Family size
4. Annual family income

5. Knowledge on homestead gardening
6. Training experience
7. Use of information sources
8. Cosmopolitaness
9. Organizational participation
10. Attitude towards homestead gardening

ii. To determine the extent of involvement of rural women in home gardening practices; and

iii. To explore the relationship between selected characteristics of the rural women with their extent of involvement in home gardening practices

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

The country has almost attained self sufficiency in cereal production. But the production of vegetables in homestead area is still very low. For balanced nutrition everybody should intake sufficient vegetables. Fortunately, Bangladesh is a country of favorable climate where three to four crops could be grown in a year. It has given a wonderful climate to cultivate vegetable varieties of such as Cauliflower, Cabbage, Brinjal, Potato, Tomato, Turnip, Kholrabi, Okra, Sweet gourd, Snake gourd etc. Huge number of vegetables is grown in this country both in summer and winter. Most of the rural women has some homestead area where different types of vegetables they grow. In our country, majority of the rural women cultivate homestead vegetables in unplanned way. But diversified vegetable cultivation considering harvesting period can easily provide vegetable cultivation from their homestead all the year-round. Rural women can play a vital role if they are properly involved in income generating activities like vegetable cultivation. The study area are suitable for growing vegetables, the rural women would cultivate vegetables efficiently if we can motivate them in vegetables cultivation. There may be a great source of vitamins and minerals that can fight against malnutrition as well as to boost up



economic development. To achieve this goal an effective extension program is needed for speedy dissemination of information to the respondents. Before taking such program it is necessary to have clear understanding about their existing practice and knowledge regarding involvement in the vegetable cultivation in homestead area. Hence, the present study “involvement of rural women in home gardening practices in SDS area of Shariatpur district” on has undertaken.

### **1.5 Limitation of the study**

The purpose of the study was to have an understanding of the extent involvement of rural women in home gardening practices. However, from the research point of view, it was necessary to impose certain limitations as follows:

1. The study was confined to Zanjira Upazila of Shariatpur District.
2. Characteristics of the vegetable growers are many and varied but only ten were selected for investigation in this study. This is done to complete the study within limited resources and time.
3. Only 11 operations and cultivation of 14 vegetables were selected under each of the activity for measuring extent of involvement.
4. Only the housewives of male headed family were considered as respondents of the study.
5. Information about the study the researcher depended on the data as furnished by the selected rural women during their interview with him.

### **1.6 Importance of the study:**

The findings of the study will be especially applicable to Zanjira upazila area. However, the findings will also have the implications for other areas of the country having similarities with the study area. Thus the findings are expected

to be useful to the extension workers and planners for preparation of programs for rapid involvement in home gardening practices of the rural women. The findings may also be helpful to the field workers to improve their technique and strategy of action for effective working method with the rural people to generate rural employment and to improve rural economy.

### **1.7 Assumptions**

“An assumption is the supposition that an apparent fact or principle is true in light of the available evidence” (Goode, 1945). It needs no empirical test. The researcher had the following assumptions in mind while undertaking this study.

1. The respondents included in the sample for this study were competent enough to furnish proper responses to the queries made in the interview schedule.
2. The researcher who acted as interviewer was adjusted to social and environmental conditions of the study area. Hence, the data collected by him from the respondents were free from bias.
3. The responses furnished by the respondents were reliable. They expressed the truth about their convictions and opinions.
4. Views and opinions furnished by home gardeners included in the sample were representative views and opinions of the whole population of the study area.
5. The findings of the study will have general application to other parts of the country with similar personal, socio-economic and cultural condition of study area.

### **1.8 Hypothesis**

As defined by Goode and Hatt (1953) “A hypothesis is a proposition, which can be put to a test to determine its 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 empirical test. Hypothesis may be broadly divided into two categories, namely, research hypothesis and null hypothesis. In studying relationship between variables, an investigator first formulates research hypothesis which states anticipated relationships between the variables. However, for statistical test it becomes necessary to formulate null hypothesis. A null hypothesis states that there is no relationship between the concerned variables.

The following null hypothesis was formulated to explore the relationships of the selected characteristics of the rural women with their involvement of rural women in home gardening.

“There are no relationships between the selected characteristics of the rural women and their involvement in home gardening”.

The characteristics are:

- Age
- Education
- Family size
- Annual family income
- Knowledge on homestead gardening
- Training experience
- Use of information sources
- Cosmopolitaness
- Organizational participation
- Attitude towards homestead gardening

### **1.9 Definition of Terms**

Certain key terms used throughout the study are defined in this section for clarity of understanding.



**Involvement in home gardening activities:**

Involvement referred to the extent of participation of rural women in home gardening activities during the years processing or preceding the interview.

**Vegetables:**

The term vegetables, referred to the edible parts of plants (root, stem, leaf, fruit, head, curd / flower etc.) which are eaten as cooked food or green salad.

**Age:**

Age of an individual woman was defined as the period of time in years from his birth to the time of interview.

**Education:**

Level of education of an individual women was defined as the formal education received up to a certain level from an educational institute (e.g. school, college and university) at the time of interview.

**Family size:**

Family size of farmer was defined as the number of individuals in his family including wife, children and other dependent members who live in the same homestead area and eat in the same kitchen.

**Annual family income:**

Annual family income refers to the total earning of a respondent by herself and the members of her family from agriculture and non agriculture (services, business etc.) sources during last year. It was expressed in Taka.

**Knowledge on homestead gardening:**

It referred to the rationalistic understanding of the rural women about different activities related to homestead production in homestead area.



**Training experience:**

Training experience of a respondent defined as the period of time she took training on agricultural production. It is calculated in actual days at the time of interview.

**Use of information sources:**

It refers to the frequency of use of a rural woman to different individual sources, groups sources and mass media for information.

**Cosmopolitaness:**

Cosmopolitaness is the degree to which an individual respondent how frequent visits, travels to the places external to her own social system for the purpose of achieving new experience, new knowledge related to his farm business.

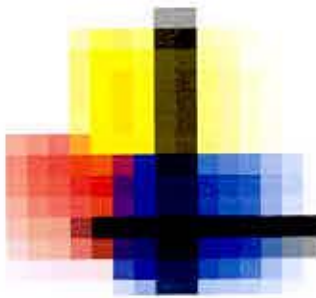
**Organizational participation:**

Organizational participation is referred to the degree to which a farmer takes part in different social organizations either as an ordinary member, executive committee member or executive officer within a specified year.

**Attitude towards homestead gardening:**

An attitude of a woman may be her mental state of readiness that has dynamic influence upon the individual's response to any social object or situation. The term attitude towards homestead gardening if used to refer belief, feelings and action tendencies of women towards the production in homestead area.





# CHAPTER II

## **REVIEW OF LITERATURE**

## CHAPTER II REVIEW OF LITERATURE

The present study is concerned with the involvement of women in home gardening. This review of literature chapter deals with the review of past studies and findings related to study. In fact, very few research works have been done regarding involvement of home gardening practices. So, the researchers found few review of literature directly related to involvement. However, some other literature indirectly related to involvement have been collected and listed below. The literatures reviewed are presented in two major sections. In the first section, literatures on general context and the second section contained relationship between the selected characteristics of the rural women and their involvement in home gardening practices.

### **2.1 Review of literature on general context of home gardening**

Sultana (1993) stated that vegetables and fruits form an integral part of the family diet and a part of them enters the commercial market. Although every member of the family has some contribution to the home stead gardening most of the activities, including seed preparation, land preparation, transplanting, watering and harvesting are done by women. Men usually help in pesticide application.

Finding of Akanda (1994) found that highest proportion of the rural women had high participation in vegetable cultivation while only 0.5 per cent of them had high participation in the cultivation of fruit trees.

Halim *et al.* (1994) reported that in Bangladesh, women produced Indian spinach, Amaranthas, Okra, Gourds, Cucumber and Pumpkin during summer season and country bean, Gourds, Brinjal and Tomato during winter season in their homestead garden successfully.



Islam and Karim (1994) observed in a village of Jessore district, Bangladesh that women participation in vegetable production by 20 to 80 per cent while men participate by 20-50 per cent.

Anwar (1994) indicated that about one third of the rural young individuals had high participation in agricultural activities, one-third had medium and the rest had low. The participation index that the participation of the young individuals were intensive first in crop cultivation related activities, second in rearing poultry, goat and cattle and the third horticultural activities.

Orcherton and Somarriba (1996) stated that some 96% had home gardens but they occupied only 2% of the total area. Home gardens absorbed an average of 48% of the total manual labour available; women and girls contributed to over half (29%-56%) of the family requirements of home gardens. Men mostly dedicated labour to the production of commercial crops (sweet peppers and tomatoes) while women and girls, showed lower (20%) labour participation in the production of these crops. Farm women were highly involved in several agricultural activities traditionally considered as masculine in nature.

Thapa *et al.*(1996) suggested that both hired labour and off -farm income substitute for women's labour in agriculture. Women who have more young children are more likely to be involved in agriculture conversely.

Sharder (1996) in his study found that majority of the women (5.2 percent) had medium participation in activities related to winter vegetable cultivation in Jessore villages.

Chowdhury (2000) in his study found that the majority of women (43%) fell under moderate participation to highly participation (36%) category. Only a few of the respondents have opined in favour of less participation (21%).



Kabir (2001) in his study observed that a large majority (96%) of the participating rural women were involved in rearing poultry followed by vegetable cultivation (65 percent women), and fish culture (27 percent women). The remaining activities were less participated.

Aurangozeb (2002) studied on adoption of integrated homestead farming technologies by the rural women in RDRS. He found that the highest proportion (71 percent) of rural women had high, 21% medium and 8% had low integrated homestead farming technologies.

## **2.2 Relationship between the selected characteristics of the rural women and their involvement in home gardening practices**

### **2.2.1 Age and involvement in home gardening practices**

Islam (2002) in his study showed that age of the women had no significant relationship with their involvement in income generating activities.

Aurangozeb (2002) found that age of the rural women had significant negative relationship with their adoption of integrated homestead farming technologies.

Alam (2001) in his study showed that age of the women had positive significant relationship with participation in agriculture, fisheries and poultry program of BAUEC.

Akhter (2000) in his study found significant positive relationship between age of the women in RDRS client group and their involvement 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 involvement in development activities.

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

Fatema (1998) in her study showed that age of the farm women had no significant relationship with their training need in homestead agricultural production.

