COMMUNICATION EXPOSURE OF RURAL WOMEN REGARDING HOMESTEAD GARDENING

ROKEYA KHATUN

DEPARTMENT OF AGRICULTURAL EXTENSION & INFORMATION SYSTEM

SHER-E-BANGLA AGRICULTURAL UNIVERSITY, DHAKA-1207

June, 2006

COMMUNICATION EXPOSURE OF RURAL WOMEN REGARDING HOMESTEAD GARDENING

BY

ROKEYA KHATUN
Regn. No. 25291/00396

A THESIS

Submitted to the
Department of Agricultural Extension & Information System
Faculty of Agriculture, Sher-e-Bangla Agricultural University,
Dhaka-1207
in partial fulfillment of the requirements
for the degree of
MASTER OF SCIENCE
IN
AGRICULTURAL EXTENSION & INFORMATION SYSTEM
SEMESTER: JANUARY- JUNE, 2006

Approved by:

(Md. Rafiquel Islam)
Supervisor

(Md. Sekender Ali)
Co-Supervisor

Prof. Md. Shadat Ulla
Chairman
Department of Agricultural Extension & Information System

CERTIFICATE

This to certify that the thesis entitled, "Communication Exposure of Rural Women Regarding Homestead Gardening" submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE IN AGRICULTURAL EXTENSION AND INFORMATION SYSTEM, embodies the result of a piece of bonafide research work carried out by Rokeya Khatun, Registration No. 25291/00396 under my supervision and my guidance. No part of the thesis has been submitted for any other degree or diploma.

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

Dated:

Dhaka, Bangladesh

(Md. Rafiquel Islam)

Supervisor

DEDICATED TO MY BELOVED PARENTS

ACKNOWLEDGEMENT

All praises are due to the Omnipotent Allah, the Supreme Ruler of the universe who enables me to complete this present piece of work.

The author would like to express her heartiest gratitude, sincere appreciation and immense indebtedness to her reverend thesis supervisor Mr. Md. Rafiquel Islam, Associate Professor, Department of Agricultural Extension and Information System, Sher-e-Bangla Agricultural University (SAU), Dhaka, Bangladesh, for his scholastic and intellectual guidance, planning, constructive criticism, valuable suggestions, continuous encouragement and all kinds of supports and help throughout the period of research work and preparation of this manuscript.

Heartiest and humble gratitude is expressed by the author to the respectable Co-supervisor Mr. Md. Sekender Ali, Assistant Professor, Department of Agricultural Extension and Information System, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh for his untiring guidance, valuable and creative suggestions, kind cooperation and dynamic reviewing throughout the study, research and preparation of the thesis.

The author is highly grateful to Md. Shadat Ulla Professor and Chairman, Dept. of Agricultural Extension and Information System. SAU, Dhaka for his sympathy, personal help, every possible favorable attitude for providing necessary facilities to complete this work.

The author takes an opportunity to express her boundless gratitude and helpful thanks to her most reverend teachers Professor Mohammad Hossain Bhuiyan, Professor M. Zahidul Haque, and other teachers of Dept. of Agricultural Extension and Information System of SAU, Dhaka, for their affectionate encouragement, inspiration, illuminating suggestions and deep feelings in favor of the completion of this piece of study.

The author recalls with due respect the generous contribution of her father who wanted his daughter to have bright future. She also expresses her boundless gratitude to her beloved mother whose sacrifices, inspiration and continuous blessings paved the way for her higher study. The author also feels indebtedness to other members of her family for their forbearance, inspirations, sacrifices and blessings.

At last but not the least, the author has thrown gratitude to her seniors of her university (Md. Abdullah-Al- Masud and Md. Fahid Shams Shabuj) and friends(Sayed, Salek, Mamun, Shohid, Solaiman, Rita, Polly, and Bobby), relatives and well wishers for their inspiration during the whole period of study.

The Author

CONTENTS

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURE

LIST OF APPENDICES

ABSTRACT

The purpose of the study was to have an understanding on the communication exposure of the rural women regarding homestead gardening. Attempts were also made to determine and describe the selected characteristics of the rural women and to determine the relationship of the selected characteristics of the rural women with their communication exposure. Data were collected from a random sample of 100 rural women of a selected village, namely Tebaria of Kushtia district.

Data revealed that more than half (58%) of the respondent had medium communication exposure, while 23% and 19% had low and high communication exposure regarding homestead gardening respectively. Education, land possession, gardening experience, homestead gardening knowledge and organizational participation of the rural women had significant positive relationship with their communication exposure regarding homestead gardening. The other characteristics such as age, family size, homestead garden size and time spent in gardening of the rural women were not associated with their communication exposure. Out of twelve communication media, Radio, neighbor, television, experienced women and group discussion came out as first five effective communication media used by the rural women regarding homestead gardening.

Women contribute significantly in agricultural production but it has hardly been recognized. Because of the existence of a traditional society, male generally dominates in development activities in Bangladesh. The situation now seems to be changing considerably due to the introduction of new technologies in agriculture and rural life.

In the economic development of Bangladesh the role of women cannot be over looked. Traditionally the women and their activities were confined in the homestead area (Halim, 1982). Akhter (1990) reported that women contribute to family income through homestead gardening activities such as fruit and vegetable gardening, poultry rearing, goat rearing etc. This income may meet a part of their household expenditure. Miah and parveen (1993) found that women spent about one fifth (19.89 Percent) of their total time in gardening activities and earn an average amount Tk. 18,160 annually from homestead gardening. The women are also involved with homestead agricultural production activities such as cultivation of vegetables, fruits, timber etc. and rearing of small animals (goat, sheep) and poultry birds to supply goods and increase family income (Akther, 1990). Halim (1982) reported that the women are potential producer of the homestead agricultural products. But due to lack of knowledge, utilization of proper technology and proper communication media the production remains below the expected level.

Considering the involvement of women in agriculture and their contribution in agricultural production since time immemorial, it becomes eminent that the women should have due access in the extension education. All professional extension activities were targeted towards men. But with the passage of time the attitude of extension planners and policy makers has been changed a lot. Now a days the rural women are being approached by different govt. and non-govt. agencies although not sufficiently. The Department of Agricultural Extension (DAE) is trying to reach the rural women directly with homestead gardening technology through a small contingent of female Sub Assist. Agril. Officers in addition to its usual indirect effort by the male Sub Assist. Agril. Officers.

Although rural women are heavily engaged in agricultural activities but in the past very few organized efforts have been made to find out the comparative effectiveness of different communication media in disseminating homestead gardening information to the rural women.

Considering the above facts, the investigator became interested to find out the communication exposure of rural women with various information media for receiving information on homestead gardening.

1.2 Statement of the Problem

Women may be the key operators of the homestead production. Women are actively involved in the field of agriculture. Women can contribute in both homestead gardening and field cropping. It is expected that the participation of

women in development process could attribute significantly in the balanced socio economic growth and development of the country. Existing social system,

illiteracy and limited facilities for improving knowledge and skill of the rural women along with inadequate employment opportunities have blocked them in the participation of development activities. So it is essential to provide them adequate knowledge and training in order to provide them to perform their job in a better way in the various field of development activities especially increasing homestead agricultural production. Very few researchers have as far been conducted on the use of communication media the rural women in Bangladesh. But there are urgent needs to identify the information sources used by the rural women regarding homestead gardening. Hence, the present study mainly deals with the communication exposure of rural women for finding the answers to the following question;

(I) What were the information media being used by the women regarding homestead gardening?

(II) What was 'the extent of communication exposure of the rural women?

(III) Which of the characteristics of the rural women were related with their communication exposure regarding homestead gardening?

(IV) What were the weightage of the communication media used by the rural

women regarding homestead gardening?

For getting clarification of the above questions the researcher under took a study entitled "Communication Exposure of the Rural Women Regarding Homestead Gardening".

1.3 Objectives of the Study

The study was conducted with the following specific objectives.

1. To determine and describe some selected characteristics of rural women. The selected characteristics were:
   - ❖ Age,
   - ❖ Education,
   - ❖ Family size,
   - ❖ Land possession,
   - ❖ Homestead garden size,
   - ❖ Gardening experience,
   - ❖ Time spent in gardening,
   - ❖ Homestead gardening knowledge,
   - ❖ Organizational participation.
2. To determine the extent of communication exposure of rural women regarding homestead gardening.
3. To explore the relationship between the selected characteristics of the rural women with their communication exposure regarding homestead gardening.
4. To examine the rank order of different use of communication media by the rural women.

1.4 Scope of the Study

Findings of the study will be particularly applicable to the Tebaria village in Kumarkhali Upazilla of Kushtia district. However the findings may also have applications for other areas of Bangladesh having conditions similar to the study area. In Bangladesh few researchers have so for conducted studies on the communication exposure of farmers regarding farming activities. But a little work has been conducted on the communication exposure of rural women regarding homestead gardening. Consequently, there is a dearth of information, needed for planning and executions of the program of extension services of Department of Agricultural Extension (DAE) and other related development agencies. The present study may have a considerable scope in such a situation.

1.5 Limitations of the Study

The present study was conducted to have an understanding about communication exposure of the rural women regarding homestead gardening. But considering the time, money and necessary resources available, the study was conducted with the following limitations:

1. The study was confined to only one village.
2. The respondents for data collection were kept limited within the women of the rural families.
3. Characteristics of rural women were many and varied but in the present study, only nine characteristics were selected for investigation.
4. There are many communication media from where rural women can receive information for their gardening activities. But only 12 communication media were selected for this study.

1.6 Significance of the Study

Now a day various government and non-government organizations are taking programs for increasing homestead production. The average homestead area per rural household is only 0.07 acre (BBS, 2005). The homestead area is defined as the area of land owned and occupied by the dwelling unit of the household, immediate of the dwelling unit including courtyard area under vegetables, spices, scattered grown bushes. Presently the planners, educators, researchers and development workers of the country felt that this area might be a source of nutrition as well as income generation for the family member.

Homestead garden can be utilized by raising fruits, vegetables, spices and plants for fuel. All of these activities might contribute to minimize the homestead expenditure and maximize saving. The by-product of these homestead components may also be utilized by each other through their interaction (Islam, 1994).

