ATTITUDE OF RURAL WOMEN TOWARDS GOAT REARING IN A SELECTED AREA OF MEHERPUR DISTRICT

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ATTITUDE OF RURAL WOMEN TOWARDS GOAT REARING IN A SELECTED AREA OF MEHERPUR DISTRICT

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Dedicated to

My beloved parents

CERTIFICATE

This is to certify that thesis entitled **"Attitude of rural women towards goat rearing in a selected area of Meherpur district"** submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka-1207, in partial fulfilment of the requirements for the degree of **MASTER OF SCIENCE in AGRICULTURAL EXTENSION AND INFORMATION SYSTEM** embodies the result of a piece of *bona fide* research work carried out by Md. Abdul Aziz, Roll No. 00138, Registration No. 23866/00138 under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

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

.....

(Prof. Mohammad Hossain Bhuiyan)
Professor
Supervisor

December, 2005
Dhaka, Bangladesh

ABBREVIATION AND ACRONYMS

et al= and other
AEO=Agriculture Extension Officer

Ag. Ext. Ed. =Agricultural Extension Education

AI= Attitude Index

BAU= Bangladesh Agricultural University

BBS= Bangladesh Bureau of Statistics

BS= Block Supervisor

FFS= Farmer's Field School

FSRDP= Farming System Research Development Project

GDP= Gross Domestic Product

GOs= Government Organizations

GTI= Graduate Training Institute

IPM= Integrated Pest Management

Max= Maximum

Min= Minimum

SD= Standard Deviation

NGOs= Non-Government Organizations

UAO= Upzila Agriculture Officer

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(The Author)

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ATTITUDE OF RURAL WOMEN TOWARDS GOAT REARING IN A SELECTED AREA OF MEHERPUR DISTRICT

BY
Md. Abdul Aziz

THESIS ABSTRACT

The study was carried out to assess the extent of attitude of rural women in goat rearing. Relationships between nine selected characteristics of rural women with their attitude in goat rearing were measured. Problems faced by the rural women towards goat rearing were also studied for better understanding of the situation. Data were collected from a proportionate random sample of hundred housewives of three villages of Gangni Upzila under Meherpur district. The extent of attitude of rural women in 20 items of goat rearing was measured through a five point Likert-type scale. A comparative attitude index was computed in twenty statements by using attitude scale. Co-efficient of correlation 'r' was computed to find out relationship between attitude of rural women in goat rearing and their selected characteristics.

The highest percentage (65%) of the rural women had moderate favorable attitude in goat rearing. Rest of the 29% and 6% respondents were favorable and less favorable categories respectively.

Age, farm size, family income, credit availability, grazing land availability of the rural women had no significant relationship with their attitude in goat rearing. However, education and knowledge about goat rearing of the rural women had positive relationship with their attitude towards goat rearing and the relationship was highly significant. Besides, family size and communication exposure of the rural women were significant. "Goat dies due to plague disease" occupied first position among the problems in goat rearing.

CHAPTER 1

INTRODUCTION

General Background

Bangladesh is a densely populated country having about 130.70 millions of people in its 147570 sq. km of area. About 928 people live per sq. km (BES, 2005). About 49 percent of population of the country is female (BBS, 2002). Women are the most important part of human resources who need attention for their development. There is a close relationship between the status of women and the socio-economic development in any country.

The literacy rate of women (41.5) is much lower compared to the literacy rate of men (50.6) in Bangladesh. It is one of the poorest countries in the world in terms of per capita income, which is 470 US dollar (BBS, 2005). To ensure a balance socio-economic development of the country, amelioration of women with a change in the status is a precondition. This may be achieved only when there is an increased participation of women in development activities.

Women play the most dominant part in rearing goat. The role of woman in goat keeping is significant in the rural families and it is the most important means through which rural women are able to contribute meaningfully to the cash needs for themselves and their family members. Women who stay at home, goat rearing is the most useful way of their earning. Livestock contributes about 3.1 percent to

the GDP of Bangladesh and therein total foreign exchange earning accounts for about 6.2 percent (Alam, 1995). But at present it's contribution is 2.97 percent where total agricultural contribution is 21.91 percent of the GDP. Milk and meat production are 9.6 and 2.03 million metric tons respectively (BES, 2004-05)

Goat production varies in different parts of the world. Since production cost of goat is less than cattle and buffalo, goat farming requires small initial investment and as such low risk of loss due to individual death. On the other hand, this species can easily be managed by women and children. Black Bengal goat (Appendix '1') is developed in this country through natural selection without any intervention by man. In recent years, Bangladesh government has undertaken a project on "poverty alleviation through expansion of goat breeding across the country". Under this project some advantages for the rural women are given below:

1. It creates employment opportunity.
2. It motivates income-generating activities.
3. It awakes the neglected section of society.
4. It provides scope for preserving and improving 'Black Bengal' variety

Sagol palon Mannual, 2003, quoted from FAO, 1996, Population Census states that from ancient period goat rearing has an important role for the production of milk, meat and hide. There are about 677 million goat in the world. Of them 64 percent in Asia, 30 percent in Africa, 3.3 percent in North and South America, 2.3 percent in Europe and 0.4 percent in Ocenia .