Akanda (1994) revealed in his study that age of the rural women had significant positive relationship with their involvement in the cultivation of home gardening.

Islam (1994) showed that age of the women was not significantly related to their extent of involvement in agricultural income generating activities.

Miah *et. al.* (1994) found insignificant relationship between age of the rural women and their time spent in farming activities.

### **2.2.2 Education and involvement in home gardening practices**

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

Auragozeb (2002) observed that education of the rural women had significant positive relationship with their adoption of integrated homestead farming technologies.

Akhter (2000) in his study observed that education the women had significant positive relationship with their involvement in decision making role in the family with regard to development activities.

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

Basak (1997) showed that education of the rural women under BRAC had a significant positive relationship with their impact of involvement in BRAC rural development activities.

Rahaman (1996) observed that level of education of the women had a significant positive relationship with their involvement in rural development activities.

Nahar (1996) mentioned that there was significant positive relationship knowledge of farm women in homestead farming and their education. As the level of education increased, the level of knowledge on homestead farming was also increased. She also concluded that family education also had significant positive influence on the farm women about homestead agriculture.

Devi (1995) found that education of the rural women had a significant relationship with their on labor force participation.

### **2.2.3 Family size and involvement in home gardening practices**

Islam (2002) in his study showed that family size of the women had non-significant relationship with their involvement in income generating activities.

Auragozeb (2002) found that family size of the rural women had non-significant relationship with their adoption of integrated homestead farming technologies.



Alam (2001) in his study showed that family size of the women had non-significant relationship with participation in agriculture, fisheries and poultry program of BAUEC.

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

Roa (1994) reported that rural women's participation in agriculture was positive correlation with the size of the family.

Akanda (1994) mentioned that family size of the rural women had significant positive relationship with their involvement in the cultivation of the fruit trees and vegetable cultivation.

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

#### **2.2.4 Annual family income and involvement in home gardening practices**

Islam (2002) in his study showed 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.

Auragozeb (2002) found that family income of the rural women had significant relationship with their adoption of integrated homestead farming technologies.

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



Akanda (1994) observed that family income had significant positive relationship with their involvement in the cultivation of the fruit trees and vegetable cultivation.

Anwar (1994) found that family income was not associated with the participation of rural youth in agricultural activities. Thakare (1961) and Middleton (1958) also found the same findings from their study.

### **2.2.5 Knowledge on Homestead gardening and involvement in home gardening practices**

Parvin (1993) in her study recommended that knowledge had played a vital role in forming favorable attitudes towards the homestead agricultural production.

Akanda (1994) in his study found that knowledge of rural women had significant positive relationship with their involvement in the cultivation of the fruit trees and vegetable cultivation. But there was no significant difference in the participation of rural women in homestead vegetable cultivation and non-farming activities because of their difference in education.

Parveen (1995) in her study observed that the level of existing knowledge of the farm women on the modern technologies revealed that 58% had moderate knowledge, 35% had high while 7% of the farm women possessed poor knowledge.

Akhter (2000) in his study observed that agricultural knowledge of rural women had significant positive relationship with their involvement in decision making role in the family with regard to development activities.

Ali (1995) in his study found that agricultural knowledge of rural women had significant positive relationship with their attitude towards working in group on agricultural activities.

### **2.2.6 Training experience and involvement in home gardening practices**

Parvin (1993) found that there was a positive relationship between Training of the women and involvement with homestead cultivation. Training increase knowledge and develop awareness of respondents. Training facilities should make available for the women regarding homestead agricultural production activities.

### **2.2.7 Use of information sources and involvement in home gardening practices**

Auragozeb (2002) found that extension media of the rural women had significant positive relationship with their adoption of integrated homestead farming technologies.

Chowdhury (2000) in his study observed that communication exposure of the rural women had no significant relationship with their opinion for involvement in development activities.

Nahar (1996) in his study found that there was a significant relationship in agricultural knowledge of farm women in homestead farming and their level of contact with information sources.

Karim (1993) conducted farm a study that there was a significant difference in the agricultural knowledge of farmers is sugarcane, based on their level of extension contact. Higher the level of extension contact of the farmers, higher was the level of agricultural knowledge in sugarcane cultivation.

Kashem and Halim (1991) in a study concluded that interpersonal communication media such as friends, neighbors, seed, fertilizers and pesticide dealers are the most reliable and trustworthy sources of agricultural information to the farmers.

### **2.2.8 Cosmopolitanness and involvement in home gardening practices**

Ahmed (1977) found no relationship between cosmopolitanness of the farmers and each of the adoption of recommended variety of jute, recommended dose of fertilizers and plant protection measures in jute cultivation.

Latif (1974) in his study found that there was a positive relationship between cosmopolitanness of the framers and their communication exposure.

Karim (1993) found a significant positive relationship between cosmopolitanness of the transplanted Aman rice growers and their adoption of fertilizers.

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

### **2.2.9 Attitude towards home gardening and involvement in home gardening practices**

Rahaman (1999) found significant positive association between attitude of the respondents towards Proshika and their change in income.

Ali (1995) mentioned that agricultural knowledge of the rural women had significant positive relationship with their attitude towards working in group on agricultural activities.



Fatema (1995) in her study showed that the correlation between problem confrontation and attitude of the farm women towards homestead agriculture was negatively significant, i.e. women who had more favorable attitude towards homestead agricultural production; face less problem in homestead agricultural activities.

Islam (1991) conducted a study on attitude of the farmers towards technology and found that non contact differed significantly regarding their attitude towards technology.

Verma (1989) found that there was significant change in attitude of rural women from before training to after in improved marketing tasks. They said that due to gain in knowledge the attitude become more favorable.

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

In scientific research, selection and measurement of variables constitute an important task. The hypothesis of a research while constructed properly contains 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. An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationship to an observed phenomenon. A simple conceptual framework for the study is shown in Fig. 2.1. It anticipates that there are functional relationships of the 10 selected characteristics of the farmers (independent variables) with their Involvement of rural women in home gardening practices (dependent variable).





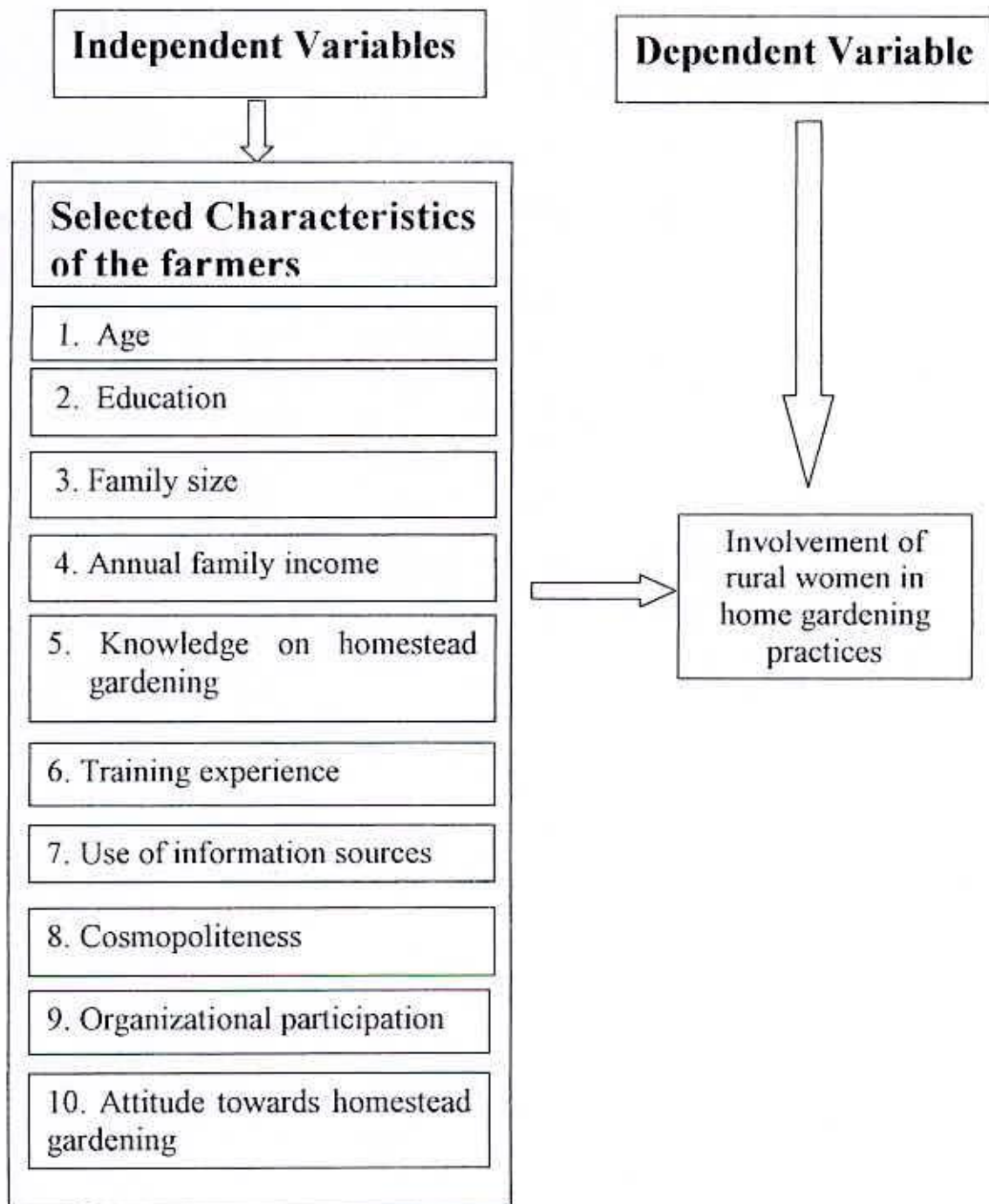
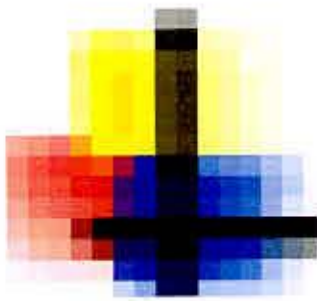


Figure 2.1 Conceptual Framework of the study



# CHAPTER III

## **METHODOLOGY**

## **CHAPTER III METHODS OF THE STUDY**

Method of the study deserves a very careful consideration in conducting scientific research. Importance of study method in conducting any research cannot be undermined. Method of the study enables the researcher to collect valid and reliable information and to analyze them properly to arrive at correct decisions. Keeping this point of view, the researcher took utmost care for using proper methods in all the aspects of this piece of research work. Methods and procedures followed in conducting this study has been described in this chapter.