Women play a vital role in homestead agricultural activities. They are engaged with their homestead production activities for a long period of time in a day. But the homestead is not completely utilized or the production is not satisfactory, though the extent of utilization of homestead products varies from one region to another region of the country. This may be due to the fact that they are not using the modern technologies, as they do not know about them or not motivated to use them commercially. Rural women usually perform homestead agricultural activities with their indigenous knowledge. The change agent could motivate the women to change their present practices.

For better control over their activities and understanding, and to bring a desired change, the rural women should have exposure with different communication media to get homestead gardening information and technologies. As a result the homestead will fully be utilized and the production will be the satisfactory. Therefore this study would be very useful to policy planners in order to develop an extension approach for homestead production program.

1.7 Assumptions

The following assumptions were made in conducting the study

1. The respondents included in the sample were capable of furnishing proper responses to the questions included in the interview schedule.
2. The researcher who acted as interviewer was well adjusted to the social environment of the study area. Hence, the data collected by her from the respondents were free from bias.
3. The responses furnished by the respondents were reliable.
4. Views and opinions furnished by the rural women were the representative views and opinions of all the rural women of the study area.

1.8 Statement of the Hypothesis

A hypothesis simply means a mere assumption or some supposition to be proved or not proved. In broad sense, hypothesis may by divided into two categories: (a) Research hypothesis (Hi) and (b) Null hypothesis (Ho). The following broad hypothesis is formulated to explore the relationship between the dependent and independent variables. The broad research hypothesis for this study was:

There is a relationship of age, education, family size, land possession, homestead garden size, gardening experience, time spent in gardening, homestead gardening knowledge and organizational participation of the rural women with their communication exposure regarding homestead gardening.

For testing the hypothesis statistically, they were transformed into null form as follows:

"There is no relationship of age, education, family size, land possession, homestead garden size, gardening experience, time spent in gardening, homestead gardening knowledge and organizational participation of the rural women with their communication exposure regarding homestead gardening".

1.9 Definitions of Terms

Some significant terms used in the study have been defined as follows:

Communication exposure

The term communication exposure refers to the extent of contact made by an individual with various media for receiving agricultural information. The

communication exposure of the rural women thus refers to her extent of contact with various communication media for obtaining homestead gardening information.

Communication

Communication is a process of purposeful and mutual transmission or exchange of information in order to affect the desired change of behavior.

Garden

An area that raises vegetables or fruit plants or flowers with an intensive care under single ownership is known as garden.

Gardening

Gardening means anything carried out within the premises of a garden. Gardening aims at producing commodities to meet the necessities of daily life with the help of natural resources such as land, humidity, rainfall, temperature etc.

Rural women

It refers to the women living in villages and are engaged in gardening directly or indirectly.

Homestead area

It refers to the raised land where the household has its entire dwelling units including living house, animal & poultry shed, front yard, courtyard and the area

under vegetable, fruit trees, background bushes, bamboo bushes etc. Generally women are the main supervisors to this portion of the land.

Communication media

Communication media refer to the sources of information through which various information are diffused to the rural women or farmers.

Household

It refers to a group of persons living together and eating in one mess with their dependents. It is popularly known as "Khana" in Bengali. Actually when a group of persons living together to maintain a family or family like relation take meals from the same kitchen is termed as household.

Technology

Technology is a design for instrumental action that reduces the uncertainty in the cause effect relationship involved in achieving desired outcome and is usually generated by research institutes, intelligent farmers and others in order to meet farming "needs".

Household activities

Household activities include all activities of a rural women done within the homestead.

Age

Age of a rural woman was defined as the period of time in years from her birth to the time of interview.

Education

Education refers to the development of desirable knowledge, skill and attitude in the individual through reading, writing and other related activities. It was measured in terms of actual grades or class passed by a respondent.

Family size

Family size of a rural woman was defined as the number of individuals who live in the same residence and eat together. This includes the respondent herself, her husband, children and other permanent dependents if any.

Land possession

Land possession refers to the cultivated area either owned by a farmer or benefit derived from the land as borga or lease system. Land possession was measured in terms of hectares.

Homestead garden size

It includes the homestead area, which is used as garden for growing vegetables, fruits, flowers etc.

Gardening experience

Gardening experience means the experience, which was gained by an individual from active gardening. The experience of a rural woman meant the experience she gained directly by performing various gardening activities .

Time Spent in Gardening

It refers to the number of hours of a day she or her family members kept herself or themselves involved in homestead gardening activities.

Homestead gardening knowledge

It is the extent of basic understanding of a rural woman in different aspects of homestead gardening subject matters i.e. vegetable, fruit plants, varieties, production, plant protection etc. It also includes the basic understanding of the use of different homestead gardening inputs and practices.

Organizational participation

Organizational participation of a rural woman refers to her participation in various social organizations as ordinary member, executive committee member and executive officer.

CHAPTER 2

REVIEW OF LITERATURE

In this chapter the review of literatures related to this investigation is presented. The reviews are conveniently presented based on the major objectives of the study. The chapter is divided into three sections. First section deals with the findings on the communication exposure of the rural women in general and the second section is devoted to a discussion on the findings of studies exploring relationships between the selected characteristics of the respondents and their communication exposure. The third section deals with the conceptual model of the study.

2.1 General Review on Communication Exposure:

Elahi (1977) recommended that personal contact was an excellent medium for channeling information to rural communities where the mass media could not penetrate because of educational under development.

Allen (1985) found in a study that a greater proportion of rural wives used interpersonal information sources, such as family, friends and neighbors where as a greater proportion of rural husbands use interpersonal extension research based personal information sources.

Bhagat and Mathur (1985) found in a study that mass media like redio (86.60 percent), news paper (40.20 percent) and television (30.30 percent) was utilized by the rural women in Delhi territory.

Hooda (1987) observed that with regard to the utilization of source of communication radio was found to be the most impersonal source of information. In case of personal source, friends and relatives were the most utilized source of information followed by progressive farmers.

Kayemuddin (1988) in an experiment in Comilla found the demonstration method as the best method of communicating information on crops.

Parveen (1993) revealed that individual contact of women in modern village was positively significant with attitude towards homestead agricultural production and it was significant in case of traditional village.

Mallica (1991) emphasized the access of appropriate information for the farmwomen especially for poor, illiterate women. She argued that there should be opportunity for gender based communication system.

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

Wahyuni (1990) found that women's communication network and perceptions of themselves as individuals significantly affected women's roles in small hold farming systems.

Miah and Rolls (1990) in their study have identified some of the reasons enhances the flow of agricultural information among the farmers in Bangladesh. They observed that the social, political and economic factors of the farming community play an important role in the flow of extension messages among the farmer.

Kumari (1988) conducted a study as the effectiveness of mix media of rural women for health education. The study revealed that the majority of women were dependent heavily on localite sources of information and did not have urban contact. However they had somewhat favorable attitude towards the messages.

King and Bembridge (1988) found in a study in South Africa that opinion leaders considered the fellow farmers as the most reliable sources for obtaining information.

Kashem and Jones (1988) observed that small farmers had highest contact with individual sources and the lowest contact with group contacts. They had comparatively higher percentage of contact with mass media except for those that need literacy. Among individual contact, small farmers had the highest contact with ideal farmers and seed and fertilizer dealers and relatively little contact with the local extension workers i.e. block supervisor.

Bhuiyan (1988) observed that when single communication media was considered irrespective of categories it was found that the highest proportion of citations in all stages of adoption process was neighbors, friends and relatives.

Van Den Ban (1987) observed that Dutch farmers received a large proportion of their information about new developments of agricultural research through their farm magazine. He also observed that radio and television did not play much bigger role in agricultural extension. He again found that the people might be aware of new ideas from the mass media, but usually waited for conformation from personal sources of information.

Gura (1986) suggested that rural women need to be recognized as a group with specific extension and training needs, group approaches, compared to methods of extension that are general to individuals. He said that group approach of women rather than individual approach might help to reduce the social and cultural restrictions.The female agricultural extension worker would be helpful to reach rural women.

Samanta (1986) in a study in India found that demonstration is the best credible source of information by the farmers followed by scientists, block extension agency, progressive farmers, television, radio and printed matters.

Nataraju and Channegowda (1985) found in a study that respondents used radio (54.00 %), newspaper (46.00%), neighbors (23.30%), demonstrations (10.60%) and group meeting (6.00%) in receiving information on improved dairy management practices.

Patil *et al.* (1984) found in a study that contact farmers received information on improved agricultural technology from neighbor farmers (59.13%), progressive farmers (56.12%), village extension worker (91.84%), agricultural officer

(31.63%), group discussion (16.33%), demonstration (14.28%), radio (88.77%) and news paper (60.20%).

Oni (1983) found in a study in Nigeria that the farmers use of method and result demonstration as most influencing their adoption of selected farming practice. Office visit, farm visits were listed next. Radio was the least preferred media.

Roy (1981) conducted a study on communication behavior of small income farmer receiving information on the use of balanced dose of fertilizer for transplanted Aman cultivation in Agriversity Extension Project area, Mymensingh, Bangladesh. He found that the discussion with friend and neighbors received the largest number of scores as 136, radio comes next with 104 score. Attending agricultural exhibition by the respondent secured the third position. Lecture at the field training spot also played an important role in the use of balanced dose of fertilizer having a score at 50.

Jange and Patel (1981) found in a study that most of the farmers used radio in receiving information on Groundnut cultivation.

Orojobi (1980) found in a study that the private sources of agricultural information of Nigerian farmers were friends, other farmers, local leaders, traditional meetings, extension agents, radio, demonstrations, television, agricultural shows and printed materials.

Opare (1980) showed in a study that farmer received information for cocoa production from friends, relatives and extension officers.

Sheahan (1979) found in a study that the patronage of radio program by farmers is quite high. Farmers depended on radio for market reports and weather information.

2.2 Review of Past Studies Concerning Relationship of Selected Characteristics of the Rural Women with their Communication Exposure

Nine characteristics of the rural women were selected as independent variables of the study. The researcher has studied the relationship of each of the selected characteristics with communication exposure. However, succinct reviews of literature on the relationship of each independent variable with communication exposure are presented in this section.

Age

Bhuiyan (1988) found in his study that age of the farmers had significant negative correlation with the use of communication media in the adoption of selected improved farm practices in rice cultivation.