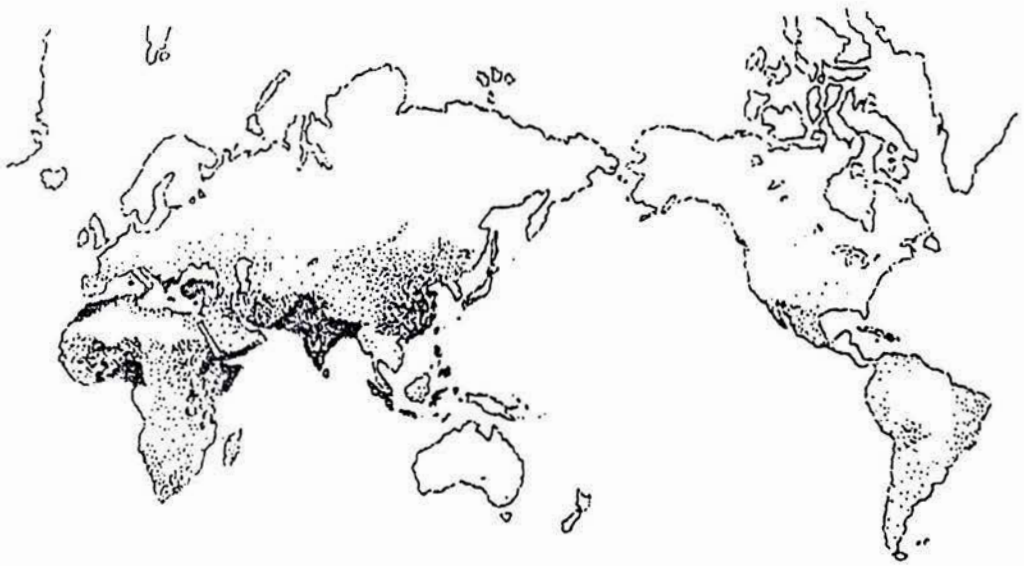

Fig.1.1 Dot map of goat distribution in the world. One dot expresses 100000 numbers of goats.

In Asia 71 percent goat are reared by small farmers. In case of Bangladesh out of 2 crore goats, 52 percent are reared by landless farmers (Fig.1.2).

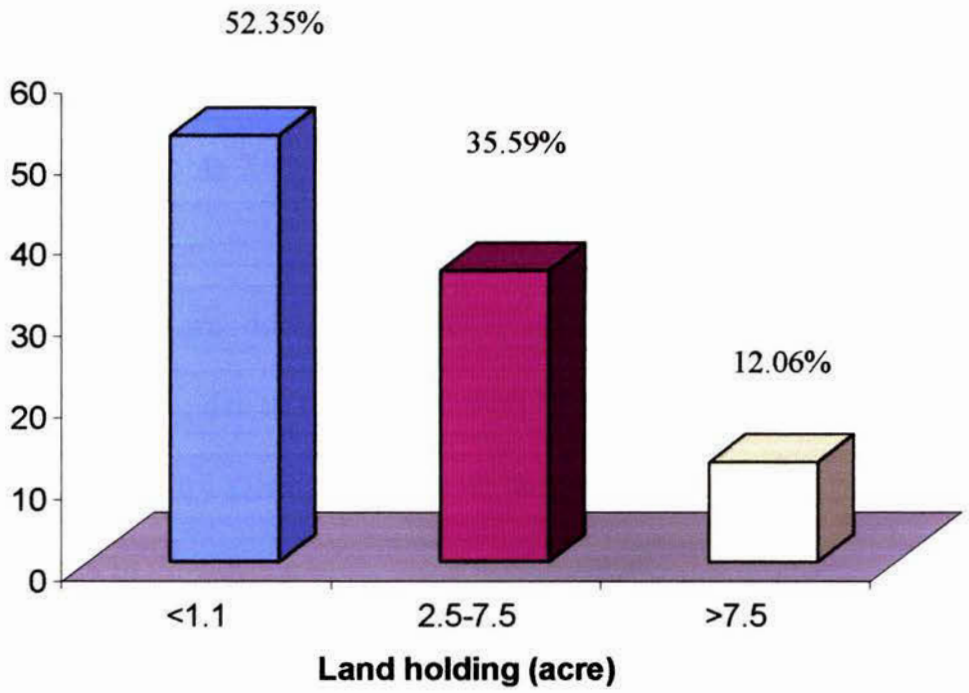

Fig. 1.2 Percengage of goat according to land holding

Source:Sagol palon manual, 2003

In Bangladesh, the average number of goat per farm is 4, which is equal to the south-east Asian countries, like Indonasia, Malaysia and Thailand. Forty one percent farm income comes in some parts of Bangladesh from goat rearing.

Besides, leather is the best export goods in Bangladesh that earn 25 crore Taka per year (Chowdhury *et al.*, 2002).