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

Zanjira Upazila under Shariatpur district was purposefully selected as locale of the study. Naodoba Union was purposively selected among 12 unions of the Zanjira upazila. Naodoba Union consists of twenty villages. Again, out of the twenty villages two village namely Naodoba and Purba Naodoba were randomly selected.

### **3.2 Population and Sampling Design**

An up to date list of all farm family heads of the selected villages were prepared with the help of Sub-Assistant Agricultural Officer. The list comprised of a total of 512 rural women in the study area. These rural women constituted the population of this study. There were 390 rural women in Naodoba and 122 rural women in Purba Naodoba. Twenty percent of the population of each village was randomly selected as representative sample by using random number (kerlinger, 1973). Thus, the sample size for Naodoba was 78 and that of Purba Naodoba was 24 which made the total sample size 102 . In addition to that, 2 percent of the population was selected randomly and proportionately from each of selected villages. Thus, the additional sample, so drawn stood 10 rural women, which were included in the reserve list. In case, the individuals included in the original samples were not available or not found suitable at the time of data collection, the rural women of the reserve list were



used for the purpose. The distribution of the rural women included in the population, sample and those in the reserve list appears in Table 3.1.

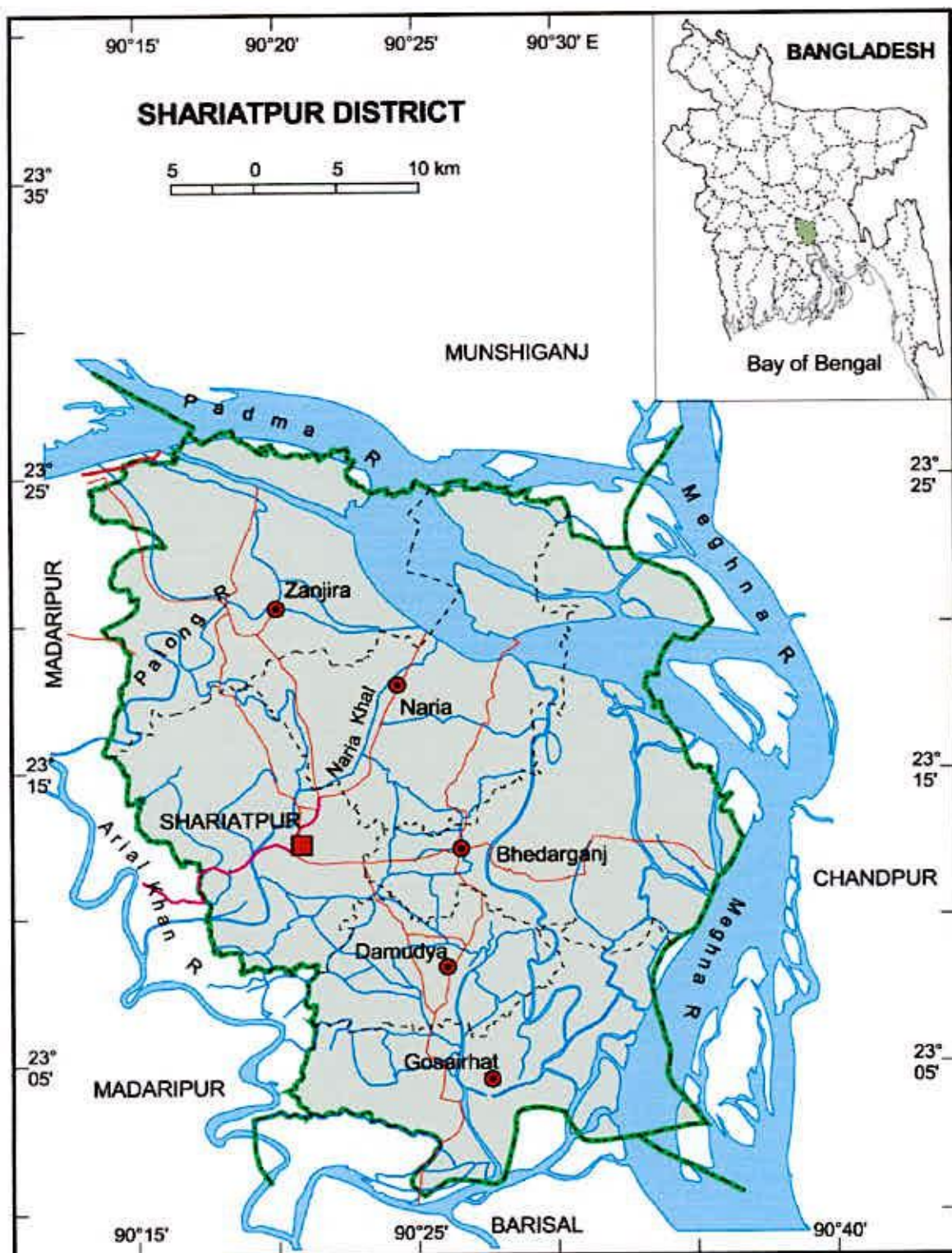


Figure 3.1 A map of Shariatpur District showing the locale of the study



★ = Study area

Figure 3.2 A map of Zanjira Upazila showing the study area



**Table 3.1. Distribution of population and sample of respondents in two selected villages of Naodoba union**

Sl. No.	Name of village	Total number of rural women	Sample size	Number of rural women in the reserve list
1	Naodoba	390	78	8
2	Purba Naodoba	122	24	2
Total		512	102	10

### **3.3 Variables of the Study:**

In a descriptive social research, the selection of variables constitutes an important task. Success of a research to a considerable extent depends on the successful selection of the variables. In this connection, the investigator looked into the literature to widen his understanding about the nature and scope of the variables involved in the research studies. Ezekiel and Fox (1959) stated variable as any measurable characteristics, which can assume varying or different values in successive individual cases. Independent variables are that factor which is manipulated by the experimenter in his attempt to ascertain the relationship to an observed phenomenon. Townsend (1953) stated that dependent variables varies as the experimenter introduces, removes or varies the independent variables.

The researcher keeping in mind took adequate care in selecting the dependent and independent variables of the study. Before selecting variables, the researcher himself visited the study area and talked to the local rural women intimately and was able to observe the various factors of the rural women, which might have influence on their involvement of rural women in home gardening practices in SDS area of Shariatpur district. Based on this experience, literature for the study, discussion with relevant experts and



academicians and also with the research supervisor, the researcher selected the following variables for this study.

Two types of variables were concerned with the study such as

i. Independent variables and

ii. Dependent variable

i. **Independent variables:** The respondents' selected characteristics viz. Age, Education, Family size, Annual family income, Knowledge on homestead gardening, Training experience, Use of information source, Cosmopolitaness, Organizational participation, Attitude towards homestead gardening are selected as independent variables.

ii. **Dependent variable:** Involvement of rural women in home gardening practices is selected as dependent variable.

### 3.4 Measurement of Variables

In order to conduct the study in accordance with the objectives, it was necessary to measure the selected variables. This section contains procedures for measurement of both independent as well as dependent variables of the study. The procedures followed in measuring the variables are presented below.

#### 3.4.1 Measurement of independent Variables

The selected characteristics of the respondent rural women constituted the independent variables of the study. To keep the research manageable, ten independent variables were selected for the study. The procedures of measurement of the selected variables were follows:

#### **3.4.1.1 Age**

The age of a respondent was measured by counting the actual years from his date of birth to the time of interview on the basis of his statement. It was measured in terms of actual years. No fractional year was considered for the study.

#### **3.4.1.2 Education**

Education of a respondent was measured on the basis of his ability to read and write or receiving formal education up to a certain standard. It was expressed in terms of year of schooling. One score was given for passing each level in the educational institution. For example, if the respondent passed the final examination of HSC class, his educational score was given as 12. Similarly if the respondents passed the final examination of class X, his educational score was given as 10. If the respondents did not know how to read and write, his educational score was given as zero. A score of 0.5 was given to a respondent who could sign his name only. If a respondent received education from non-formal institution, her education equivalence score was determine corresponding to the level of her formal schooling.

#### **3.4.1.3 Family size**

Family size of a respondent was determined in terms of actual number of members in his family including himself, his wife, sons, daughters, brothers, sisters, parents and any other person who are living together under the control of one family. The scoring was done by the actual number as mentioned by the respondent. For example, if a respondent had five (5) members in his family then the family size score would be five (5).

#### **3.4.1.4 Annual family income**

Annual family income of a respondent was measured on the basis of total yearly earning from agricultural and other sources (business, service etc)



earned by the respondent himself and other family members. The methods of ascertaining income from different sources were involved with these phases.

#### **3.4.1.5 Knowledge on home gardening**

To measure the knowledge on home gardening of a respondent a set of 18 questions was constructed in the interview schedule. Each respondent was asked to answer all the 18 questions. Out of assigned scores against each question, the summation of obtained scores against 18 questions represented the knowledge on home gardening of a respondent.

Knowledge on home gardening was measured by the total knowledge score about agriculture. The total assigned score was fifty. But, the score of each question was not equal, it was determined according to the extent of difficulty. However, for correct responses to all questions, a respondent could get a total score of 50. While wrong responses to all question he could get zero (0).

#### **3.4.1.6 Training experience**

The Training experience of a respondent woman was measured by counting the actual days of his agricultural training up to the time of interview on the basis of his statement. It was measured in terms of actual days. No fractional day was considered for the study.