Kandam and Sabale (1983) observed in a study that age of the farmers had statistically significant association with the extent of use of communication media.

Roy (1981) in his study indicated that the age of the small income farmers had no significant effect in using communication media on the use of balanced dose of fertilizer.

Ahmed (1977) in his study found that age of the farmers had no significant influence on the use of information sources in the adoption of improved farm practices.

Rahman (1974) concluded in his study that the age had no significant influence on the use of information sources.

Karim (1973) studied in adoption of fertilizers in keyotkhali union of Mymensingh district. He found no relationship between the ages of transplanted rice growers and their communication exposure.

Haque (1972) observed in a study that statistically there was no relationship between age and use of information sources.

Latif (1974) observed that there was no relationship between age of the farmers and their communication exposure.

Education

Kashem and Jones (1988) found in their study that education of small farmers reduced significant positive correlation with their contact with information sources.

Bhuiyan (1988) concluded in his study that education and the use of communication media in the adoption of farm practices was positively correlated.

Kadam and Sabale (1983) observed in a study that educational level of sugarcane growers showed statistically significant association with the extent of use of communication media.

Dhande (1982) observed that the education of the respondent was positively and significantly related to information sources utilization score.

Halim (1982) in his study on schooling, extension and agricultural production that increase of education of the farm operators resulted increased per acre production of rice, jute and net farm income of the farm but the positive trend between level of education and increased production tended to fall in those farms where the operators received more the secondary level of education. He found significant regression between levels of formal schooling per farm operator and per acre production of jute and rice, which also resulted significant increase in net farm income.

Roy (1981) in his study indicated that education contributed positive relationship on their communication behavior receiving information on use of balanced doses of fertilizer.

Hossain (1981) in his study found that there was no relationship of education of the farmers with their adoption of improved practices.

Ahmed (1977) in his study showed that education of farmers has a significant relationship with information sources in the adoption of plant protection measures.

Rahman (1974) observed in his study that the relationship between the education of the Jute growers and their use of communication sources was positively correlated.

Latif (1974) found in his study that there was no relationship between education of rural women and their communication exposure.

Family size

Latif (1974) observed that there was no relationship between family size of the farmers and their communication exposure in receiving agricultural information.

Ahmed's (1977) study showed that family size had significant influence on the use of information sources in the adoption of plant protection measures.

Kadam and Sabale (1983) found in a study that size of family of the farmers had on association with the extent of use of communication media.

Land possession

Hooda (1987) found that land holding of the farmers had positive and significant correlation with the communication behavior.

Kadam and Sabale (1983) found in a study that the correlation between land holding of sugarcane growers and the extent of use of communication media was not significant.

Roy (1981) found that there was no significant effect of land ownership of the small income farmers with their communication behavior.

Latif (1974) found in his study that there was a positive relationship between farm size and communication exposure of the rural women.

Homestead garden size

Bhuiyan (1988) found in his study that farm size had significant positive correlation with the use of communication media in the adoption of selected improved farm practices in rice cultivation.

Ahmed (1977) showed in a study that farm size had significant influence on the use of information sources in the adoption of plant protection measures.

Rahman (1974) concluded in his study that a positive correlation was found between the farm size of the farmers and their use of communication sources.

Gardening experience

No literature was found as the relationship between gardening experience and communication exposure.

Time spent in gardening

No literature was found as the relationship between gardening experience and communication exposure.

Homestead gardening knowledge

Kashem and Halim (1991) showed that the use of communication media in adoption of modern rice technologies had significant positive correlation with agricultural knowledge.

Karim (1973) concluded in a study that lack of awareness and improper knowledge about the fertilizers was the most important barriers to the adoption of fertilizers for transplanted Aman rice by the farmers.

Kashem and Jones (1988) found in their study agricultural knowledge of the rural women rendered signification positive correlation with their contact with information sources.

Organizational participation

Roy (1981) in his study indicated that organizational participation of small income farmers had significant positive effect on their communication behavior receiving information on the use of balanced doses of fertilizer.

Rahman (1974) in his study revealed that organizational participation had significant positive relationship with the use of communication sources by the Jute seed growers.

Latif (1974) concluded that the organizational participation of the rural women had a significant positive relationship with the use of communication media.

Bhuyan (1988) indicated in his study that the relationship between organization participation and the use of communication media was not significant.

Dhande (1982) observed that organization participation of the respondents was positively and significantly related to information source utilization score.

2.3 Conceptual Model of the Study

In the light of review of literature, it is conceived that communication exposure of the rural women regarding homestead gardening is greatly motivated and influenced by some of the characteristics. For clear and better understanding, it is shown through a schematic diagram (Fig. 1).

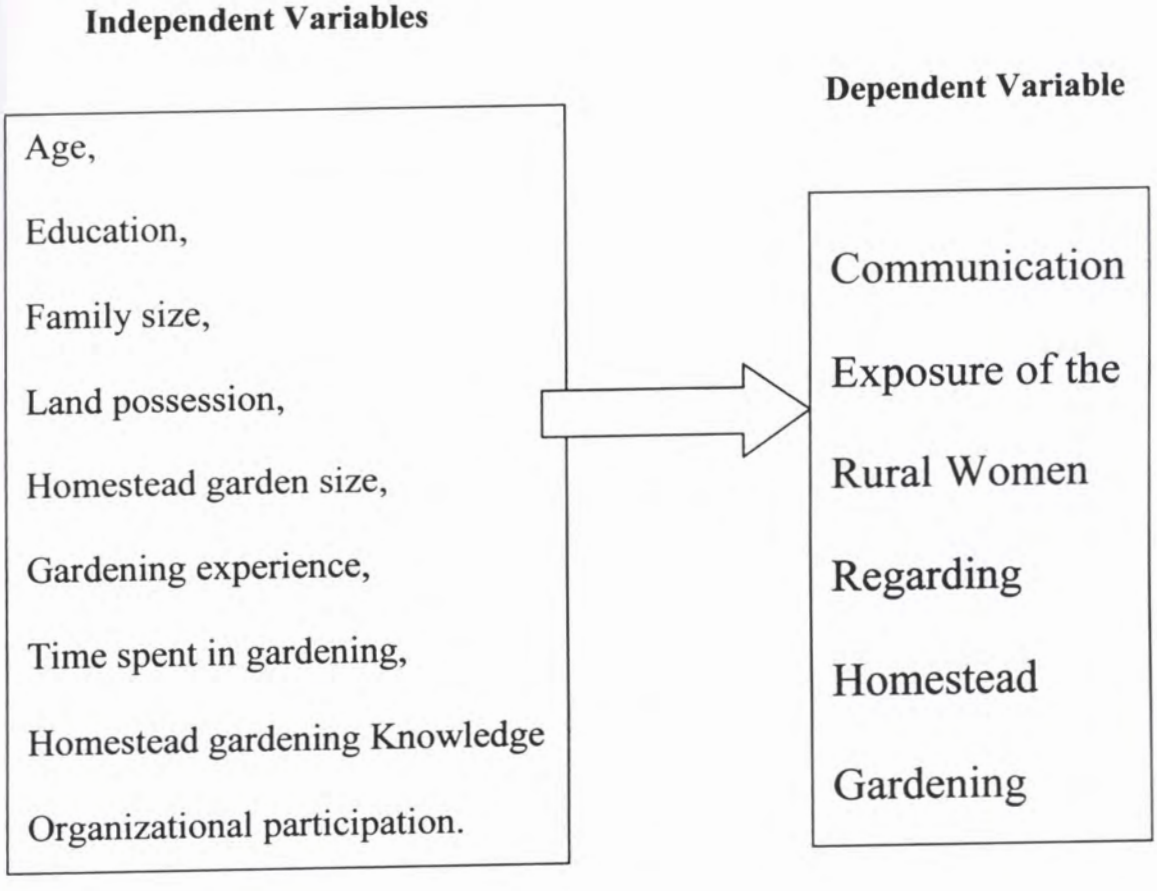

Figure 1: Simple Conceptual Model of the study

CHAPTER 3

METHODOLOGY

Methodology is very important in any research. The researcher has the great responsibility to clearly describe what shorts of research design, methods and procedures. Thus, methods and procedures followed in conducting this study are discussed in this chapter.

3.1 The Locale of the study

Tebaria village of Kumarkhali Upazilla of Kushtia district was purposively selected as the locale of the study. Kumarkhali Upazilla consists of 202 villages. Out of these 202 villages, one village namely Tebaria was selected by following simple random sampling technique. Considering time, money and resources of the researcher, the study was kept confined to this village.

3.2 Populations and Sampling Design

All the rural women of the selected village constituted the population for this study. The investigator herself with the help of local union council and the Sub Assistant Agriculture Officer prepared an up-to-date list of all rural women of the selected village. The total number of the rural women of the village was 875. From this population, 100 rural women were randomly selected as sample by using a Table of Random Number. A reserve list of five rural women was also prepared. Rural women of the reserve list were used only when a respondent in the original list was not available for interview.

3.3 Preparation of Data Gathering Instrument

Keeping the objectives of the study in view, an interview schedule was prepared for collection of data. The questions and statements contained in the schedule were simple, direct and easily understandable to the rural women. The schedule contained close and open form of questions. Scales were constructed for measuring some variables. Numerical data were obtained in the case of age, education, family size, effective family labor, land possession, homestead garden size, gardening experience, time spent in gardening, homestead gardening knowledge and organizational participation of the rural women.

The schedule was prepared in Bengali for clarity of understanding on the part of respondents. The draft interview schedule was pre-tested by administering the same on 10 homestead rural women of the study area of Kumarkhali Upazilla in actual field situation before finalizing the same for collection of data. Necessary alternations, modifications and adjustment were made in the schedule on the basis of the experience of the pre-test. A copy of the English version of the interview schedule appears at Appendix- A.

3.4 Collection of Data

The researcher herself collected data. A house-to-house survey was conducted by the researcher to collect data. All possible efforts were made to explain the purpose of the study to the respondents in order to get valid and relevant information from them.

For data collection, interviews were conducted with the respondents at their homes during their leisure period. While starting interview with any respondent the researcher established appropriate rapport so that she did not feel hesitance to furnish proper responses to the questions, statements in the schedule.

In some cases the researcher failed to meet with respondents at their homes for interviews. However this problem was resolved by repeating the visit. The total collection process of data took 30 days from 1st March to 30th March 2006.