A total of 14483626 ha land area is in Bangladesh. Of these 1294803 ha (9 percent) are low land area, 2178045 ha (15 percent) are urban, rivers and houses area and rest of 11010778 ha (76 percent) high land area, which is appropriate for goat rearing. Except high hill and deep forest, all the high lands and it's climates (Fig.1.3) are very suitable for goat rearing (Sagol palon manual, 2003).

In Bangladesh men are dominated over women. The situation seems to be changing considerately due to the introduction of new technologies in agriculture, like goat rearing, poultry raising, homestead farming etc. Access to goat rearing is a new dimension in the development process of women.

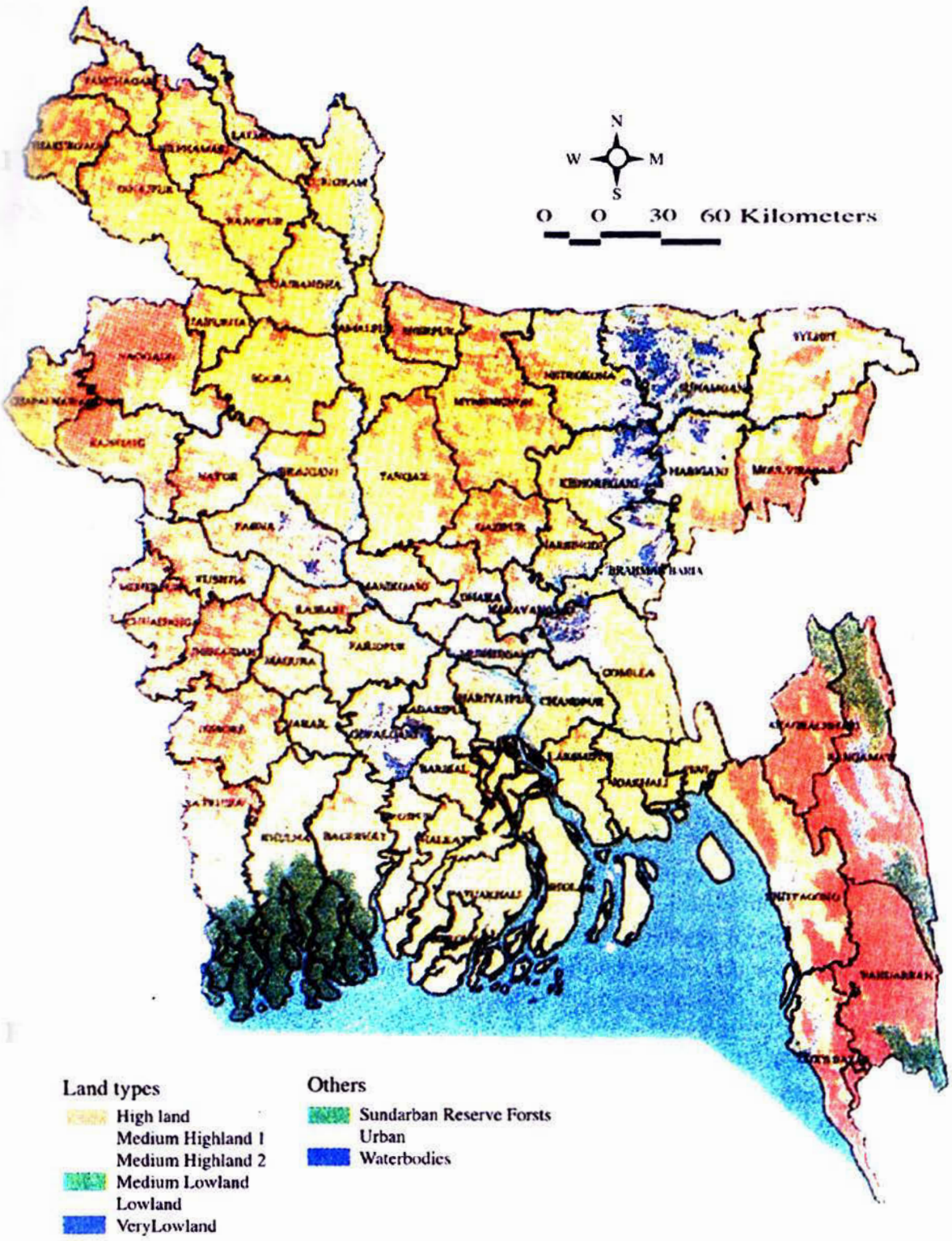

Fig : 1.3 Map of Bangladesh showing topography for goat rearing.

Moreover, a vast number (approximately 40 percent) of our rural people are landless and about 70 percent of the landowners are small farmers. Landless families possess a small piece of land in the homestead area. Women of these landless families cultivate vegetables, raise poultry, rear goats and earn money more than medium and large farm sized family (Halim, 1991). The present government of Bangladesh has initiated goat rearing program for rural women with a view to accord them financial empowerment along with poverty alleviation. No program is supposed to be successful if the beneficiaries lack positive attitude. So, it is wise to study attitude of people before inception of a development program.