#### **3.4.1.7 Use of information sources**

It refers to contact of rural women with some selected information sources and personalities. The use of information sources was measured on the basis of her extent of contact with some selected information sources. The scoring system was as follows:

<b>Sl. No.</b>	<b>Information source</b>	<b>Extent of use of information source</b>	<b>Score assigned</b>
1	Sub-Assistant Agricultural Officer (SAAO)	Not even once 1 time per month 2 times per month 3 times per month	0 1 2 3



2	Agricultural Extension officer (AEO)	Not even once 1-3 times per year 4-7 times per year 8 times per year	0 1 2 3
3	Upazila Agricultural Officer (UAO)	Not even once 1-2 times per year 4-7times per year 8 times per year	0 1 2 3
4	Local leader	Not even once 1-2 times per month 3-4 times per month 5-6 times per month	0 1 2 3
5	Seed and fertilizer dealer	Not even once 1time per month 2 times per month 3 times per month	0 1 2 3
6	Group discussion	Not even once 1-3 times per year 4-9times per year 10-12 times per year	0 1 2 3
7	Result demonstration	Not even once 1 time per 3 years 1time per 2 years 1 time per year	0 1 2 3
8	Method demonstration	Not even once 1 time per 3year 1 time per 2 year 1 time per year	0 1 2 3
9	Agricultural training	Not even once 1time in life 2-3 times in life 4-5 times in life	0 1 2 3
10	Reading farm news in Daily news paper	Not even once 1-2 time per week 3-4 times per week 7 times per week	0 1 2 3
11	Farm radio talk	Not even once 1-2 times per week 3-4 times per week 7 times per week	0 1 2 3
12	Agricultural programs in Television	Not even once 1-2 times per month 3-4 times per month 5-7 times per month	0 1 2 3
13	Agricultural Poster	Not even once 1-2 times per year 3-4 times per year 5-7 times per year	0 1 2 3
14	Agricultural Leaflet	Not even once 1-2 times per year 3-4 times per year 5-7 times per year	0 1 2 3

The use of information sources of a respondent was calculated by adding all the weights the respondents of 14 information sources together. Thus, the use of information sources score of a respondent could range from Zero (0) to 42, where Zero (0) indicating no use of information and 42 indicating highest use of information.

#### **3.4.1.8 Cosmopolitaness**

Cosmopolitaness of a respondent was measured in terms of his nature of visits to the eight different types of places as shown in item number 7 in the interview schedule. The cosmopolitaness was measured by assigning score 4 for visit once per month, 3 for one visit per three month, 2 for one visit per six month, 1 for one visit per one year and 0 for no visit at all. The cosmopolitaness score of the respondents could range from 0 to 28, where 0 indicating no cosmopolitaness and 28 indicating very high cosmopolitaness.

#### **3.4.1.9 Organizational Participation**

Organizational Participation of a respondent was measured by his membership in different social organization for particular period of time. This was measured by participation of a respondent in social organization. For participation, weight was assigned as 0 for no participation, 1 for general member, 2 for executive member and 3 for executive officer for one year of participation. If a respondent is a general member of a cooperative society, executive member of social committee and executive officer of a sports club for subsequent two years, his score of the Organizational Participation would be:  $1 \times 2 + 2 \times 2 + 3 \times 2 = 12$

#### **3.4.1.10 Attitude towards home gardening**

Attitude of the rural women towards home gardening was measured by using a five point Likert type scale. There were four favorable (positive) and four unfavorable (negative) statements against which the respondents indicated whether they “strongly agree”, “agree”, “undecided”, “disagree” and “strongly



disagree”. Score were assigned to the above five responses as 5, 4, 3, 2 and 1 respectively for positive statements and scoring were reversed in case of negative statements. The attitude towards homestead gardening score of a respondent was obtained by adding her score for all the 8 statements.

### 3.4.2 Measurement of dependent variable

The procedure followed in measuring the dependent variable is presented below:

#### **Involvement of rural women in home gardening practices:**

Involvement of rural women in home gardening practices was measured by computing extent of involvement in 14 different vegetables cultivations and 11 selected operations during the time of interview. Scoring was made in the following way for involvement in each vegetable.

$$\text{Involvement score} = \sum \text{OI} + \text{PI}$$

Where,

OI = Operation involvement score x year of involvement in operational activities

PI = Production involvement score

Operational involvement score was computed in the following way:

Nature of involvement	Score assigned
No involvement	0
Rarely involvement	1
Occasional involvement	2
Regular involvement	3

Production score was assigned in the following way:

Duration of production activities	Score assigned
1 year	1
2 years	2
3 years	3
4 years	4
5 years & above	5



The cultivation of vegetable involvement score of a respondent was obtained by the involvement scores in all the operation and production of all vegetables on the basis of her responses. Finally, the overall involvement score of respondent was obtained.

### **3.5 Data Collection Instruments:**

For the purpose of data collection, an interview schedule was prepared. It was prepared keeping the objectives of the study in mind. The schedule contained both open and closed form questions. Direct simple questions were included in the schedule to collect data on the selected dependent and independent variables.

### **3.6 Validity of the Instruments:**

Appropriate scales were developed to measure the selected factors of the respondents. Scales were also developed to ascertain the Involvement in home gardening practices.

### **3.7 Reliability of the Instruments:**

The draft schedule was prepared in Bengali and pre-tested before using it for collection of data.

### **3.8 Pre-testing of the study:**

For pre-test purpose, ten rural women taking from the selected village of the study area was interviewed by using the draft interview schedule. Based on the pre-test experience, necessary corrections, additions, alternations and rearrangements were made in the schedule. Thus, the schedule was prepared for final use. The schedule was prepared in English. The English version of interview schedule was multiplied as per requirements to collect data from the respondents.

### **3.9 Data collection procedure:**

Data were collected personally by the researcher himself through face to face visit to all the selected rural women of Naodoba and Purba Naodoba villages of Zanjira upazila to obtain valid and pertinent information. The researcher made all possible efforts to explain the purpose of the study to the rural women. Rapports were established with the rural women prior to interview and the objectives were clearly explained by using local language to the extent possible. So respondent did not hesitate to furnish proper responses to the questions and statements which were collected during 3<sup>th</sup> November to 10<sup>th</sup> December, 2007. Incase of failure of due to their pre-occupation a review was made with prior appointment. At the time of data collection, the researcher was also aware of side talking and tried to avoid that problem tactfully. The researcher sought the help of the local supervisors for this purpose. Excellent co-operation and co-ordination were obtained from all the respondents.

### **3.10 Data Coding and Tabulating:**

Having consulted with his research supervisor, the investigator prepared a detailed coding plan. All responses in the interview schedule were given numerical coded values. Local units were converted into standard units. All the individual responses to the questions of the interview schedule were transferred to a master sheet to facilitate tabulation.

In case of qualitative data, appropriate scoring technique was followed to convert the data into quantitative forms. These were then tabulated according to the objectives of the study.

For describing the various independent and dependent variables, the respondents were classified into various categories and arranged in simple table for description. These categories were developed for each of the variable by considering the nature of distribution of the data and the general consideration prevailing in the social system. The procedure and the effect of categorization

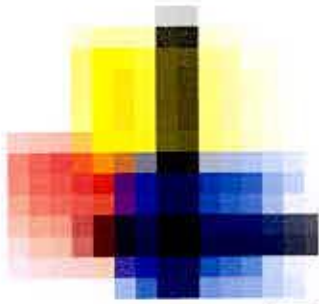
of a particular variable were discussed while describing the variable in the subsequent sections.

The collected data were compiled, coded tabulated in accordance with the objectives of the study. Qualitative data were quantified by means of suitable scoring techniques.

### **3.11 Data Analysis**

The statistical measures such as range, mean, standard deviation, percentage distribution were used to describe both the dependent and independent variables. Tables were also used in presenting data for clarity of understanding. In order to explore the relationships of the selected characteristics of the rural women with their involvement in home gardening practices, the Pearsons Product Moment Correlation Co-efficient was computed. Correlation matrix was also computed to determine the inter relationship among the variables. Five (0.05) percent level of significance with relevant degrees of freedom considered to reject or accept the null hypothesis. If the tabulated value was found greater than the calculated value ( $r$ ) then the null hypothesis could not be rejected, i.e. there was no relationship between the concerned variables. To the contrary if the calculated value ( $r$ ) was higher then the tabulated value then the null hypothesis was rejected.





# CHAPTER IV

## **FINDINGS AND DISCUSSION**



## CHAPTER IV RESULTS AND DISCUSSION

A sequential and detailed discussion on the findings of the study has been presented in this Chapter. The Chapter is divided into three sections. In the first section, independent variables i.e. characteristics of the respondents have been discussed. The second section dealt with dependent variable involvement of rural women in home gardening practices in SDS area of Shariatpur district. The third sections dealt the relationship between the dependent and independent variables have been discussed.

### 4.1 Socio-economic profile of the home gardening practicing women

#### 4.1.1. Age

Age of the rural women was determined by the number of years from his birth to the time of interview. It was found that the age of the respondents ranged from 22 to 78 years, the average being 38.86 years and the standard deviation was 8.6. On the basis of age, the rural women were classified into three categories: "young aged" (up to 34 years), "middle aged" (35 to 55 years) and "old aged (56 years and above) Table 4.1.1 contains the distribution of the respondents according to their age.

**Table 4.1.1 Distribution of the respondents according to their age**

Category	Numbers of respondents	Percent	Mean	Standard deviation
Young aged (up to 35)	40	39.1	38.86	8.623
Middle aged (36-55)	61	58.9		
Old aged (56 and above)	1	1		
Total	102	100		

Data presented in table 4.1.1 indicated that the highest proportion (58.9 percent) of the respondents fell in the young aged category compared to 39.1

percent middle and it was also revealed that 1 percent of the respondents comprised of old-aged categories.

From the table 4.1.1 it is clear that middle and old-aged rural women were generally receptive to new ideas and things. They have a favorable attitude towards trying of new ideas. They were usually influential partner in making decisions regarding farming affairs. The extension agents can make use of these views and opinions in designing their extension activities.

#### 4.1.2 Education

Education of a respondent was measured by the level of his formal education i.e., highest grade (class) passed by him. The education score of the respondents ranged from 0 to 12, the average being 4.96 and the standard deviation was 3.74. Based on their level of education, the respondents were grouped into five categories, “no education” zero (0), “can sign only” (0.5), “primary education” (1-5), “secondary education” (6-10), and above secondary education” (11 and above).

Data presented in Table 4.1.2 indicate that a large proportion 66.6 percent of the respondents are having standard level of education (18.7 percent having “primary education” and 44 percent having “secondary education”) compared to 27.5 percent “can sign only” and 5.9 percent having no education (illiterate)”.

**Table 4.1.2 Distribution of the rural women according to the their level of education**

Level of Education	Numbers of respondents	Percent	Mean	Standard deviation
Illiterate (0)	6	5.90	4.961	3.7428
Can sign only (.50)	28	27.5		
Primary education (1-5)	19	18.7		
Secondary education (6-10)	45	44		
Above secondary education (11 and above)	4	3.9		
Total	102	100		



Women need to have some education in order to use the various agricultural information sources properly and ultimately fall good effect. It is evident that 66.6 per cent of the rural women had education of various degrees from primary to above secondary level and 33.4 per cent have no education in the study area.