3.5 Processing of Data

Data obtained from the respondents were coded, compiled, tabulated and analyzed in accordance with the objectives of the study. Qualitative data were converted to quantitative data by means of suitable scoring to facilitate analysis and interpretation.

3.6 Variables of the Study

Independent and dependent variables of the study are presented below:

3.6.1 Independent Variable

The selected individual characteristics of the rural women were considered as independent variables, which were as follows:

- Age,
- Education,
- Family size,
- Land possession,
- Homestead garden size,

- ❖ Gardening experience,
- ❖ Time spent in gardening,
- ❖ Homestead gardening knowledge, and
- ❖ Organizational participation

3.6.2 Dependent Variable

a) Communication exposure of the rural women regarding homestead gardening was the dependent variable of the study. Various communication media were used by the rural women regarding information on homestead gardening.

3.7 Measurement of Variables

The procedures followed in measuring the independent and dependent variables are presented below:

3.7.1 Measurement of independent variables

Nine characteristics of rural women as mentioned above were the independent variables of this study. The measurement procedures of these selected characteristics are described below:

3.7.1.1 Age

Age of a rural woman referred to the period of time from her birth to the time of interview and it was measured in terms of complete actual years.

3.7.1.2 Education

Education of a respondent was measured on the basis of her number of years of schooling in educational institutions. If a respondent had the education equal to the level of class four (4), her education score was taken as 4. If a respondent passed the final examination of S.S.C, her education score was taken as 10. If a respondent could sign her name only then the education score of the respondent was taken as 0.5. If a respondent did not know how to read and write, her education score was taken as zero (0).

3.7.1.3 Family size

Family size of the rural women was determined by the total number of members in her family including herself, her husband, children and other dependents. The total number of family members was considered as the family size of a respondent. For example, if a respondent has 6 members in his family, then his family size was 6.

3.7.1.4 Land possession

Land possession of a respondent was measured in hectares by using the following formula:

Land Possession = $a + b + c + {}^{1}/_{2}(d + e) + f + g + h$

Where,

a = Homestead non-farm area
b = Homestead garden size
c = Own cultivated area
d = Own land given to others on borga
e = Land taken from others on borga
f = Land taken from others on lease
g = Pond
h = Others

3.7.1.5 Homestead garden size

Homestead garden size was estimated in hectares, which was used as homestead garden.

3.7.1.6 Gardening experience

Gardening experience of a respondent was measured by the number of years she was involved actively with the homestead gardening activities. It was expressed in complete year.

3.7.1.7 Time spent in gardening

Time spent in gardening of a respondent was measured by the number of hours in a day she had kept herself involved in performing homestead gardening activities mentioned by the respondent herself.

3.7.1.8 Homestead gardening knowledge

It refers to the possession of knowledge by a respondent on different aspects of homestead gardening. Homestead gardening knowledge of a rural woman was measured by asking 20 different questions related to homestead gardening. Two (2) score was assigned for each question. The total assigned score for all the questions was 40. A respondent answering a question correctly obtained full score, while for wrong answer, she obtained zero score. Partial score was given for partial correct answer. Thus the gardening knowledge score of a respondent could range from 0 to 40, where 0 indicated very low knowledge and 40 indicated very high knowledge.

3.7.1.9 Organizational participation

It was measured by computing an organizational participation score on the basis of a respondent's nature of participation in different selected organizations. The scale for computing organizational participation for a particular organization shown below:

Organizational participation score = P X D.

Where,

P = Participation score

D = Duration (year)

Participation score was assigned as:

Score	Position hold
0	No participation
1	Participation as ordinary member
2	Participation as executive member
3	Participation as officer

The duration score was assigned as year.

Finally organizational participation score was measured by summing up all the score for participating in all the organizations.

3.7.2 Measurement of dependent variable

Communication exposure of rural women was the dependent variable of the study. The communication exposure of the rural women regarding information on homestead gardening was ascertained.

It was calculated on the basis of number of contact made by a rural woman with a media regarding information for performing selected homestead gardening activities.

Weights were assigned to each of the items according to their logical frequencies of contact to each communication media to compute the communication exposure score of the rural women as the following manner:

S.L	Information Media	Nature of Visit	Weightage
1	Neighbor,	Not even once per month	0
	Relative,	1 time per month	1
	Experienced women,	2 times per month	2
	Radio, T.V,	3 – 4 times per month	3
	Newspaper	4 or more times per month	4
2	Sub Assistant	Not even once per quarter	0
	Agriculture Officer,	1 time per quarter	1
	NGO Worker	2 times per quarter	2
		3 times per quarter	3
		4 or more times per quarter	4
3	Group Discussion,	Not even once per year	0
	Training,	1 time per year	1
	Result demonstration,	2 – 4 times per year	2
	Printed material	5 – 7 times per year	3
		7 or more times per year	4

The communication exposure score of a respondent was obtained by adding her weights in all the twelve media. Thus the communication exposure score of a respondent could range from 0 to 48. where 0 indicated no exposure and 48 indicated very high exposure.

Extent of use of different communication media

To measure the extent of use of different communication media, a Media Use Index (MUI) was computed. It was calculated by adding the weights of responses made by all the respondents for a particular media.

3.8 Analysis of Data

After completion of data collection the responses were coded, tabulated and analyzed according to the objectives of the study. Local units were converted into standard units. The responses to the questions in interview schedules were transferred to a master sheet to facilitate tabulation. Necessary tabulation and cross tabulation were also computed.

3.9 Statistical Analysis

Data collected were compiled and analyzed in accordance with the objectives of the study. The statistical measures such as range, mean, standard deviation, number and percentage distribution and rank order were used for describing both the independent and dependent variables. Tables were also used in presenting data for clarity of understanding. To find out the relationship between selected characteristics of rural women and their communication exposure Pearson's Product Moment Co-efficient of Correlation was used. Five percent (0.05) level of probability was used as the basis for determining statistical significance.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter deals with the findings of the research. The chapter is divided into four (4) sections. The first section deals with the characteristics of the rural women. The second section deals with the communication exposure of the rural women regarding homestead gardening. The third one deals with the relationship between individual characteristics of the rural women with their communication exposure regarding homestead gardening. The last section deals with the rank order of use of different communication media regarding homestead gardening.

4.1 Characteristics of the Rural Women

By the characteristics, behavior of an individual can be largely determined. The major hypothesis of this study was the communication exposure of the rural women regarding homestead gardening would be influenced by the various characteristics. The selected characteristics of the rural women were age, education, family size, land possession, gardening size, gardening experience, time spent in gardening, homestead gardening knowledge and organizational participation. Characteristic profiles of the rural women may be seen at a glance (Table 4.1).

Table 4.1 Characteristic Profiles of the Rural Women

Sl. No.	Name Of Variables	Scoring Method	Categories	Possible Score	Observed Score	Respondents		Mean	S.D.
						Number	Percent		
1	Age	No. of Years	Young (up to 30)	Unknown	16 - 53	26	26	37.09	9.44
			Middle (31-45)			51	51		
			Old (>45)			23	23		
2	Education	Years of Schooling	No education	"	0 -12	19	19	3.75	3.046
			Primary (1-5)			59	59		
			Secondary (6-10)			18	18		
			Above Secondary (11& above)			4	4		
3	Family Size	No. of Family Member	Small (1-3)	"	2 - 9	4	4	5.64	1.43
			Medium (4-7)			86	86		
			Large (7 & above)			10	10		
4	Land Possession	Hectare	Small (0 -1.19)	"	0.03 - 3.74	21	21	2.296	1.09
			Medium (1.2 -3.38)			67	67		
			Large (3.39&above)			12	12		
5	Homestead garden Size	Hectare	Small (<0.0045)	"	0.003 - 0.03	33	33	.0065	.0036
			Medium (0.0045 to 0.0085)			45	45		
			Large (>0.0085)			22	22		
6	Gardening Experience	No. of Years	Low (2-5)	"	2 - 15	12	12	8.81	2.83
			Medium (6-12)			78	78		
			High (13 & above)			10	10		
7	Time Spent in Gardening	No. of Hours	Low (<3)	0 - 24	2 - 6	4	4	3.95	0.95
			Medium (3-5)			91	91		
			High (>5)			6	6		
8	Homestead Gardening Knowledge	Score	Low (10-17)	0 - 40	10 - 36	11	11	23.87	5.39
			Medium (18-29)			72	72		
			Very High (30-40)			17	17		
9	Organizational Participation	Score	No participation (0)	Unknown	0 - 7	24	24	1.82	1.49
			Low (1-3)			63	63		
			Medium (4 &above)			13	13		

4.1.1 Age

Age of the rural women ranged from 16 to 53 years, the average being 37.09 years and the standard deviation was 9.44. On the basis of their age, the rural women were classified into three categories: "young" (Up to 30), "middle aged" (31-45) and "old" (>45). The distribution of the rural women according to their age is shown in Table 4.1.

Data contained in the Table 4.1 indicates that, the highest proportion of the rural women (51 percent) felt in the "middle age" category, while 26 percent of them fell in the "young age" category and only 23 percent in the "old" category.

The findings indicate that a large proportion (77 percent) of the rural women were young and middle aged and may use more number of communication media for their homestead gardening activities than the old aged rural women.

4.1.2 Education

The education of the rural women was measured by the level of their education i.e. to the grade (class) passed by them in the educational institutions. Education score ranged from 0 to 12. The average being 3.75 and the standard deviation was 3.046. On the basis of their educational scores, the rural women were classified into four categories, namely "No education" (0), "primary" (1-5), "secondary"(6-10) and "above secondary" (11 or above). The distribution of the rural women according to their education is shown in Table 4.1.

The majority (59 percent) of the rural women had primary level of education while 19 percent had no education, 18 percent had secondary and only 4 percent had above secondary level of education. Rural women need to have some education in order to use various communication media properly. It is shown that 81 percent of rural women had education of various degrees from primary to above secondary level. It is observed that about one-fourth (19 percent) of rural women had no education. For that reason the women having no education may suffer to use the communication media. As a result they could not receive the useful and important gardening information.