Since attitude predisposes an individual to act in a predictable fashion towards an object, idea or situation to which she/he is exposed to. Extension workers/change agents will be better equipped if they have an understanding of the farmers, attitude towards different available technology. Agricultural Extension Service needs to develop sound plans and proceed for improving knowledge of the rural women in various aspects of goat rearing.

Statement of the problem

In rural Bangladesh, women are the key operators of household activities. Women can play vital roles according to economic demand of farm families and other farm activities by rearing of goats. But due to lack of adequate knowledge and favorable attitude towards goat rearing, they are not able to maximize the production of goat. Housing of goat is one of the major problems associated with the goat keepers in the study areas. As the marginal farmers maintain most of the goat population, they do not have economic

ability to house them separately. Grazing is only the means of feeding the animals on the banks of rivers, canals, roadsides, around the bushes and fields. During the critical months of summer, winter and rainy season, there is an acute shortage of green grasses in the field and farmers do not have any alternative sources of feeding their animals except collecting some tree leaves, household scrapes and kitchen wastes. As a result, a good number of goats do not produce milk after kidding and their mothering ability is very poor. Therefore, the present study entitled, "Attitude of rural women towards goat rearing in selected area under Meherpur district" has undertaken to answer the following questions:

1. What is the extent of attitude of women in goat rearing?
2. What are the characteristics of women who participate in goat rearing?
3. Is there any relationship between the attitude of women in goat rearing and their selected characteristics?
4. What problems they are facing in goat rearing?

Specific Objectives

The following specific objectives have been drawn in order to give proper direction to the study:

1. To determine and describe the selected socio-economic characteristics of goat rearing women, (The selected characteristics are: Age, Education, Family size, Farm size, Family income, Credit availability, Communication exposure, Grazing land availability and Knowledge about goat rearing)
2. To determine the attitude of rural women towards goat rearing,
3. To explore the relationship between selected characteristics of rural women and their attitude towards goat rearing,
4. To identify and describe the problems faced by the rural women in goat rearing.

Justification of the study

The women involved with homestead agricultural production activities such as vegetables, fruits, timber, domestic animals (goat and sheep) and poultry to supply food and to increase family income. Women are the key operators of the homestead production activities. Government has also given emphasis to involve women in goat rearing and inaugurated poverty alleviation program through goat breeding recently at BLRI, Saver investing Taka 546 core for the production of livestock and fisheries (Budget, 2004-05) with an estimation to earn about Taka 100 core could be earned from mutton and leather exports by raising the goat population in the country under the poverty eradication program of the government.

The above discussion indicates that the women involved in goat rearing will not only reduce poverty, but also help the unemployed women becoming self-reliant and satisfy national economic needs. The full economic gain from goat rearing can be explored only when they are reared following the proper modern packages recommended by the scientists. But rural women usually perform goat-rearing activities with their own background. So, time has come to increase the production level through motivation. The change agent should motivate the women to bring about change in goat rearing practices by changing their attitudes.

For better understanding and to bring about desired changes, the change agents should know the attitude of rural women towards goat rearing. This study would be useful for policy planners in order to develop an extension approach for goat rearing programme.

A little research has been done on attitude of rural women towards goat rearing in Bangladesh. Considering the above facts and findings the investigator has become interested to undertake a study entitled, " Attitude of rural women towards goat rearing."

Limitation and Assumptions

The role of women is changing fast under economic pressure in general and rural farmwomen in particular. Government has also given emphasis to involve women in goat rearing of the country because they are now a power in the nation-building process. Findings of the study will be helpful to planners, administrators and other associated with the development of rural women.

Considering time, money and necessary resources and also to make the study meaningful and manageable, the researcher has imposed certain limitations as stated below:

1. The study was confined to a selected area i. e. three villages of Solotaka union under Gangni upazila in Meherpur district.
2. There were many agricultural activities used by rural women. Out of them activities of goat rearing was considered for this piece of research.
3. There were many items under goat rearing, but only twenty important items were

   selected under goat rearing for measuring extent of attitude.
4. The researcher has to depend on the data accorded by the selected respondents.
5. Only the housewives of male-head family were considered as respondents of the study.
6. There was no established scale for attitude measurement of rural women.
7. There were many characteristics of rural women but only 9 of them were selected for the study.

Assumptions

The following assumptions were in mind of the researcher while under taking this study.

1. The statements selected for the measurement of attitude considered to be adequate and definitely reflect the attitude of the rural women.
2. The responses furnished by the respondents were reliable and valid.
3. Views and opinions furnished by the respondents included in the sample would be representative of the population.
4. The environmental conditions of the women were more or less similar throughout the study area.

Definition of terms

The terms, phases and words used in this study need clear understanding. For this purpose their definition and interpretation are stated below:

Attitude

Attitude means ones feeling, beliefs and actions towards an object and concept. It was operationalized developing an attitude scale following Likert method of summated ratings.

An attitude is a tendency to act toward against something in the environment which becomes thereby a positive or negative value (Bogurdus, 1931).

An attitude is a complex of feelings, desires, fears, conviction, prejudices or tendencies that have given a set or readiness to act to a person because of varied experiences.