#### 4.1.3 Family size

The family size of the rural women ranged from 2 to 11 members, the average being 5.80 with a standard deviation 1.81. On the basis of their family size, the respondents were classified into three categories: “small family” (up to 4 members), “medium family” (5-7 members) and “large family” (8 and above). Table 4.1.3 shows the distribution of the respondents according to their family size.

Data presented in Table 4.1.3 indicate that the large proportion (60.8 percent) of the respondents belonged to the “medium family” category compared to 22 percent belonged to “small family” category and 17.7 percent to “large family” category.

**Table 4.1.3 Distribution of the rural women according to their family size**

Family size category	Numbers of respondents	Percent	Mean	Standard deviation
Small family (Up to 4)	22	21.6		
Medium family (5 to 7)	62	60.8		
Large family (8 and above)	18	17.7	5.80	1.813
Total	102	100		

This finding indicates that more than four fifth (82.4 percent) of the respondents had either small or medium family size. The data also indicate that the average family size (5.8 people) of the respondents of the study area was about equal with the national average of 5.2 (BBS, 2006). This may be due to the consciousness of proper adoption of family planning measures in the study area.

#### 4.1.4 Annual family income

Annual family income was estimated on the basis of total receipt goods expressed in taka and salary from services and money from business. Annual family income of the respondent ranged from TK.25.00 thousand. to TK 65 thousand. The average annual family income was TK 39.84 thousand and standard deviation 10.91. On the basis of annual family income, the respondents were classified into three categories: “low income” (up to TK. 30.00 thousand), “medium income” (TK. 31-50 thousand) and “high income” (above 50.00 thousand). The distribution of the respondents according to their annual family income is shown in Table 4.1.4

Data shown in Table 4.1.4 revealed that highest proportion (66.9 percent) of the respondents had medium annual family income compared to 19.8 percent having high and 13.8 percent under low annual family income.

#### 4.1.4 Distribution of the respondents according to their annual family income ('000' Tk.)

Level of income	Numbers of respondents	Percent	Mean	Standard Deviation
Low income (up to 30)	14	13.8	39.84	10.913
Medium income (>30-50)	68	66.9		
High income (above 50)	20	19.8		
Total	102	100		

The average annual family income of the rural women of the study area was little bit higher than the average per capita annual family income of the country i.e., 444 U. S. dollar (UNICEF, 2006). This might be due to the fact that the respondents or other family members were mainly engaged in farming and they have few other sources of income, such as, selling of labors, small trade, fishing. Since, the greater proportion (86.7 percent) of rural women had medium income to high income. But, they also do not earn from other sources such as service, business etc.



#### 4.1.5 Knowledge on homestead gardening

It referred to the knowledge gained by the women from their environment and also through their own experiences regarding different aspects of agriculture. The knowledge on home gardening scores of the rural women ranged from 23 to 41, against the possible range of zero (0) to 50 with a mean of 31.86 and standard deviation of 4.4. The rural women were classified into three categories on the basis of their agricultural knowledge scores such as (i) low knowledge, (ii) medium knowledge, and (iii) high knowledge (Table 4.1.5).

**Table 4.1.5 Distribution of the rural women according to their knowledge on homestead gardening**

Level of knowledge	Numbers of respondents	Percent	Mean	Standard deviation
Low knowledge (1-27)	18	17.7	31.86	4.419
Medium knowledge (28-36)	62	60.6		
High knowledge (above 36)	22	21.9		
Total	102	100		

Data presented in Table 4.1.5 showed that the highest proportion (60.6 percent) of the rural women had medium knowledge on homestead gardening compared to 17.7 percent of them having low knowledge on gardening and 21.9 percent had high knowledge on homestead gardening. It can be clearly seen from the Table 4.1.5 that majority of the respondents / rural women (82.1 percent) had medium to high knowledge on homestead gardening.

#### 4.1.6 Training experience

Training experience of the rural women ranged from 2 to 5 days, the mean being 3.65 with a standard deviation, of 0.81. Based on their training experience, the rural women were classified into two categories as shown in Table 4.1.6



#### 4.1.6 Distributions of the respondents according to their training experience

Level of experience	Numbers of respondents	Percent	Mean	Standard Deviation
Low experience (up to 2)	8	7.8	3.65	0.816
Medium experience (3-5)	94	92.1		
Total	102	100		

The highest proportion (91.1 percent) of rural women in the study group had medium training experience, while 7.8 percent had low training farming experiences (less than 2 days). SDS arrange training program for rural women and there was huge opportunity remain for arrange long term gardening training program associated with more women on that area.

#### 4.1.7 Use of information sources

Use of information sources scores of the rural women were computed on the basis of their extent of contact with 14 selected information sources. To compute use of information sources scores of the respondents ranged from 12 to 20 with an average 16.27 and the standard deviation of 1.92 against the possible range of 0 to 42. On the basis of use of information sources scores, the respondents were classified into three categories: "very low level of use" (up to 13), "low level of use" (14 to 18) and "medium level of use "(19 - 23). The distribution of the respondent according to their use information sources is shown in Table 4.1.7

#### 4.1.7 Distributions of the respondents according to their use of information sources

Level of use of information sources	Numbers of respondents	Percent	Mean	Standard Deviation
Very low level of use (1-13)	8	7.9	16.27	1.920
Low level of use (14-18)	78	76.4		
Medium level of use (19 - 23)	16	15.6		
Total	102	100		

Data presented in Table 4.1.7 indicate that the highest proportion (76.4 percent) rural women of the study area had use low level of information sources, while 15.6 percent had medium and 7.9 percent had use very low level of information sources.

The findings indicate that most of the respondents (76.4 percent) had use low level of use information sources. It may be due to all the respondents of the study area had use low level of information sources. SDS as well as other NGOs should come up to take appropriate steps for spreading use of information among the respondents.

#### 4.1.8 Cosmopolitaness

Cosmopolitaness scores of the respondents ranged from four 4 to 10 against the possible range of zero 0 to 28 with an average 6.73 and standard deviation of 1.14. On the basis of their cosmopolitaness scores, the respondents were classified into three categories: “very low cosmopolitaness” (up to 5), “low cosmopolitaness” (6-8), “medium cosmopolitaness” (8 - 10). The distribution of the respondents according to their cosmopolitaness is shown in Table 4.1.8.

**Table 4.1.8 Distribution of the respondents according to their cosmopolitaness**

Categories	Numbers of respondents	Percent	Mean	Standard deviation
Very low cosmopolitaness (up to 5)	10	9.8	6.73	1.145
Low cosmopolitaness (6-8)	88	86.2		
Medium cosmopolitaness (9 - 10)	4	3.9		
Total	102	100		

Data contained in Table 4.1.8 indicate that the highest proportions (86.2 percent) of the respondents had “low cosmopolitaness”, while 9.8 percent of the being “very low cosmopolitaness”, and only 3.9 percent under “medium cosmopolitaness”. Data also revealed that majority (90.1. percent) of the



respondents were moderate to low in terms of their cosmopolitanness. None of the respondents was found high cosmopolitanness. As social condition do not support women to travel randomly.

#### 4.1.9 Organizational participation

Organizational participation scores of the respondents were computed on the basis of the extent of participation in different social organizations. Organizational participation of the respondents ranged from five (5) to seven (7). The average was 5.06 with a standard deviation 0.309 against the possible range of zero (0) to 24. On the basis of organizational participation, the women were classified into two categories: “very low participation” (1-5), “low participation” (5 - 7).

Data presented in the table 4.1.9 show that the highest proportion (96.1 percent) of the respondents had very low participation in organizations compared to 3.9 percent having low organizational participation.

#### 4.1.9 Distributions of the respondents according to their organizational participation

Level of participation	Numbers of respondents	Percent	Mean	Standard Deviation
Very low participation (up to 5)	98	96.1		
Low participation (6-7)	4	3.9	5.06	.309
Total	102	100		

The findings indicate that most of the rural women (96.1 percent) had very low social participation. There was no respondent with moderate or high level of participation. It may be due to respondents of the study area are mostly engaged in their farm works and had no opportunity to participate in other social activities. Organizational participation was very much important for self actualization as well as involvement with technology. However, no one from them found to maintain high and medium organizational participation.



#### 4.1.10 Attitude towards home gardening

Attitude score of the respondents was 18 to 28 against the possible range of zero (0) to 40. However, the average was 23.74 and the standard deviation 2.98. Based on their attitude scores, the respondents were classified into three categories: “low favorable attitude” (1 -20), “moderately favorable attitude” (21-26), and “highly favorable attitude” (above 26). The distribution of the respondents according to their attitude is shown in Table 4.1.10.

Data contained in table 4.1.10 indicate that majority had medium attitude (59.8 percent) as compared to (19.6 percent) low attitude and 20.6 percent had highly favorable attitude towards the homestead gardening.

**Table 4.1.10 Distribution of the respondents according to their Attitude towards home gardening**

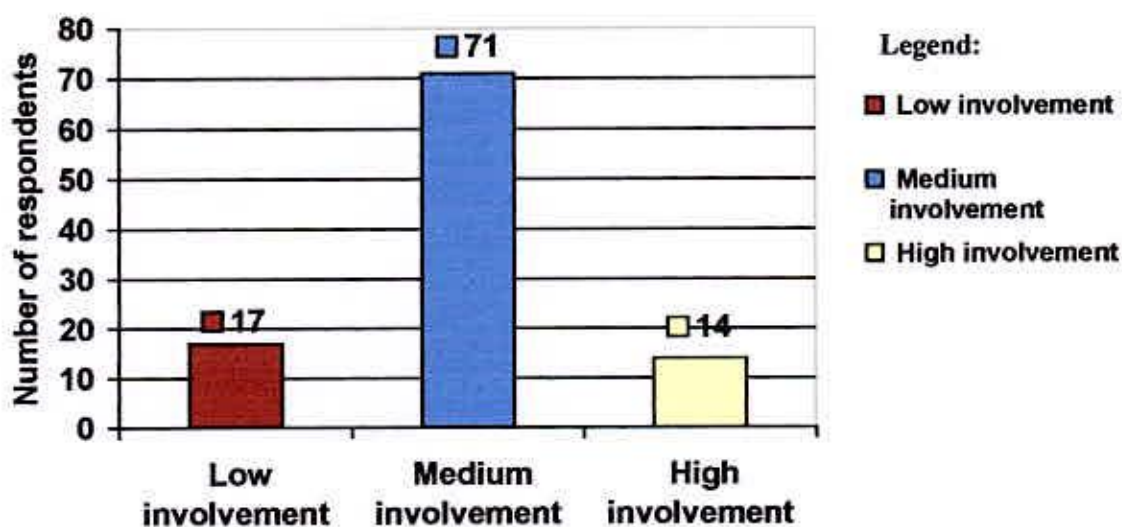
Level of attitude	Numbers of respondents	Percent	Mean	Standard deviation
Low favorable attitude ( 0-20)	20	19.6		
Moderately favorable attitude ( 21- 26 )	61	59.8	23.74	2.982
Highly favorable attitude (above 26)	21	20.6		
Total	102	100		

Education and knowledge are considered as major factors for influencing, motivating and changing persons' attitude. Again, contact with information sources results positive changes in attitude towards productive activities and new technologies. So, more extension agents should be employed by GOs and NGOs to reach the rural women to involve them in development activities.