4.1.3 Family size

The family size of the rural women ranged from 2 to 9 members. The average was 5.64 with a standard deviation of 1.43. On the basis of their family size the rural women were classified into the following three categories: "small family" (1 to 3), "medium family" (4-7) and "large family" (8 or above). Table 4.1 contains the distribution of the rural women according to their family size.

Data presented in Table 4.1 shows that highest proportion (86 percent) of the rural women had medium families compared to 4 percent having small families and 10 percent had large families. The findings indicate that majority (90 percent) of the rural women had low to medium families and likely to maintain better contact with various communication media for obtaining information.

4.1.4 Land possession

Land possession in the study area ranged from 0.03 to 3.74 hectare with an average of 2.296 and the standard deviation was 1.09. Based on the scores obtained, the rural women were grouped into three categories and those are "small" (0 to 1.19), "medium" (1.2 to 3.38) and "large" (3.39 & above). Table 4.1 contains the distribution of the rural women according to their land possession.

Data presented in Table 4.1 indicates that the highest proportion (67 percent) of the rural women had medium land possession compared to 21 percent having small land possession and 12 percent had large land possession. This information indicate that majority (88 percent) of the rural women had low to medium land possession.

4.1.5 Homestead garden size

Gardening size in the study area ranged from 0.003 to 0.030 hectare with an average of 0.0065 and the standard deviation was 0.0036. Based on the scores obtained, the rural women were grouped into three categories and those are "small" (<0.0045), "medium" (0.0045 to 0.0085) and "large" (>0.0085). Table 4.1 contains the distribution of the rural women according to their homestead garden size.

Data presented in Table 4.1 indicates that the highest proportion (45 percent) of the rural women had medium land possession compared to 33 percent having small garden size and 22 percent of rural women had large garden size. This

information indicate that majority (78 percent) of the rural women had low to medium gardening possession.

4.1.6 Gardening experience

Gardening experience of the rural women ranged from 2 to 15 years with an average of 8.81 and the standard deviation was 2.83. Based on the scores obtained, the rural women were grouped into three categories and those are "low" (2 to 5), "medium" (6 to 12) and "high" (13 & above). Table 4.1 contains the distribution of the rural women according to their gardening experience.

Data presented in Table 4.1 indicates that the highest proportion (78 percent) of the rural women had medium gardening experience compared to 12 percent having low gardening experience and 10 percent had high gardening experience. This information indicate that majority (90 percent) of the rural women had low to medium gardening experience. It is expected that more the experience in gardening activities, the better is the performance in gardening activities. Consequently the better performance requires higher communication exposure. The findings indicated a probability of higher communication exposure of the rural women.

4.1.7 Time spent in gardening

Time spent in gardening by the rural women in the study area ranged from 2 to 6 hours per day with an average of 3.95 and the standard deviation was 0.95. Based on the scores obtained, the rural women were grouped into three categories and

those are "low" (<3), "medium" (3 to 5)" and "high" (>5). Table 4.1 contains the distribution of the rural women according to their time spent in gardening.

Data presented in Table 4.1 indicates that the highest proportion (91 percent) of the rural women felt in medium time spent in gardening compared to 4 percent having low time spent in gardening and 6 percent in high time spent in gardening. This information indicated a possibility of higher communication exposure of the rural women because the rural women spent 3.95 hours per day for gardening activities.

4.1.8 Homestead gardening knowledge

Homestead gardening knowledge of the rural women in the study area ranged from 10 to 36 against the possible range from 0 to 40 with an average of 23.87 and the standard deviation being 5.39. Based on the scores obtained, the rural women were grouped into three categories and those are "low" (10 to 17), "medium" (18 to 29) and "large" (30 to 40). Table 4.1 contains the distribution of the rural women according to their homestead gardening knowledge.

Data presented in Table 4.1 indicates that the highest proportion (72 percent) of the rural women had medium homestead gardening knowledge compared to 11 percent having low homestead gardening knowledge and 17 percent had high homestead gardening knowledge. This information indicate that majority (83 percent) of the rural women had low to medium homestead gardening knowledge meaning a better communication exposure. The mean value of the data also indicates such a communication exposure of the rural women.

4.1.9 Organizational participation

Organizational participation scores of the rural women ranged from 0 to 7 with an average of 1.82 and a standard deviation was 1.49. On the basis of their organizational participation scores, the rural women were classified into three categories: "no participation" (0), "low participation" (1-3) and "medium participation" (4 or above). The distribution of rural women according to their organizational participation is shown in Table 4.1.

Data presented in Table 4.1 indicates that the highest proportion (63 percent) of the rural women had low organizational participation compared to 24 percent having no organizational participation and 13 percent had medium organizational participation. Through participation in organization an individual comes in contact with other people, so that they can learn new ideas and way of doing things. Organizational participation may have the effect of favorably disposing the rural women towards the use of communication media. The findings of this study indicate that the highest percentage of the rural women had low organizational participation compared to the little percentage in medium participation. The rural women with more organizational participation are expected to use more communication media regarding homestead gardening.

4.2 Communication exposure of rural women regarding homestead gardening

Communication exposure of the rural women was the dependent variable of the study. It was measured by computing a communication exposure score on the basis of their use of twelve (12) communication media regarding information.

The possible range of communication exposure score of a respondent could range from '0' to '48'. But the computed communication exposure of the respondents ranged from 10 to 38 with an average of 21.45 and standard deviation of 8.92. The rural women were classified into three (3) categories on the basis of communication exposure score as shown in the table 4.2.

Table 4.2 Number & percentage distribution of rural women according to their communication exposure.

Categories	Respondents		Mean	S.D
	Number	Percentage		
Low exposure (0 to 12) <(Mean -1sd) i.e 0-12	23	23		
Medium exposure (13 to 30) (Mean ± 1sd) i.e 13-30	58	58	21.45	8.92
High exposure (31 to 48) >(Mean + 1sd) i.e 31-48	19	19		
Total	100	100		

Data presented in table 4.2 show that more than half (58%) of the respondent had medium communication exposure regarding homestead gardening information while 23 percent of them had low exposure and only 19 percent high exposure.

Thus the majority (81%) of the rural women had low to medium communication exposure. Low exposure may lead to poor performance in the homestead gardening.

4.3 Relationship between individual characteristics of the rural women and their communication exposure

The purpose of this section is to examine the relationships of nine selected characteristics of the rural people (the independent variables) with their communication exposure (the dependent variable) regarding homestead gardening. The selected characteristics of the rural women include age, education, family size, land possession, gardening size, gardening experience, time spent in gardening, homestead gardening knowledge and organizational participation.

Each of the above characteristics constituted an independent variable while communication exposure of the rural women regarding homestead gardening was the only dependent variable of the study. Pearson's Product Moment Co-efficient of Correlation (r) was used to test the null hypothesis concerning the relation between the dependent and independent variables. Five percent (0.05) level of probability was used as the basis for rejection of a null hypothesis. Summary results of the test of co-efficient of correlation between the independent and dependent variables are shown in Table 4.3.

Table 4.3 Relationship between nine characteristics of the rural women and the communication exposure regarding homestead gardening

Dependent Variable	Independent Variable	Co-efficient of Correlation	Tabulated Value of 'r' with 98 d.f.	
Communication exposure of the rural women regarding homestead gardening	Age	0.110NS	5%	1%
	Education	0.444**	0.196	0.256
	Family size	0.187NS		
	Land possession	0.294**		
	Homestead garden size	0.180NS		
	Gardening experience	0.493**		
	Time spent in gardening	0.187NS		
	Homestead gardening knowledge	0.309**		
	Organizational participation	0.225*		

NS = Not Significant

* = Significant at 5% level

** = Significant at 1% level

4.3.1 Relationship between age of the rural women and their communication exposure

The relationship between age of the rural women and their communication exposure was examined by testing the following null hypothesis: "There is no relationship between age of the rural women and their communication exposure."

The co-efficient of correlation between age of the rural women and their communication exposure was found 0.11(Table 4.3). The following observations were recorded regarding the relationship between the variables on the basis of the co-efficient of correlation.

Firstly, the computed value of r (r= 0.110) was found to be smaller than the tabulated value (r = 0.196) with 98 degree of freedom at 0.05 level of probability. Secondly, the null hypothesis could not be rejected, Thirdly a very weak positive trend was found to exist between age and communication exposure of the rural women.

Based on the above findings, the researcher concluded that, age of the rural women had no significant relationship with their communication exposure. This indicates that the communication exposure of the rural women was not influenced significantly by the various age levels.

4.3.2 Relationship between education of the rural women and their communication exposure

The association existing between education of the rural women and their communication exposure was examined by testing the following null hypothesis:

"There is no relationship between education of the rural women and their communication exposure."

The computed co-efficient of correlation between education of the rural women and their communication exposure was found 0.444 (Table 4.3). This lead to the following observations:

Firstly, the computed value of r (r=0.444) was found to be larger than the concerned tabulated value (r = 0.256) with 98 degree of freedom at 0.01 level of probability. . Secondly, the null hypothesis was rejected. Thirdly, a positive trend of relationship was found to exist between education and communication exposure of the rural women.

Based on the above findings, the investigator concluded that, education of the rural women had a strong significant and positive relationship with their communication exposure. This indicates that the higher the education of the rural women, the higher was their communication exposure.

Education of an individual, imparts a sound mental make up that gives her a judging capability with rationality. The positively significant and high relationship (r = 0.444) between education and communication exposure was supportive to this postulation. Moreover, education enhances individual's contact with the printed mass media and her understandability.

4.3.3 Relationship between Family Size of the rural women and their communication exposure

The relationship between family size of the rural women and their communication exposure was examined by testing the following null hypothesis: "There is no relationship between family size of the rural women and their communication exposure."

The co-efficient of correlation between family size of the rural women and their communication exposure was found 0.187 (Table 4.3). The following observations were recorded regarding the relationship between the variables on the basis of the co-efficient of correlation.

Firstly, the computed value of r (r= 0.187) was found to be smaller than the tabulated value (r = 0.196) with 98 degree of freedom at 0.05 level of probability. Secondly, the null hypothesis could not be rejected, Thirdly a very weak positive trend was found to exist between family size and communication exposure of the rural women.

Based on the above findings, the researcher concluded that, family size of the rural women had no significant relationship with their communication exposure. This indicates that the communication exposure of the rural women was not influenced significantly by the various family sizes.