Age

Age may be defined as the stretch of time between birth and the time of interview. It is measured in terms of actual year.

Education

Education referred to the development of desirable knowledge, skill and attitude through reading, writing and other related activities. It was measured in terms of actual years of successful schooling.

Family size

Family size refers to the actual number of members in the family of the respondent including herself, her husband, children, brother, sisters and any other permanent dependents that live and eat together.

Farm size

Farm size referred to the area of cultivated land either owned by the head of the household or other members of the same household.

Family income

Family income referred to the total earning of the entire family member from agricultural and non-agricultural sources during a year. It was expressed in Taka.

Credit received

Credit refers to the loan in cash or fund provided by the government or NGO to rural women for the purpose of goat rearing.

Knowledge about goat rearing

Literally 'knowledge' means knowing or what one knows about a subject, fact and person etc. is referred to the ability of a respondent to recall or recognize items of information related to goat rearing.

Grazing land

Grazing land refers to the pasture where animals including goats graze and eat growing grass. The grazing land may be fallow lands, bank of rivers, canals and road sides.

Communication exposure

It refers to the extent of contact with different communication media by the respondent women to acquire information and knowledge regarding goat rearing. The types of contact may be individual, group or mass.

Problems

Problem means any difficult situation which requires some actions to minimize the gap between "what ought to be" and "what is" The term problem refers to difficult situation faced by the rural women at the time of goat rearing.

CHAPTER 2

REVIEW OF LITERATURE

Review of literatures relevant to the major objectives of this study is conveniently presented in this chapter. This study is mainly related with rural women towards goat rearing. The researcher came across with some expert opinions about the concept of attitude and he tried his best to collect required information through searching relevant studies, Journals, bulletin, leaflet etc. This chapter deals with three sections. Section I: Review of Literature Related to concept, components, formation and measurement of attitude. Section II: Review of related literature regarding the relationship between attitude of rural women and their socioeconomic characteristics. Section III: The development of conceptual model for the study.

Concept of Attitude

Attitude, in social psychology, is a predisposition to classify objects and vents and to react them with some degree of evaluative consistency while attitude logically is a hypothetical constructs (i.e., they are inferred but not objectively observable), they are manifested in conscious experience, verbal reports, gross behavior and physiological

symptoms. The concept of attitude arises from attempt to account for observed regularities in the behavior of individual persons.

The quality of one's attitude is judged from the observable, evaluative responses he tends to make (Encyclopedia, 1968). Attitude has also been defined as a positive or negative feeling (or affect) associated with a specific psychological object. The objects may be any symbol, phrase, slogan, person, institution, ideal or idea (Anonymous, 1965). Actions and behavior of individuals are to a large extent determined by their attitudes.

Thurstone (1928) defined "Attitude as the effect for or against a psychological object."

Allport (1935) who devoted the major part of his life to research on attitude, defined the term in the following manner: An attitude is a mental and neural state of readiness, organized through experience, exerting experience or dynamic influence upon the individual, response to all objects and situation with which it is related.

McGrath (1966) referred to attitude as the learned orientations towards objects, or predisposition to behave in certain ways towards a given objects or a class of objects. An attitude has always an object; person, thing or concept and it may be general or specific.

Drever (1968) defined an attitude, which is more, or less a stable set or disposition of opinion interest, or purpose, involving expectancy of certain kind of experience and readiness with appropriate kind of response.

Components of attitude

Krech et al. (1962) explain attitude as a system of three interrelated components and the authors express as; "In defining attitude as systems, we are emphasizing the

interrelatedness of the three attitude components become mutually interdependent about an object are influenced by his feelings and action tendencies toward that object will tend to produce changes in his feelings and action tendencies toward it".

Another definition of attitude made by Triandis (1971), "an attitude is an idea changed with emotion which predisposes a class or actions to a particular class or social situations. "This definition suggests that attitude has three components. These components are cognition, affective and behavioral.

a) The cognitive component of an attitude consists of the belief of the individual about the object. This may also be said as understanding, knowledge and conception.

b) The feeling or affective component with the object. The object in felt to be pleasing or displeasing: it is liked or it is disliked.

c) The action or behavioral component of an attitude includes all the behavioral readiness associated with the attitude.

Attitude as a system bearing these three components is expected to be consistent but there may have some degree of inconsistency.