#### 4.2 Extent of involvement of rural women in home gardening practices.

The extent of involvement of rural women in home gardening practices observed score of the respondents ranged from 45 to 67 against the possible range of 0 to 103. The mean and the standard deviation were 57.08 and 4.38 respectively. The respondents were classified into three categories on the basis of their extent of involvement of rural women in home gardening practices such as (i) low involvement (up to 52), (ii) medium involvement (53 – 61) and (iii) high involvement (above 61).

Data shows that 17 (16.7 percent) respondents had low involvement, 71 (69.6 percent) respondents had medium involvement and 14 (13.7 percent) had high involvement level out of 102 respondents. The relative proportion of the respondents having their perceived impact level are shown in Figure 4.2.1



**Fig 4.2.1 Distribution of the respondents according to their extent of involvement of rural women in home gardening practices**

Figure indicates that majority (69.6%) of the respondents had Medium involvement on homestead gardening practices and only 13.7 percent had high involvement on homestead gardening practices.



GOs as well as NGOs should take proper step for overcoming the present situation. Communication planners should be careful to include agricultural information through various media for enhances behavior of the rural women for receiving new technologies and modern cultural practices in future.

#### 4.3 Relationships between the selected characteristics of the rural women and their involvement in home gardening practices

This section deals with the relationships with ten selected characteristics of the rural women and their involvement in home gardening practices. The selected characteristics constituted independent variables and involvement of rural women in home gardening practices are considered as dependent variable.

Pearson's product moment correlation co-efficient "r" was used to test the hypotheses concerning the relationships between two variables 0.05 level of significance was used as the basis for acceptance or rejection of a hypothesis.

The correlations co-efficient relationships results between the selected characteristics of the respondents/ rural women and their involvement of rural women in home gardening practices is shown in Table 4.3 and the correlation matrix is given in the APPENDIX-II.

**Table 4.3 Correlation co-efficient of the selected characteristics of the respondents/rural women and their involvement in home gardening practices**

Dependent variable	Independent variables	Computed value of "r"	Table value of "r" at 100 degree of freedom	
			5%	1%
<b>Involvement of rural women in home gardening practices</b>	Age	-0.196*	0.195	0.254
	Education	0.212*		
	Family size	-0.062 <sup>NS</sup>		
	Annual family income	-0.256**		
	Knowledge on Home gardening	0.232*		
	Training experience	0.103 <sup>NS</sup>		
	Use of information source	0.270**		
	Cosmopolitaness	0.106 <sup>NS</sup>		
	Organizational participation	0.129 <sup>NS</sup>		
	Attitude towards home gardening	0.334**		

NS = Not Significant

\* = Significant at 0.05 level

\*\* = Significant at 0.01 level



### **4.3.1 Relationship between age of the rural women and their involvement in home gardening practices**

In order to determine the relationship between age of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*“There is no relationship between age of the rural women and their involvement in home gardening practices”.*

The co-efficient of correlation between the concerned variables was computed and found to be -0.196 as shown in table 4.3 which led to the following observation regarding the relationship between the two variables under consideration:

- a) The relationship between the two variables was found to be negative.
- b) The computed value of “r” ( $r = -0.196$ ) was found to be greater than the table value ( $r = \pm 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.
- c) The co-efficient of correlation between the concerned variable was significant at 0.05 level of probability.
- d) The null hypothesis was rejected.

The findings imply that the age of the rural women had a significant and negative relationship with their involvement in home gardening practices. This meant the young aged women were more involved. in home gardening practices than the older women. As because they have more risk taking ability than the old aged women.

#### **4.3.2 Relationship between education of the rural women and their involvement in home gardening practices**

The relationship between level of education of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*"There is no relationship between education of the rural women and their involvement in home gardening practices".*

Computed value of the co-efficient of correlation between level of education of the rural women and their involvement in home gardening practices was found to be +0.212 as shown in Table 4.3. The following observations were recorded regarding the relationships between the two variables on the basis of the co-efficient of correlation:

- a) The relationship showed a positive trend.
- b) Significant relationship was found between the two variables.
- c) The computed value of "r" ( $r = +0.212$ ) was found to be larger than table value ( $r = \pm 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.
- d) The co-efficient of correlation between the concerned variable was not significant at 0.05 level of probability.
- e) The null hypothesis was rejected.

The researcher concluded that level of education of the rural women had a positive significant relationship with their involvement in home gardening practices. This study indicates that involvement in home gardening practices had significantly increased with increased education. Similar findings were also observed by Islam (2002), Auragozeb (2002), Akhter (2000) Chowdhury (2000), and Nahar (1996).

#### **4.3.3 Relationship between family size of the rural women and their involvement in home gardening practices**

The relationship between family size of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*"There is no relationship between farm size of the rural women and their involvement in home gardening practices".*

Computed value of the co-efficient of correlation between family size of the rural women and their involvement in home gardening practices was found to be -0.062 as shown in Table 4.3. The following observations were recorded regarding the relationships between the two variables on the basis of the co-efficient of correlation:

- a) The relationship showed a tendency in the negative direction between the concerned variables.
- b) The computed value of "r" ( $r = -0.062$ ) was found to be smaller than table value ( $r = \pm 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.
- c) The co-efficient of correlation between the concerned variable was insignificant at 0.05 level of probability.
- d) The null hypothesis could not be rejected.

The finding demonstrates that the family size of the rural women had no significant and negative relationship with their involvement in home gardening practices. This study indicates that involvement in home gardening practices significantly not increased with increased family size. Islam (2002), Auragozeb (2002) Alam (2001) and Chowdhury (2000) observed also similar findings.



#### **4.3.4 Relationship between annual family income of the rural women and their involvement in home gardening practices**

The relationship between annual family income of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*“There is no relationship between annual family income of the rural women and their involvement in home gardening practices”.*

Computed value of the co-efficient of correlation between annual family income of the rural women and their involvement in home gardening practices was found to be -0.256 as shown in Table 4.3. The following observations were recorded regarding the relationships between the two variables on the basis of the co-efficient of correlation:

- a) The relationship showed a negative trend.
- b) Low significant relationship was found between the two variables.
- c) The computed value of “r” ( $r = -0.256$ ) was larger than table value ( $r = \pm 0.254$ ) with 100 degrees of freedom at 0.01 level of probability.
- d) The co-efficient of correlation between the concerned variables was significant at 0.01 level of probability.
- e) The concerned null hypothesis was rejected.

The researcher concluded that annual family income of the family of rural women had a negative significant relationship with their involvement in home gardening practices. This means that with the increase or decrease of annual family income, involvement in home gardening practices is decreased or increased respectively. Similar findings were also observed by Nahar (2000).

#### **4.3.5 Relationship between knowledge on homestead gardening of the rural women and their involvement in home gardening practices**

The relationship between knowledge on homestead gardening of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*"There is no relationship between knowledge on homestead gardening of the rural women and their involvement in home gardening practices".*

Computed value of the co-efficient of correlation between knowledge on homestead gardening of the rural women and their involvement in home gardening practices was found to be +0.232 as shown in Table 4.3. The following observations were recorded regarding the relationships between the two variables on the basis of the co-efficient of correlation:

- f) The relationship showed a positive trend.
- g) Significant relationship was found between the two variables.
- h) The computed value of "r" ( $r = +0.232$ ) was found to be larger than table value ( $r = \pm 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.
- i) The co-efficient of correlation between the concerned variables was significant at 0.05 level of probability.
- j) The concerned null hypothesis was rejected.

The researcher concluded that knowledge on homestead gardening of the rural women had a positive significant relationship with their involvement in home gardening practices. This means that with the increase of knowledge on homestead gardening of the rural women, the involvement in home gardening practices is also increased. Similar findings were also observed by Paveen (1993), Akanda (1994), Akter (2000) and Ali (1995).



#### **4.3.6 Relationship between training experience of the rural women and their involvement in home gardening practices**

In order to determine the relationship between training experience of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*“There is no relationship between training experience of the rural women and their involvement in home gardening practices”.*

The co-efficient of correlation between the concerned variables was computed and found to be 0.103 as shown in table 4.3 which led to the following observation regarding the relationship between the two variables under consideration:

- a) The trend of relationship between the two variables was direction and a very low relationship was found between the two variables.
- b) The computed value of “r” ( $r= 0.103$ ) was found to be smaller than the table value ( $r= \pm 0.195$ ) with 100 degrees of freedom at 0.05 level probability.
- c) The co-efficient of correlation between the concerned variable was insignificant at 0.05 level of probability.
- d) The null hypothesis could not be rejected.

Based on the above findings, the researcher concluded that training experience of the rural women had no significant relationship with their involvement in home gardening practices. This means that with the increase and decrease of training experience of the rural women had its no effect with their involvement in home gardening practices.





#### **4.3.7 Relationship between use of information sources of the rural women and their involvement in home gardening practices**

The relationship between use of information sources of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*“There is no relationship between use of information sources of the rural women and their involvement in home gardening practices”.*

Computed value of the co-efficient of correlation between use of information sources of the rural women and their involvement in home gardening practices was found to be +0.270 as shown in Table 4.3. The following observations were recorded regarding the relationships between the two variables on the basis of the co-efficient of correlation:

- a) The relationship showed a positive trend.
- b) Highly significant relationship was found between the two variables.
- c) The computed value of “r” ( $r = +0.270$ ) was found to be larger than table value ( $r = \pm 0.254$ ) with 100 degrees of freedom at 0.01 level of probability.
- d) The co-efficient of correlation between the concerned variables was significant at 0.01 level of probability.
- e) The concerned null hypothesis was rejected.