4.3.4 Relationship between Land Possession of the rural women and their communication exposure

The association existing between land possession of the rural women and their communication exposure was examined by testing the following null hypothesis: "There is no relationship between land possession of the rural women and their communication exposure."

The computed co-efficient of correlation between land possession of the rural women and their communication exposure was found 0.294 (Table 4.3). This lead to the following observations:

Firstly, the computed value of r (r=0,294) was found to be larger than the concerned tabulated value (r = 0.256) with 98 degree of freedom at 0.01 level of probability. . Secondly, the null hypothesis was rejected. Thirdly, a positive trend of relationship was found to exist between land possession and communication exposure of the rural women.

Based on the above findings, the researcher concluded that, land possession of the rural women had a strong significant and positive relationship with their communication exposure. The statistical analysis implies that with the increase of land possession, the communication exposure also is increased.

4.3.5 Relationship between homestead garden size of the rural women and their communication exposure

The relationship between homestead garden size of the rural women and their communication exposure was examined by testing the following null hypothesis: "There is no relationship between gardening size of the rural women and their communication exposure."

The co-efficient of correlation between homestead garden size of the rural women and their communication exposure was found 0.18 (Table 4.3). The following observations were recorded regarding the relationship between the variables on the basis of the co-efficient of correlation (r).

Firstly, the computed value of r (r= 0.18) was found to be smaller than the tabulated value (r = 0.196) with 98 degree of freedom at 0.05 level of probability. Secondly, the null hypothesis could not be rejected, Thirdly a very weak positive trend was found to exist between homestead garden size and communication exposure of the rural women.

Based on the above findings, the researcher concluded that, homestead garden size of the rural women had no significant relationship with their communication exposure.

4.3.6 Relationship between gardening experience of the rural women and their communication exposure

The association existing between gardening experience of the rural women and their communication exposure was examined by testing the following null hypothesis: "There is no relationship between gardening experience of the rural women and their communication exposure."

The computed co-efficient of correlation between gardening experience of the rural women and their communication exposure was found 0.493 (Table 4.3). This lead to the following observations:

Firstly, the computed value of r (r=0.493) was found to be larger than the concerned tabulated value (r = 0.256) with 98 degree of freedom at 0.01 level of probability. . Secondly, the null hypothesis was rejected. Thirdly, a positive trend of relationship was found to exist between gardening experience and communication exposure of the rural women.

On the basis of the above findings, the investigator concluded that, gardening experience of the rural women had significant and positive relationship with their communication exposure. This indicates that the higher the gardening experience of the rural women, the higher was their communication exposure towards various media.

4.3.7 Relationship between time spent in gardening by the rural women and their communication exposure

The null hypothesis used to test the relationship between time spent in gardening activities by the rural women and their communication exposure was: "There is no relationship between time spent in gardening activities by the rural women and their communication exposure."

The co-efficient of correlation between time spent in gardening activities by the rural women and their communication exposure was found 0.187 (Table 4.3). The following observations were recorded regarding the relationship between the variables on the basis of the co-efficient of correlation.

Firstly, the computed value of r (r= 0.187) was found to be smaller than the tabulated value (r = 0.196) with 98 degree of freedom at 0.05 level of probability. Secondly, the null hypothesis could not be rejected, Thirdly a very weak positive trend was found to exist between time spent in gardening and communication exposure of the rural women.

Based on the above findings, the researcher concluded that, time spent in gardening activities by the rural women had no significant relationship with their communication exposure. This indicates that the communication exposure of the rural women was not influenced significantly by the various time spent in gardening activities. Thus, statistically it indicates that the variables were independent of each other.

4.3.8 Relationship between homestead gardening knowledge of the rural women and their communication exposure

The association existing between homestead gardening knowledge of the rural women and their communication exposure was examined by testing the following null hypothesis: "There is no relationship between homestead gardening knowledge of the rural women and their communication exposure."

The co-efficient of correlation between the concerned variables was found 0.309 (Table 4.3). This lead to the following observations:

Firstly, the computed value of r (r=0.309) was found to be larger than the concerned tabulated value (r = 0.256) with 98 degree of freedom at 0.01 level of probability. . Secondly, the null hypothesis was rejected. Thirdly, a positive trend of relationship was found to exist between homestead gardening knowledge and communication exposure of the rural women.

Based on the above findings, the investigator concluded that, homestead gardening knowledge of the rural women had significant and positive relationship with their communication exposure. This indicates that the higher the homestead gardening knowledge of the rural women, the higher was their communication exposure towards various media.

4.3.9 Relationship between organizational participation of the rural women and their communication exposure

The relationship between organizational participation of the rural women and their communication exposure was examined by testing the following null hypothesis: "There is no relationship between organizational participation of the rural women and their communication exposure."

The computed co-efficient of correlation between organizational participation of the rural women and their communication exposure was found 0.225 (Table 4.3). This lead to the following observations:

Firstly, the computed value of r (r=0.225) was found to be larger than the concerned tabulated value (r = 0.196) with 98 degree of freedom at 0.05 level of probability. . Secondly, the null hypothesis was rejected. Thirdly, a positive trend of relationship was found to exist between organizational participation and communication exposure of the rural women.

Based on the above findings, the investigator concluded that, organizational participation of the rural women had significant and positive relationship with their communication exposure.

4.4 Rank order of Use of Different Communication Media used by the Rural Women regarding Homestead Gardening Information

Use of 12-selected communication media was investigated in this study. Extent of use of different communication media was measured according to the Media Use Index. The twelve (12) communication media have been arranged in rank order in table 4.4 on basis of their Media Use Index (MUI).

Table 4.4 Rank Order of Communication Media according to their MUI

Communication Media	Media Use Index (MUI)	Rank Order
Radio	325	1
Neighbor	270	2
Television	245	3
Experienced Women	230	4
Group Discussion	215	5
Relatives	192	6
Result Demonstration	165	7
Sub-Asst. Agriculture officer	152	8
Training	144	9
NGO worker	130	10
Printed Material	88	11
Newspaper	56	12

The information presented in table shows that there were variations in the extent of use of different media. Radio was used as the communication media to the highest extent (325) and it was closely followed by neighbor (270), television (245), experienced women (230) and so on.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

5.1.1 Introduction

Bangladesh is an Agriculture based country. It is an over populated country also. For that reason the area under cultivation is limited and also continuously decreasing due to conversion of cultivable land. Therefore, to maintain the level of Agricultural production to the level of national requirement, optimum utilization of land and the homestead area has become an utmost necessity. Through planning, management and application of appropriate technology, homestead land may attain its best utilization. Though the rural women have more or less some restriction to conduct their activities out side in the field, but they can contribute to raise family economy and nutritional status by producing with in homestead. To achieve this they have to adopt the required technologies and to accept suggestions delivered by the change agents. By proper understanding of the subjects, the performance of any job may be easier.

To the context communication media bears a great value for agricultural extension work. Communication media, such as individual, group and mass media can convey the useful information. Appropriate suggestions at appropriate time of cultivation of homestead crops. Women can learn technical know how about

homestead gardening besides household work which may supplement mainstream of agricultural production and may enhance national economy too.

In the light of this noble task the researcher has planned to undertake a study on the communication exposure of rural women regarding homestead gardening. The study was conducted with the following specific objectives.

1. To determine and describe some selected characteristics of rural women. The selected characteristics were:
    - ❖ Age,
    - ❖ Education,
    - ❖ Family Size,
    - ❖ Land Possession,
    - ❖ Homestead Garden size,
    - ❖ Gardening experience,
    - ❖ Time spent in gardening,
    - ❖ Homestead Gardening knowledge,
    - ❖ Organizational participation.
2. To determine the extent of communication exposure of rural women regarding homestead gardening.
3. To explore the relationship between the selected characteristics of the rural women and their communication exposure regarding homestead gardening.
4. To examine the rank order of different use of communication media by the rural women.

5.1.2 Methodology

The rural women of one village namely Tebaria in Kumarkhali Upazilla of Kushtia district constitute the population of this study. One hundred of rural women were randomly selected as the sample of the study from a population of 875 of the study area. The communication exposure of the rural women regarding homestead gardening was the dependent variable. The selected characteristics of the rural women were the independent variables. The collected data were coded, compiled, tabulated and analyzed in accordance with the objectives of the study. Various statistical measures were used in describing the variables.

For exploring the relationship between the selected characteristics of the rural women and their communication exposure regarding homestead gardening, coefficient of correlation 'r' was used.

5.1.3 Findings

A summary of the findings in respect of the specific objectives of this study is given below:

5.1.3.1 Characteristics of the rural women

Age:

Age of rural women ranged from 16 to 53 years. The average age of the rural women was 37.09 years. The highest proportion (51 percent) of the rural women were in the middle aged category compared to 26 percent being young and 23 percent old aged category.

Education:

The education of the rural women ranged from 0 to 12 years of schooling. The average education of the rural women was 3.75 years of schooling. The highest proportion (59 percent) of the rural women had primary level of education while 19 percent had no education, 18 percent had secondary and 4 percent had above secondary level of education.

Family size:

The family size of the rural women ranged from 2 to 9. The average family size of the rural women was 5.64. The highest proportion (86 percent) of the rural women had medium families compared to 4 percent had small families, and 10 percent had large families.

Land possession:

Land possession of the rural women ranged from 0.03 to 3.74 hectares. The average land possession of the rural women was 2.296 hectares. The highest proportion (67 percent) of the rural women had medium land possession compared to 21 percent had small land possession and 12 percent had large land possession.

Homestead garden size:

The homestead garden size of the rural women ranged from 0.003 to 0.03 hectares. The average homestead garden size of the rural women was 0.0065 hectares. The highest proportion (45 percent) of the rural women had medium homestead garden

size compared to 33 percent had small homestead garden size and 22 percent had large land homestead garden size.

Gardening experience

The gardening experience of the rural women ranged from 2 to 15 years. The average gardening experience of the rural women was 8.81 years. The highest proportion (78 percent) of the rural women had medium gardening experience compared to 12 percent had low gardening experience and 10 percent had high gardening experience.

Time spent in gardening

The time spent in gardening activities of the rural women ranged from 2 to 6 hours per day and average time spent in gardening of the rural women was 3.95 hours. The highest proportion (91 percent) of the rural women spent medium time in gardening compared to 4 percent of rural women spent low time and 6 percent of the rural women fell in high time spent category in gardening.