The study of Rosenburg and Hovland (1960) in Yale University on Communication and attitude represents attitude in the following models:

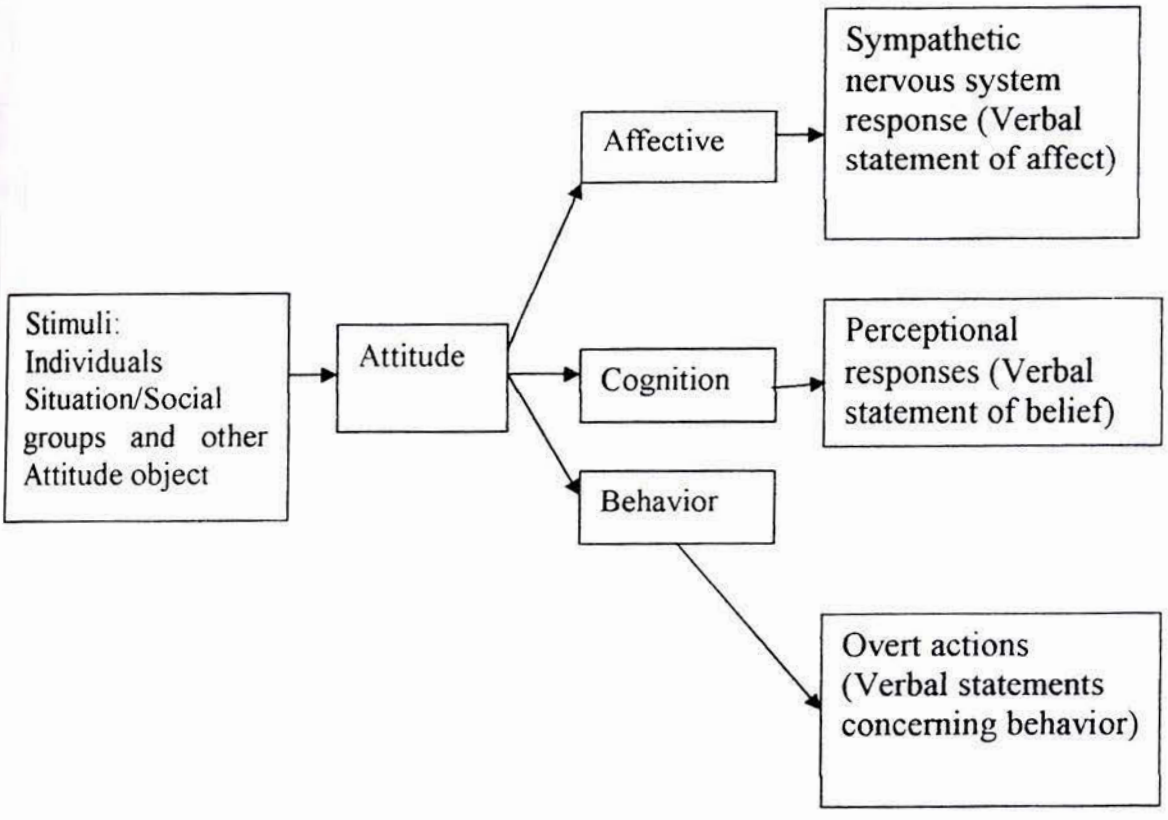

Figure2.1 A schematic conception of attitude (Rosenburg and Hovland, 1960)

In the Figure 2.1 the stimuli are grouped in a category that represents the attitude object. The attitude has three aspects, and each aspect is measured by a variety of subject responses. There are many concepts in social psychology closely related to attitudes. Many authors made differences between attitudes and these concepts but may found no differences. These are opinion, belief, value, faith, bias, doctrine etc.

Formation of attitude

The term 'attitude formation' is important within the individual in order to ensure more accurate prediction about their behavior and to have greater control over action.

Good (1945) in his Dictionary of psychology explained that attitudes are the by product of an individual's experience, and have their bases in inner urges acquired habits and the environmental influence by which he is surrounded.

Rosenberg (1956) studied on goals and attitudes and found that the individuals coping with various problems try to satisfy his wants and develop attitudes. He develops favorable attitude towards objects that satisfy his wants, final goal object will be favorably evaluated and develops unfavorable attitude towards objects that block the achievement of his goal.

Krech, Crutch Field and Ballachey (1962) from the results of different experiments and observations enlisted individuals wants, information, group affiliations and personality as factors for attitudes while coping with various problems in trying to satisfy his wants. He develops favorable attitudes towards objects and people that satisfy his wants and unfavorable attitude towards objects and persons that block the achievement of his goal.

Measurement of attitude

Getting information from data of social science is not so easy. There is no standard measurable unit to convey the meaning of the behavior of respondents to the people. But scientific survey measurement is a key tool. For this reason many scientists had

developed techniques for measuring attitude like any other psychological concept. Many opined that attitude may be measured from respondent's behavior and opinion. But these are not correct enough to assess one's attitude. Because, people are often unwilling to express opinions and may simply answer that they are undecided or do not know or are uncared of their attitudes towards a given psychological object. On the other hand in many situations behavior is designed to conceal feeling or behavior observed may be determined by factors data quantitatively. Because, for statistical analysis and scientific interpretation there must be quantitative data. In this regard, Thurstone (1928) made a good contribution by evolving a scale named as Thurstone scale for measuring attitudes. In 1928, he first adopted the methods of psychological scaling originated by year to the scaling of judgments of favorableness and unfavorables toward various objects.

Followed by Thurstone (1928), many others developed techniques to measure attitude.