The researcher concluded that use of information sources of the rural women had a positive significant relationship with their involvement in home gardening practices. This means that with the increase use of information sources of the rural women, their involvement in home gardening practices is also increased, decrease make decreases and the changing rate is highly significant. Similar findings were also observed by Auragozeb (2002), Nahar (1996) and Karim (1993).

#### **4.3.8 Relationship between cosmopolitanism of the rural women and their involvement in home gardening practices**

The relationship between cosmopolitanism of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*“There is no relationship between cosmopolitanism of the rural women and their involvement in home gardening practices”.*

Computed value of the co-efficient of correlation between cosmopolitanism of the rural women and their involvement in home gardening practices was found to be +0.106 as shown in Table 4.3. The following observations were recorded regarding the relationships between the two variables on the basis of the co-efficient of correlation:

- a) The relationship showed a positive trend.
- b) There was no significant relationship was found between the two variables.
- c) The computed value of “r” ( $r = +0.106$ ) was found to be smaller than table value ( $r = \pm 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.
- d) The co-efficient of correlation between the concerned variables was insignificant at 0.05 level of probability.
- e) The null hypothesis could not be rejected.

The researcher concluded that cosmopolitanism of the rural women had a no significant relationship with their involvement in home gardening practices. This means that with the increase or decrease of level of cosmopolitanism of rural women, it has no significant effect of involvement in home gardening practices.



#### **4.3.9 Relationship between organizational participation of the rural women and their involvement in home gardening practices**

The relationship between organizational participation of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

*"There is no relationship between organizational participation the rural women and their involvement in home gardening practices".*

Computed value of the co-efficient of correlation between organizational participation of the rural women and their involvement in home gardening practices was found to be +0.129 as shown in Table 4.3. The following observations were recorded regarding the relationships between the two variables on the basis of the co-efficient of correlation:

- a) The relationship showed a positive trend.
- b) There was no significant relationship between the two variables.
- c) The computed value of "r" ( $r = +0.129$ ) was found to be smaller than table value ( $r = \pm 0.195$ ) with 100 degrees of freedom at 0.05 level of probability.
- d) The co-efficient of correlation between the concerned variables was insignificant at 0.05 level of probability.
- e) The null hypothesis could not be rejected.

The researcher concluded that organizational participation of the rural women had insignificant relationship with their involvement in home gardening practices. This means that with the increase or decrease of organizational participation of rural women has no effect on their involvement in home gardening practices.

#### **4.3.10 Relationship between attitude of the rural women and their involvement in home gardening practices**

The relationship between attitude of the rural women and their involvement in home gardening practices, the following null hypothesis was tested:

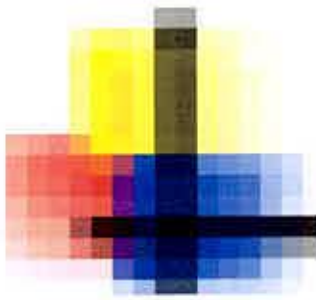


*"There is no relationship between attitude of the rural women and their involvement in home gardening practices".*

Computed value of the co-efficient of correlation between attitude of the rural women and their involvement in home gardening practices was found to be +0.334 as shown in Table 4.3. The following observations were recorded regarding the relationships between the two variables on the basis of the co-efficient of correlation:

- a) The relationship showed a positive trend.
- b) Highly significant relationship was found between the two variables.
- c) The computed value of "r" ( $r = +0.334$ ) was found to be larger than table value ( $r = \pm 0.254$ ) with 100 degrees of freedom at 0.01 level of probability.
- d) The co-efficient of correlation between the concerned variables was significant at 0.01 level of probability.
- e) The concerned null hypothesis was rejected.

The researcher concluded that attitude of the rural women had a positive significant relationship with their involvement in home gardening practices. This means that with the increase of attitude of the rural women, involvement in home gardening practices in getting agricultural information is also increased. Similar findings were also observed by Ali (1995), Rahaman (1999).



# CHAPTER V

## **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

**CHAPTER V**  
**SUMMARY OF FINDINGS, CONCLUSIONS AND**  
**RECOMMENDATIONS**

**5.1 Summary of findings**

**5.1.1 Socio-economic profile of the home gardening practicing rural women**

Findings in respect of the selected characteristics of the rural women are summarized below:

**Age:**

Fifty nine percent of the respondents were middle aged, 39 percent were young and only 1 percent were old respondents. This indicates that the study took place in an area where majority were considerable among the young aged group.

**Education:**

Six percent of the women had no schooling, 44 percent had secondary, 18.7 percent had primary education and only 3.9 percent had above secondary level of education. It revealed from the study that majority of the rural women were literate.

**Family size:**

Among the respondents, 21.6 percent had small family, 60.8 percent had medium family and 17.7 percent had large family.

**Annual family income:**

Almost fourteen percent of the total rural women had medium income compared to 66.9 percent of them having low income and 19.8 percent high income.





**Knowledge on homestead gardening:**

The highest proportion (60.6%) of the rural women had medium knowledge on homestead gardening as compared to 17.7% with low knowledge on homestead gardening and 21.9 percent with high knowledge on homestead gardening.

**Training experience:**

The highest proportion (92.1%) of the rural women had medium training experience followed by low farming experience (7.8%) and nobody had high training experience.

**Use information sources:**

Almost seventy six percent respondents had low level of use information sources compared to 7.9 percent having very low and 15.6 percent of the respondent had medium level of use information sources.

**Cosmopolitaness:**

The highest proportion (86.2%) of the rural women had low cosmopolitaness compared to 3.9% having medium cosmopolitaness and 9.8% having very low cosmopolitaness.

**Organizational participation:**

It was found that about ninety six percent of the rural women had very low participation and 3.9 percent of them had low participation.

**Attitude towards home gardening:**

The highest proportion (59.8%) of the rural women had moderately favorable attitude, 19.6 percent had low favorable attitude and only 20.6 percent rural women had high favorable attitude.

### **5.1.2 Extent of involvement of rural women in home gardening practices**

Involvement of rural women in home gardening practices was measured by score. Involvement of women was measured by calculating by computing production involvement in 14 different vegetables and involvement in 11 selected operations methods with duration. The highest proportion, 69.6 percent respondents had Medium involvement, 16.7 percent respondents had Low involvement, and 13.7 percent was found in High involvement level out of 102 respondents. Thus, an overwhelming majority of the rural women had low to medium involvement level.

### **5.1.3 Relationships between the socio-economic profiles of the home gardening practicing respondents with their extent of involvement in home gardening practices:**

Education, family size, training experience, cosmopolitaness and organizational participation had no significant relationship with their involvement of rural women in home gardening practices.

Age, annual family income, knowledge on homestead gardening, use of information sources and attitude towards home garden of the rural women had significant positive relationship with their involvement of in home gardening practices.

## **5.2 Conclusions**

Following conclusions were drawn on the basis of findings and their logical interpretation in the light of other relevant facts:

1. The study indicated that 68.63 percent of the respondents had medium and 31.37 percent had low involvement in home gardening practices. The findings lead to the conclusion that the respondents had not at satisfactory level of involvement in home gardening practices.



2. The study indicated that majority (99 percent) of the respondents comprised of either young or middle-aged categories and its relationship with their involvement in home gardening practices was negatively significant. It may therefore be concluded that extension teaching should be given to young and middle age categories of women especially on the young aged rural women because they are more receptive than the older.
3. The statistical analysis showed a significant positive relationship of education of the rural women with their involvement in home gardening practices. Therefore, it may be concluded that education plays an important role in increasing the involvement of rural women in home gardening practices.
4. Family size of the respondents had negative insignificant relationship with the involvement in home gardening practices. This fact leads to the conclusion that larger family size of the respondents did not encourage them for involving with the home gardening practices.
5. Annual family income of the respondents had negative and highly significant relationship with the involvement in home gardening practices. It may be concluded that financial hardships of the respondents allow them to access involvement in home gardening practices.
6. A significant and positive relationship between knowledge on home garden of the respondents and their involvement in home gardening practices implied that those respondents had more knowledge on home gardening; they have better involvement in home gardening practices.
7. Use of information sources by the respondents had positive highly significant relationship with the involvement in home gardening practices. This fact leads to the conclusion that higher use of information sources



encourage the respondents and leads them to higher involvement in home gardening practices.

8. Eighty six percent of the respondents had low cosmopolitaness and the respondents had insignificant relationship with the involvement in home gardening practices. Women of that society were not allowed to travel much. Therefore, it may be concluded that special attention need not to be given in any particular group for improving their cosmopolitaness as well as involvement in home gardening practices.
9. Organizational participation of the respondents had insignificant relationship with their involvement in home gardening practices. Ninety six percent respondents had very low organizational participation. It may be due to the social condition. The finding leads to the conclusion that special attention need not to be given in any group for improving involvement in home gardening practices.
10. Attitude towards home garden of the respondents had highly significant positive relationship with their involvement in home gardening practices. Therefore, it may be concluded that special attention need to be given to improve attitude of respondents towards home gardening.

### **5.3 Recommendations**

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

On the basis of the findings and conclusion of the study, the following recommendations for policy implication are made:

1. The study reveals that the rural women having better education could improve the existing status. As fifty two percent of the rural women had no education to primary level of education, non-formal education facilities (i.e. mass education program) should be extended to them by Extension Agents of both GOs and NGOs and also need to take steps for widening literacy program for homestead gardening.

2. Knowledge on home gardening showed a positive and significant relationship with their involvement in home gardening practices. It is recommended that GOs and NGOs should arrange adequate programs for the respondents and other instructional methods to increase their knowledge on home gardening.
3. Attitude towards home garden of the respondents had a significant and positive relationship with their involvement in home gardening practices. Therefore, GOs and NGOs should take proper steps for rural women towards home gardening that makes them to adopt.
4. Use of information sources of the respondents had a significant and positive relationship with their involvement in home gardening practices. Using information sources, women become aware of the recent information on the various aspects of cultivation. Consequently they become motivated to adopt modern technologies due to influence by the different information sources. Therefore, government should made information sources easily reachable and accessible to the rural women.
5. Extension services should be strengthened particularly for rural women. Due to social system and religion, rural women are reluctant to come in contact with male extension worker. So, more women extension workers should be engaged for effective and successful implementation of the development activities.
6. Local extension workers should build rapport with the rural women.
7. Extension worker must be well trained on the newly released vegetable cultivation practices as well as the running technologies so as to fit them as a credible source of information about the techniques and to make them skilled to implement/solve any problem of the rural women.
8. Different kinds of agricultural printed materials such as poster, leaflet, handbook, and booklet should be distributed among the rural women to encourage the involvement.