Homestead gardening knowledge

The homestead gardening knowledge of the rural women ranged from 10 to 36. The average homestead gardening knowledge score of the rural women was 23.87. The highest proportion (72 percent) of the rural women had medium homestead gardening knowledge compared to 11 percent had low homestead gardening knowledge and 17 percent had high homestead gardening knowledge.

Organizational participation

The organizational participation scores of the rural women ranged from 0 to 7. The average organizational participation score of the rural women was 1.82. The highest proportion (63 percent) of the rural women had low participation compared to 24 percent had no participation and 13 percent had medium participation.

5.1.3.2 Communication exposure of the rural women regarding homestead gardening

It was found that 81 percent of the respondents had low to medium communication exposure on twelve communication media regarding homestead gardening while 19 percent had high exposure.

5.1.3.3 Relationship of the selected characteristics of the rural women with their communication exposure

This deals with the relationship of the nine selected characteristics of the rural women with their communication exposure regarding homestead gardening information.

Coefficient of correlation 'r' was used to determine the relationship between the dependent and independent variables. The variables were:

Independent Variables:

1) Age, 2) Education, 3) Family Size, 4) Land Possession, 5) Homestead Garden Size, 6) Gardening Experience, 7) Time Spent in Gardening, 8) Homestead Gardening Knowledge and 9) Organizational Participation.

Relationship

Age

Age of rural women had no relationship with their communication exposure.

Education

Education of the rural women had positive and significant relationship with their communication exposure.

Family size

There was no relationship between family sizes of the rural women and their communication exposure regarding information on homestead gardening.

Land possession

Land possession of the rural women had positive and significant relationship with their communication exposure regarding homestead gardening information.

Homestead garden size

Homestead garden size of the rural women had no relation with their communication exposure.

Gardening experience

Gardening experience of the rural women had positive and significant relationship with their communication exposure regarding information on homestead gardening information.

Time spent in gardening

Time spent in gardening had no relationship with communication exposure of the rural women.

Homestead gardening knowledge

Homestead gardening knowledge of the rural women had significant and positive relationship with their communication exposure.

Organizational participation

Organizational participation of the rural women had a positive and significant relationship with their communication exposure regarding homestead gardening information.

5.1.3.4 Rank order according to MUI:

Extent of use of different communication media was measured according to the Media Use Index (MUI). According to the MUI, it was found that the rural women regarding homestead gardening information used 12 communication media. Radio was used as communication media to the highest extent (325) and it was closely followed by Neighbor (270), television (245), experienced women (230) and newspapers were used to the lowest extent (56).

5.2 Conclusions

Findings of the study and their logical interpretations in the light of other relevant facts prompted the researcher to draw the following conclusions:

1. The study revealed that majority (81 percent) of the rural women had low to medium communication exposure while only 19 percent of the rural women had high exposure on various communication media. For increasing homestead gardening production it is essential to have better communication exposure of the women for successful operation of various farming practices. Therefore, the findings lead to the conclusion that the rural women had inadequate communication exposure, which might result poor yield from homestead gardening.

2. As regards individual media-wise communication exposure of the rural women, it was found that individual media such as neighbor and experienced women were mostly used by the rural women. Radio as a mass media and group discussion from group media were mostly used by the rural women regarding homestead gardening. Hence, it may be concluded that the women were mostly exposed to localite sources than those of the cosmopolite sources.

3. Information of this study showed that very few had contact with Newspaper. This may be due to the reason that the newspaper may not be available or if available the women could not afford it or if could afford, no culture has been developed in the rural area for reading newspaper by the women. Therefore, it

may be concluded that the women were lacking of wide range of coverage of information on gardening activities because of poor exposure of newspaper.

4. Education of the rural women had positive and significant relationship with their communication exposure. This implies that the increase of level of education of the rural women, their communication exposure regarding homestead gardening activities also increased. This means that the more the education of the rural women the more exposure of women towards communication media.

5. Land possession of the rural women had positive and significant relationship with their communication exposure. This implies that with the increase of land possession of the rural women, their communication exposure regarding homestead gardening activities also increased.

6. The statistical analysis showed a strong correlation between gardening experience and communication exposure lead to the conclusion that the communication exposure helps the women to be more experienced toward homestead gardening.

7. Homestead gardening knowledge of the rural women had a positive and significant relationship with their communication exposure regarding homestead gardening. This implies that increase of homestead gardening knowledge of the rural women, their communication exposure was also increased. The findings lead to the conclusion that communication exposure of

the rural women enhances their level of homestead gardening knowledge resulting better output from homestead gardening.

8. Organizational participation of the rural women had a positive and significant relationship with their communication exposure regarding homestead gardening. This indicates that with the increase of organizational participation of the rural women, their communication exposure is also increased. Organizational participation of the women increases the chance to share their knowledge and experience with other fellow participants. Thus, it may be concluded that organizational participation enables women to broaden their mental make-up as well as decision-making abilities towards the choosing of appropriate communication media for getting useful information.

9. The statistical analysis revealed that the characteristics such as age, family size, homestead garden size and time spent in gardening activities of the rural women had no significant relation with their communication exposure. This means that the characteristics were independent of the communication exposure of the rural women.

5.3 Recommendation

Based on the findings and conclusion of the study, the recommendations are presented below in two sub sections:

5.3.1 Recommendation for policy implication

1. The study revealed that the rural women had inadequate exposure with various communication media, which might result poor output from homestead gardening. Therefore it may be recommended that the concerned GO and NGOs engaged in extension activities with the rural women should make necessary arrangements for improving the communication exposure of the rural women.

2. Young aged rural women constituted about $1/4^{th}$ of the study and they are the key operator in homestead gardening activities. Young aged women can play a very useful role in the adoption of improved gardening practices on homestead gardening activities. It is therefore recommended that in conducting extension program, the concern agency should involve as many as young rural women.

3. Considering the need for some education to understand the information and skill of homestead gardening activities on the one hand the considerable proportion of the rural women having no education on the other, it is recommended that the arrangement should be made for adult education program for the rural women as early as possible.

4. Findings of the study indicated that there is no reasonable amount of homestead garden size for intensive homestead production. So, there is an urgent need to make intensive homestead gardening activities program for optimal utilization of the limited amount of homestead garden size. All

concerned organization and personnel should take necessary steps in this context.

5. Both radio and television are very important communication media in transferring modern agricultural technologies to the rural women. It is necessary to design, formulate and display more and more production oriented program in radio and television in such a fashion that rural women can enjoy the programs as well as can learn many technical aspects of modern agricultural technologies. Attempt should, therefore be made by the concerned authorities to use and utilize the mass media like radio and television as useful communication media to rural women in respect of technology adoption.

6. For encouraging adoption of homestead gardening practices by the rural women there is an urgent need for a sound system of communication media for providing adequate innovative information to the rural women.

7. The Department of Agricultural Extension (DAE) needs to pay more attention to ensure the availability of communication media to the women as much as possible regarding homestead gardening.

5.3.2 Recommendation for further study

1. It is suggested that similar study of this nature should be conducted in all field of Bangladesh to provide further valuable information to draw generalization regarding participation of rural women in communication exposure.

2. The present investigation explored the extent of relationship of some of the selected characteristics like age, education, family size, land possession, homestead garden size, gardening experience, time spent in gardening, homestead gardening knowledge and organizational participation. Besides, there are other factors, which may also influence the communication exposure of rural women regarding homestead gardening. Therefore, it is suggested to select other factors and assess the established relationship with the communication exposure regarding homestead gardening.

3. The study was limited to homestead gardening, in future, some other important income generating activities should be chosen to assess the communication exposure of rural women.

References

Ahmed, H. 1977. Use of Information Source by the farmer in the Adoption of Improved farm practices in Jute Cultivation. Unpublished M.Sc. (Ag. Ext. Ed.) Thesis. Department of Agricultural Extension and Teacher's Training Bangladesh agricultural University, Mymensingh.

Akhter. 1990. Involvement of Women in Homestead Production in a Selected Village of Tangail District. M.Sc. (Ag. Ex. Ed.) thesis, Department of Agricultural Extension Education, Bangladesh Agriculture University, Mymensingh.

Allen, P.J. 1985. Determinants of Information Source Selection of Farm Families in two North Florida Countries, Dissertation Abstracts International, Florida State University, U.S.A.

Ban, A.N. and Van Den. 1981. Interpersonal Communication and Diffusion of Innovations. In: Extension Education and Rural Development. Volume 7. International experience in communication and Innovation (Edited B.R. Crouch and S. Chamala). Chichester. U.K: John Wiley & Sons.

BBS. 2005. Statistical Year book of Bangladesh. Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples Republic of Bangladesh.

Bhagat, R. and P. N. Mathur. 1985. Mass Media and Changing Life Style of Farm women in Delhi Territory, Indian Journal of Extension Education. 21(3&4): 131.

Bhuiyan, M.S.I. 1988. Use of Communication Media by the Farmers in the Adoption of Selected Improved Farm Practices in Rice Cultivation. M. Sc. (Ag. Ex. Ed). thesis, Department of agricultural Extension and Teacher's Training, Bangladesh agricultural University, Mymensingh.

Dhande, R.J. 1982. Role and Utilization of Farm Information Sources by the Farmers in Adoption of the Agricultural Innovations in Panchayet Samiti Umred, M.Sc. (Ag. Ex. Ed.) Thesis, Punjabrao Krishi Vidyapeeth, Akola. Thesis Abstract Vol XI, No. 1. March 1985.Directorate of Publications, Haryana Agricultural University, India.

Elahi, K. 1977. Role of communication in rural development. Journal of Rural Development Administration. 12 (1): 42-47

Gura, S. 1986. "Extension Approaches to reach Rural Women". pp. 1-9: Training for Agriculture and Rural Development. FAO Economic and Social Development Series No. 38. Rome, Italy.

Halim, A. 1982. Schooling, Extension and Agricultural Production. *Bangladesh Journal of Agriculture*, 6(4): 71.

Haque, M.M. 1972. Information Sources Used by the IRRI Rice Growers of Thakurgaon Thana Co-operative Tube-well Project. M.Sc. (Ag. Ex. Ed.) Thesis, Department of Agricultural extension Education and Teacher's training, Bangladesh Agricultural University, Mymensingh.