1. The Method of Equal Appearing Intervals

This method was developed by Thurstone (1928). This technique is the approximation of interval scale. An interval scale is one on which the distances between the points on the measuring instrument are known and on which equal numerical distances represent equal distance along the continuum being measured (Selltiz et al., 1959). The first step to construct this scale is to collect a large number of statements usually ranging from 100-200 related to attitude being investigated. A large number of judges usually from 50 to 300, working independently is to classify this statement into eleven groups or piles. In the first pile, the judge places the statement he considered most unfavorable to the object,

in the second, then he considered the next most unfavorable and in the eleventh piles, the statements he considers most favorable. The sixth or the neutral positions defined as the point at which there is neither favorableness nor unfavorableness. The judges are not asked to give their own opinions, but merely to estimate the degree of favorableness or unfavorableness expressed by each statement. The scale value of a statement is computed as the medium position to which it is assigned by the judges. Statements that have too broad a scatter are discarded as ambiguous or irrelevant. The formal selections made, taking those statements usually about twenty, which scale values relatively, equally spaced along the continuum. The form of statements with which they agreed, the score for each respondent is the mean scale values or items with which he showed agreement.

2. Method of Summated Ratings

This method was developed by Likert (1937). The procedure used was more or less similar to the other Thurstone scale. The difference is that this method does not require panel of judge ratings. It is less cumbersome and takes less time to construct. This scale is more reliable than Thurstone (Selltiz, 1959, Young, 1966). The procedure for constructing this type of scale starts with the selection of a large number of statements which are considered relevant to the attitude being investigated, and are either clearly favorable or unfavorable. Statements failing to meet the prescribed standards are eliminated from the scale. The selected statements should be the expression or desired behavior as far as possible and not statements of facts. The favorable and unfavorable

statements are distributed randomly throughout the scale. The ambiguous statements are avoided and only clear, concise and straightforward ones are retained (Edward, 1957). There is no hard and fast rule about the number of statements. The half of the statements are so worded that the response of agreement indicates a favorable response to the rest a response of agreement indicates an unfavorable reaction. The favorable and unfavorable statements are distributed randomly throughout the scale. The respondents are asked to check whether they strongly agree, agree, undecided, disagree, and strongly disagree with each statement. These four alternative responses are assigned scores of 4, 3, 2, 1 or 1, 2, 3, 4 in proper order, the direction of scoring determined by the favorableness or un favorableness or each statement. Sometimes scores of 3, 2, 1, 0 and 0, 1, 2, 3 are preferred for weighting the statements. Each individual's total score is computed by adding his item score.

Review of literature related to the relationships between characteristics of rural women and their attitude toward goat rearing

No direct relationship on farmers selected characteristics and attitude towards goat rearing was found. However, literatures on other related studies are described below:

Age and attitude

Verma and Kumar (1991) conducted a study on comparison of farmer's attitude towards buffalo management practice in adopted and non-adopted village. The study revealed that there was relationship between age and attitudes towards buffalo

management in case of adopted village and they found no significant relationship between age and attitude of the farmers of non-adopted village.

Islam and Kashem (1997) observed that age of the farmer's had negative relationship with their attitude towards agrochemicals.

Noor (1995) found that age of the farmers had no relationship with their attitude towards the cultivation of high yielding varieties of potato.

Habib (2000) found that age of the BSs had no significant relationship with their attitude towards the use of agrochemicals.

Nurzaman (2000) observed in his study that age of the FFS and non FFS farmers had no significant relationship with attitude towards IPM.

Paul (2000) found that there was negatively significant relationship between age and attitude towards the use of USG

Mannan (2001) found that age of Proshika farmers had no significant relationship with their attitude towards the Ecological Agriculture Programme.

Bari (2000) reported in his study that age of the farmers had no significant relationship with their attitude towards hybrid rice AALOK 6201.

Education and Attitude:

Singh and Kunzroo's (1985) in their study revealed that there was positive and significant relationship between education of farmers and their attitude towards sheep and goats farming.

Kashem (1987) found that attitude towards community of the small farmers had significant positive correlation with their educational level.

Kumari (1988) from the study on communication effectiveness of selected mass media concluded that there was a significant association between education of the respondents (rural women) and their attitude towards the message and knowledge level.

Sulakshana (1988) found that the educational qualification of the extension personnel was positively related with their attitude towards extension work.

Verma and Kumar (1991) reported that there was positive and significant relationship between education of farmers and their attitudes towards buffalo management on non-adopted village but the relationship was not significant in adopted village.

Noor (1995) in his study found that education of the farmers had positive significant relationship with their attitude towards HYV of potato.

Habib (2000) observed in his study that education of the BSs had positive significant relationship with their attitude towards agro-chemicals.

Nurzaman (2000) found that education of the FFS and non FFS farmers were positively correlated with their attitude on IPM.

Paul (2000) in his study found that academic qualification of the farmers had positive significant relationship with their attitude towards the use of USG.

Mannan (2001) found that academic qualification of Proshika had a positive relationship with their attitude towards the Ecological Agriculture Programme.

Family size and attitude

Noor (1995) revealed that there was no significant relationship between family size and farmer's attitude towards the cultivation of HYV of potato.