### **5.3.2 Recommendations for future study**

Short term and sporadic study being conducted in some specific location cannot provide all information for proper understanding about different activities and related matters. Future studies should be undertaken covering more dimensions in the related matters. The following recommendations are suggested in this connection:

1. It is strongly felt that study of this nature be replicated in other parts of Bangladesh. This recommendation is made because the study area at Zanjira Upazilla in Shariatpur district is not typical of the situation in the entire country.
2. This study investigated the effects of ten characteristics of the respondents on their involvement in home gardening practices. Therefore, it is recommended that further study should be conducted involving other characteristics (farm facilities, social status, marketing facilities etc.) in this regard to better interpret the unexplained variations.
3. Similar study should also be replicated in future for studying any change of pattern regarding involvement in home gardening practices among the same population of the present study area to arrive at generalizations for policy implications.
4. On the basis of the characteristics pattern of farming population, more researches should be conducted to investigate the comparative involvement in home gardening practices with other extension method and also identify the factors influencing involvement in home gardening practices, its utilization as well as involvement in home gardening practices.



5. This study was conducted on female rural people but male rural people are equally important. So, a similar study may be conducted with male rural people.
  
6. In this study, only the survey method (quantitative tool) was used for collection of data. It is recommended to conduct further research using some other qualitative tools (eg. Focus group discussion (FGD), case study, problem free analysis etc.) in order to achieve more accuracy of information.

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## APPENDIXES-I

### (English version of the interview schedule)

Department of Agricultural Extension and Information System  
Sher-e- Bangla Agricultural University  
Sher-e- Bangla Nagor, Dhaka-1207.

#### INTERVIEW SCHEDULE FOR A RESEARCH STUDY ON

INVOLVEMENT OF RURAL WOMEN IN HOME GARDENING  
PRACTICES IN SDS AREA OF SHARIATPUR DISTRICT

#### SL.No.

Name of the respondent : \_\_\_\_\_  
Village : \_\_\_\_\_  
Union : \_\_\_\_\_  
Upazilla : \_\_\_\_\_  
District : \_\_\_\_\_

(Please answer the following questions)

1. Age : How old are you?-----Years.

#### 2. Education:

Please mention your educational status

a) Can't read and write : \_\_\_\_\_  
b) Can sign only : \_\_\_\_\_  
c) Have passed class : \_\_\_\_\_

#### 3. Family size:

Please mention your total family members \_\_\_\_\_

#### 4. Annual family income:

Please mention your last year annual family income from the following sources

SL No.	Sources of income	Amount(TK)
1	Agriculture	
2	Business	
3	Service	
4	Others (If any)	
Total		



### 5. Knowledge on Home Gardening:

Please answer the following questions

SL No.	Questions	Score	
		Weighted	Obtained
1.	Name five high yielding varieties of vegetables.	5	
2.	Name five varieties of vegetables suitable for summer season.	5	
3.	Name two important diseases of tomato.	2	
4.	Mention two major functions of urea on vegetables.	2	
5.	Mention two major functions of TSP on vegetables.	4	
6.	State two major Functions of MP on vegetables.	2	
7.	Name four common fertilizers available at your local market.	4	
8.	What do you mean by balanced fertilizer?	2	
9.	What do you mean by organic fertilizer?	2	
10.	Mention the component of compost.	2	
11.	Mention the name of three vegetables in where green manure can be used.	3	
12.	Mention recommended fertilizer dose of urea, TSP and MP in vegetable garden.	3	
13.	Mention three harmful insects of your area.	3	
14.	Mention two important disease of vegetables.	2	
15.	Name three insecticides available in your local market.	3	
16.	Mention two important diseases of cucumber.	2	
17.	Name two modern varieties of potato.	2	
18.	Name two modern varieties of tomato.	2	
	Total	50	

### 6. Training Experience:-

Sl. NO.	Name of the training	Organizer	Duration of training (day)
1			
2			
3			
4			
5			

### 7. Use of information sources:-

Sl. No.	Information source	Extent of use of information sources			
		Regularly	Occasionally	Rarely	No association
1	Sub-Assistant Agricultural Officer (SAAO)	3 times per month	2 times per month	1 times per month	
2	Agricultural Extension officer (AEO)	8 times per year	4-7 times per year	1-3 times per year	
3	Upazila Agricultural Officer (UAO)	8 times per year	4-7times per year	1-2 times per year	
4	Local leader	5-6 times per month	3-4 times per month	1-2 times per month	
5	Seed and fertilizer dealer	3 times per month	2 times per month	1time per month	
6	Group discussion	7-9 times per year	4-6 times per year	1-3 times per year	
7	Result demonstration	1 time per year	1time per 2 years	1 time per 3 years	
8	Method demonstration	1 time per year	1 time per 2 year	1 time per 3year	
9	Agricultural training	4-5 times in life	2-3 times in life	1time in life	
10	Reading farm news in Daily news paper	7 times per week	3-4 times per week	1-2 time per week	
11	Farm radio talk	7 times per week	3-4 times per week	1-2 times per week	
12	Agricultural programs in Television	5-7 times per month	3-4 times per month	1-2 times per month	
13	Poster	5-7 times per year	3-4 times per year	1-2 times per year	
14	Leaflet	5-7 times per year	3-4 times per year	1-2 times per year	

### 8. Cosmopolitaness

Please mention your frequency of visits of the following places

SL No	Place of visit	Frequency of visit				
		Times/ 1month (4)	Times/ 3 months (3)	Times/ 6 months (2)	Times/ 1 year (1)	Not at all (0)
1	Own Union					
2	Other Unions					
3	Own Upazilla					
4	Other Upazilla					
5	Own District					
6	Others District					
7	Capital city					

### 9. Organizational Participation

Please indicate the nature of your participation in the following organizations

SL No	Name of the organization	Nature and duration of participation (year)			
		No participation (0)	General member (1) & duration	Executive committee member (2) & duration	Office bearer of executive committee (3)& duration
1	Farmers co-operative samity				
2	Union Parisad				
3	Women youth club				
4	School / Madrasha committee				
5	Religious committee				
6	Bazar committee				
7	Seed fertilizer pesticide dealers association				
8	NGOs				
9	Others				



### 10. Attitude towards home gardening:

SL. NO.	Statement	Nature of opinion				
		SA	A	UD	DA	SDA
1 (+)	Vegetable cultivation in the homestead area is essential for family nutrition.					
2 (-)	Vegetable cultivation in the homestead area is an extra botheration to me, hence I try to avoid it					
3 (+)	Each farm women should cultivate winter vegetable because vegetables cultivation is easier than other seasons					
4 (-)	Farm women are not interested to cultivate winter vegetables due to lack of irrigation					
5 (+)	Vegetable should cultivate in summer because this season vegetables are not available					
6 (-)	Farm women farmer are not interested to cultivate vegetables in summer as it is difficult to do cultural operation practices					
7 (+)	Intensive vegetables cultivation in homestead is a good technique that meets requirement of the family around the year and also provide some income					
8 (-)	Proper environment is not available all the year round for vegetables cultivation					

Note: SA- strongly agree, A = Agree, UD = Undecided, DA = Disagree, SDA- Strongly disagree.



12. Involvement of rural women in home gardening practices:

i) Please indicate your extent of involvement in home gardening practices:

SL. NO.	Name of the vegetables	Extent of involvement				
		1 year	2 years	3 years	4 years	5 years & above
1	Cauliflower					
2	Cabbage					
3	Brinjal					
4	Potato					
5	Tomato					
6	Kholrabi					
7	Sweet gourd					
8	Pointed gourd					
9	Bitter gourd					
10	Teasle gourd					
11	Ridged gourd					
12	Snake gourd					
13	Okra					
14	Turnip					

ii) Please indicate your extent of involvement in the following operations of rural women in home gardening practices:

SL. NO.	Name of the operations	Extent of involvement year			
		Regularly(3)	Occasionally(2)	Rarely (1)	Not at all(0)
1	Bed preparation				
2	Seed sowing				
3	Fertilizer application				
4	Irrigation				
5	Drainage				
6	Mulching				
7	Disease control				
8	Weeding				
9	Insect control				
10	Seed collection				
11	Seed preservation				

Thank you

Date:

-----  
Signature of the interviewer

## Appendixes-II

Correlations

	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X <sub>9</sub>	X <sub>10</sub>	X <sub>11</sub>
X <sub>1</sub>	1	-.125	.112	.081	-.002	.001	-.141	-.085	-.190	-.102	-.296**
X <sub>2</sub>	-.125	1	.073	.122	.309**	-.128	.010	-.371**	.105	-.016	.212*
X <sub>3</sub>	.112	.073	1	.318**	-.048	-.154	-.081	.088	.056	-.066	-.020
X <sub>4</sub>	.081	.122	.318**	1	.011	-.295**	.002	.063	-.185	-.271**	-.237*
X <sub>5</sub>	-.002	.309**	-.048	.011	1	-.200*	.167	.114	.107	-.053	.232*
X <sub>6</sub>	.001	-.128	-.154	-.295**	-.200*	1	-.171	.001	.083	.226*	.012
X <sub>7</sub>	-.141	.010	-.081	.002	.167	-.171	1	.147	-.161	-.053	.290**
X <sub>8</sub>	-.085	-.371**	.088	.063	.114	.001	.147	1	.102	-.036	.114
X <sub>9</sub>	-.190	.105	.056	-.185	.107	.083	-.161	.102	1	-.069	.164
X <sub>10</sub>	-.102	-.016	-.066	-.271**	-.053	.226*	-.053	-.036	-.069	1	.319**
X <sub>11</sub>	-.196*	.212*	-.062	-.256**	.232*	.103	.270**	.106	.129	.334**	1

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

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

X<sub>1</sub>=Age

X<sub>7</sub>= Use of information sources

X<sub>2</sub>= Education

X<sub>8</sub>= Cosmopolitaness

X<sub>3</sub>= Family size

X<sub>9</sub>= Organizational participation

X<sub>4</sub>= Annual family income

X<sub>10</sub>= Attitude towards home gardening

X<sub>5</sub>= Knowledge on Home gardening

X<sub>11</sub>= Innovativeness of rural women home gardening

X<sub>6</sub>= Training experience

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