Hossain, M.D. 1981. Relationship of Selected Characteristics of the Jute Growers with their Adoption of Improved Practices of Jute Cultivation. M.Sc. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

Hooda, R.S. 1987. Study of Communication Behaviour of Farmers in Hisar District with Special Emphasis of Associated Constraints, M.Sc. (Ag. Ex. Ed.) Thesis Haryana Agricultural University, Hisar, Thesis Abstract, Vol. XV, No- 4, December, 1989. Director of Publications, Haryana Agricultural University, Hisar, India.

Islam, M.S. 1994. Women's Participation in Selected Agricultural Income Generating Activities under Rural Development Program of BARC at Shibpur Thana in Narshingdi district. An M.S. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

Jange, T.N. and A.V. Petal. 1981. Adoption of Individual and Package of Improved Practices by Package and Non-package Groundnut Farmers in the Gambia. *Nigerian Journal of Agricultural extension*, 1(1): 24-31.

Karim, A.S.M.Z. 1973. Adoption of Fertilizers by the Transplanted Aman Rice Growers in Keotkhali Union of Mymensingh District. M.Sc. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension and Teachers' Training, Bangladesh Agricultural University, Mymensingh, Bangladesh.

Kashem, M.A. and E.J. Gwyne. 1988. Small Farmers Contact with Information Sources and its Relationship with Some Selected Characteristics. *Bangladesh Journal of Extension Education*.3(1):1-7.

Kashem, M.A. and A. Halim. 1991. Use of Communication Media in the Transfer of Technologies of Farmers: a Farm Level Study. Research Monograph No. 2, Department of Agricultural Extension Education. Bangladesh Agricultural University, Mymensingh.

Kayemuddin, M. 1988. Extension Service for Rapid Development, Bangladesh Observer. March 6, 1988. P. 5.

King, P.G. and T.J. Bembridge. 1988. Opinion Leaders Information Sources: Implications for Agricultural Extension. *South African Journal for Extension Education*, 17: 1-4.

Kumari, N. 1988. An experimental study on communication effectiveness of selected mix media for health education. An M.S. Thesis, Haryana Agricultural University, Hisar, India.

Kadam, K. R. and V.B Sabale. 1983. Communication Media Utilization by sugarcane Growers. Joumal of Mahrastra Agricultural University.10(3):331-333.

Latif, M.A. 1974. How Farmers Receive Agricultural Information, M.Sc. (Ag.Ex.Ed.) thesis. Department of Agricultural Extension and Teacher's Training Bangladesh Agricultural University, Mymensingh.

Mallica, V. 1991. "Communicating with Women". Agriculture Information Development Bulletin, 3(2): 3.

Miah, M.A.M. and M.J. Rolls. 1990. the contact Farmers in a District in Bangladesh.

Bangladesh Journal of Training and Development, 3(2): 39-47.

Miah, M.A.M. and S. Parveen. 1993. Income of Women from Homestead Farming. Sent for publication in the Bangladesh Journal of Extension Education. Dept. of Agril. Ext. Edn., BAU, Mymensingh.

Miah, M.A.M. and S. Parveen. 1994. "Time Spent in Farming Activities by the Rural Women". *Bangladesh Journal of Training Development*, 7(2): 41-46.

Nataraju, M.S. and N.B. Channergowda. 1985. Source of Information Utilized for Adoption of improved Dairy Management Practices by Small, Marginal Farmers and Agricultural Laborers. Indian Journal of Extension Education. 21(3&4): 99-100.

Oni, D.O. 1983. The effectiveness of Selected Extension Teaching Method and their influence by farmers in Kwara State of Nigeria. Dissertation Abstracts International, Kansas State University, 1983.

Opare, K.D. 1980. Innovation Adoption Behavior Ghana Cocoa Farmers. Agricultural Administration, 7(4): 289-296. Department of Agricultural Extension, Ghana University, Legon, Ghana.

Orojobi, J.O. 1980. Source of Agricultural Information and Advice Available to Nigerian Farmers; Advantage and limitations. Ahmado Bello University, Zaria, Nigeria.

Parveen, S. 1993. Attitude of Rural women towards Homestead Agricultural Production. An M.Sc. Thesis, Dept. of Agril. Ext. Edn., BAU, Mymensingh.

Patil, R.B., B.R. Desaie and M.B. Kibey. 1984. Farm Information Surce Used by the Contact and Non-contact Farmers Under Training and Visit System in Dhule District. Journal of Maharashtra Agricultural University, 11(3):334-335.

Rahman, M.M. 1974. An Investigation into the Use of Communication Sources by the registered Jute Seed Grower of Meherpur Thana. An M.Sc. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension and Teacher's Training, Bangladesh Agricultural University, Mymensingh.

Roy, B.L. 1981. Communication Behavior of the Small Income Farmers Receiving Information on the Use of Balanced Doses of Fertilizer for Transplanted Aman Cultivation in Agriversity Extension Project Area. An M.Sc. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension and Teacher's Training, Bangladesh Agricultural University, Mymensingh.

Samanta, R.K. 1986. Effective Agricultural Communication Strategy: Need for Efficient Transfer of Technology. *Bangladesh Journal of Extension Education,* 1(2): 91-100.

Sheahan, 1979. Farmer's use of Media, Melbourne Notes on Agricultural Extension. Roseworthy Agricultural College, South Australia, Australia.

Van Den Ban, A.W. 1987. Communication Systems between Agricultural Research and the Farms, the Netherlands Way. *Journal of Extension Systems,* 3(1):26-34.

Wahyuni, S. 1990. "Sociological variables influencing women's role in small holder farming systems". P. 40 in: *Compilation of abstract.* Asian Farming System Research and Extension Symposium 1990, 19-22 Nov., AIT, Bangkok, Thailand.

APPENDIX - A

Department of Agricultural Extension & Information System

Sher-e-Bangla Agricultural University, Dhaka.

Interview Schedule For The Study of

Communication Exposure of Rural Women Regarding Homestead Gardening.

Serial No :

Name of the respondent :

Address :

(1) How old are you? ---------- Years.

(2) Level of education :

(a) Don't read and Write. ( )

(b) Only can sign. ( )

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

4. Family Size:

How many members do you have in your family?----------

4. Land Possession and Homestead garden size:
According to use please indicate the area of land that your family posses.

Sl. No.	Type of land use	Area of land	
		Local unit	Hectare
1.	Homestead non-farm area		
2.	Homestead garden size		
3.	Own cultivated area		
4.	Own land given to others on borga		
5.	Land taken from other son borga		
6.	Land taken from others on lease		
7.	Pond		
8.	Others		
	Total		

5. Gardening experience

Please indicate how many years you are actively involved with homestead gardening activities? ---------- years.

6. Time spent in gardening

How many hours in a day (24 hours) you have spent for gardening activities?

---------- Hours.

7. Homestead Gardening knowledge :

Please answer the following question :

Sl. No.	Question	Score assigned	Score Obtained
1.	Name two very nutritious vegetable	2	
2.	Name two Summer vegetable	2	
3.	Name two forest tree	2	
4.	Name two winter vegetable	2	
5.	Mention is the time for preparing land for winter vegetable.	2	
6.	Indicate two symptoms of mosaic disease of papaya.	2	
7.	Name two variety of Brinjal.	2	
8.	Name two important disease of chilli	2	
9.	Mention the symptoms of attack by aphid	2	
10.	Name two disease of sweet gourd	2	
11.	Name two insecticides for controlling insect pest of vegetables	2	
12.	Indicate one symptom of attack by fruit and shoot borer of brinjal	2	
13.	Mention two advantages of applying organic manure to land.	2	
14.	Name two chemical fertiligers.	2	
15.	Name two green manuring plants	2	
16.	Indicate two major elements for compost preparation	2	
17.	Name two symptoms of mosaic disease of lady's finger	2	
18.	Name two year round vegetable.	2	
19.	Name two disease of cabbage	2	
20.	What is the time for preparing land for lady's finger.	2	
	Total	40	

8. Organizational participation:

Please indicate the nature of your present or past participation in the following organization.

Sl. No.	Name of organization	No Participation	Duration (Years)		
			Ordinary member	Executive member	Officer
1.	NGO organized society				
2.	Women society				
3.	Village Perished				
4.	Union Council				
5.	Others				

9. Please indicate which of the following Communication media you used in receiving information on homestead gardening activities.

Sl. No.	Communication media	Frequency of communication
A.	Individual Media	
1.	Neighbour	Time/Month
2.	Relative	,,
3.	Experienced women	,,
4.	Sub Assit. Agril. Officer	Time/Quarter
5.	NGO Worker	,,
B.	Group media	
1.	Group discussion	Time/ year
2.	Training	,,
3.	Result demonstration	,,
C.	Mass media	
1.	Printed material	Time/ year
2.	Newspaper	Time/Month
3.	Radio	,,
4	T.V.	,,

Signature of the interviewer

Date :

APPENDIX B

Correlation Matrix of the dependent and independent variables (N = 100)

Variables	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}
X_1	1.000									
X_2	– 0.021	1.000								
X_3	0.423**	-0.176	1.000							
X_4	-0.047	0.187	-0.002	1.000						
X_5	0.100	0.036	0.165	0.179	1.000					
X_6	0.290**	0.146	0.489**	0.051	0.137	1.000				
X_7	0.095	0.031	0.069	0.075	0.260**	0.121	1.000			
X_8	0.299**	0.083	0.342**	0.114	0.161	0.530**	0.143	1.000		
X_9	-0.018	0.171	0.164	-0.054	0.022	0.119	-0.057	0.003	1.000	
X_{10}	0.110	0.444**	0.187	0.294**	0.180	0.493**	0.187	0.309**	0.225*	1.000

* Correlation is significant at 0.05 level of probability

** Correlation is significant at 0.01 level of probability

Tabulated value at 98 degree of freedom,
0.05 level of significance = 0.196
0.01 level of significance = 0.256

Variable's code

X_1 Age

X_2 Education

X_3 Family size

X_4 Land Possession

X_5 Homestead Garden Size

Variable's code

X_6 Gardening Experience

X_7 Time Spent in Gardening

X_8 Homestead Gardening Knowledge

X_9 Organizational Participation

X_{10} Communication Exposure