Habib (2000) observed in his study that there was no positive significant relationship relationship between family size of the BSs and their attitude towards the use of agro-chemicals.

Nurzaman (2000) revealed that family size of the FFS and non-FFS farmers had no relationship with their attitude to IPM.

Bari (2000) found that family size of rice growers had no significant relationship with their attitude towards hybrid rice of AALOK 6201.

Paul (2000) observed that there was no relationship between family size and their attitude towards the use of USG.

Mannan (2001) observed in his study there were no significant relationship between family size of Proshika farmers and their attitude towards the Ecological Agricultural Programme.

Farm size and Attitude

Verma and Kumar (1991) found that there was a positive and significant relationship between farm size and attitudes of farmers towards buffalo management in the non-adopted village, which was not significant in case of adopted village.

Habib (2000) observed in his study that farm size of the BSs had no relationship with their attitude towards the use of agro-chemicals.

Nurzaman (2000) revealed in his study that farm size of the FFS and non FFS farmers had no relationship with their attitude on IPM.

Paul (2000) observed in his study that there was positive and significant relationship between farm size and attitude of farmers towards the use of USG on rice cultivation.

Mannan (2001) found that the farm size of Proshika farmers had positive significant relationship with their attitude towards the Ecological Agricultural Programmes.

Annual Family income and Attitude

Kashem (1987) found that income of the small farmers had no significant relationship with their attitude towards community of the farmers. Similar observations were also found by Rahman (1974).

Karim et al (1987) revealed that income of the farmers had significant and positive relationship with their attitude towards the use of urea.

Nurzaman (2000) observed in his study that there was no relationship between family income of the FFS and non FFS farmers with attitude on IPM.

Habib (2000) observed in his study that income of the BSs (Block Supervisor) has significant negative relationship with their attitude towards the use of USG (Urea Super Granule).

Bari (2000) found that there was significant relationship between family income and attitude of farmers towards hybrid rice of AALOK 6201.

Mannan (2001) observed in his study that there was positive significant relationship between family annual income and their attitude towards the Ecological Agricultural Programme.

Credit Availability and Attitude

Rahman (1975) made an investigation on the factors in relation to the adoption of IR-20 among the farmers of Bhabukhali Union of Mymensing district. Availability of credit was one of the ten selected characteristics, which were examined to see if there existed any relationship between this characteristics and the adoption behavior of the farmers. The study revealed that there existed a substantial positive relationship between the credit availability and adoption of IR-20 by the farmers.

Karim *et al.* (1987) indicated that commercialization; income and credit availability of the farmers had significant and positive relationship with their attitude towards the use of urea.

In determining the factors associated with the adoption of three farms namely cocos, poultry and maize; Clark and Akinbodo (1968) conducted a study in Nigeria and found that the most important single factors retarding expansion of the capital or credit. Credit was also the most important determinant of cocoa farm expansion.

Communication exposure and Attitude

Singh and Kunzroo (1985) measured attitude of farmers towards ship and goat farming using Likert-type scale. Their study revealed that there was positive and significant relationship between mass media exposure and attitudes of farmers towards sheep and goat farming.

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, have potential to extent the benefits of extension efforts and to increase impact of extension work. He opined that group approach of women rather than individual approach might help to reduce the social and cultural restriction that impede contact between female farmers and a male extension agent.

Kaur (1988) found that extension contact and mass media exposure had significant influence upon opinion, level of knowledge and adoption of selected programmes of rural women.

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

Ajore (1989) observed in his study that mass media exposure had a significant relationship with their attitude towards the use of chemical fertilizer.

Kaur and Singh's (1991) study revealed that extension contact and mass media exposure influenced the rural women to form favorable attitudes and as a result the rate of adoption of smokeless Chula was increased.

Verma and Kumar (1991) found that there were positive and significant relationship between radio listening and attitudes towards buffalo management in adopted as will as non-adopted village.

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

Parveen (1993) observed in her study that mass contact of the women farmers had significant relationship with their attitude towards homestead agriculture production.

Nurzaman (2000) revealed that extension contact of the FFS farmers was positively significant with their attitude on IPM but in case of non-FFS farmers, there was no significant relationship with attitude on IPM.

Bari (2000) concluded that extension media contact of rice growers had no significant relationship with their attitude towards hybrid rice of AALOK 6201.

Mannan (2001) found that extension media contact of Proshika farmers had a positive significant relationship with their attitude towards the Ecological Agriculture.

Knowledge and attitude

Haque (2002) found that women with more agricultural knowledge have the positive significant attitude towards goat rearing.

The development of conceptual model for variables and their measurement of the study

In scientific research, selection and measurement of variables constitutes an important task. The hypothesis of a research while constructed properly contains at least two important elements i.e. "a dependent variable" and "an independent variable". A dependent variable is that factors which appears, disappears or varies as the researcher introduces, removes or varies the independent variables (Townsend, 1953). An independent variable is the factor, which is manipulated by experimenter to ascertain its relationships to an observed phenomenon. In view of the prime of the study, the researcher constructed a conceptual framework, which is self-explanatory and is presented in Figure 2.2.

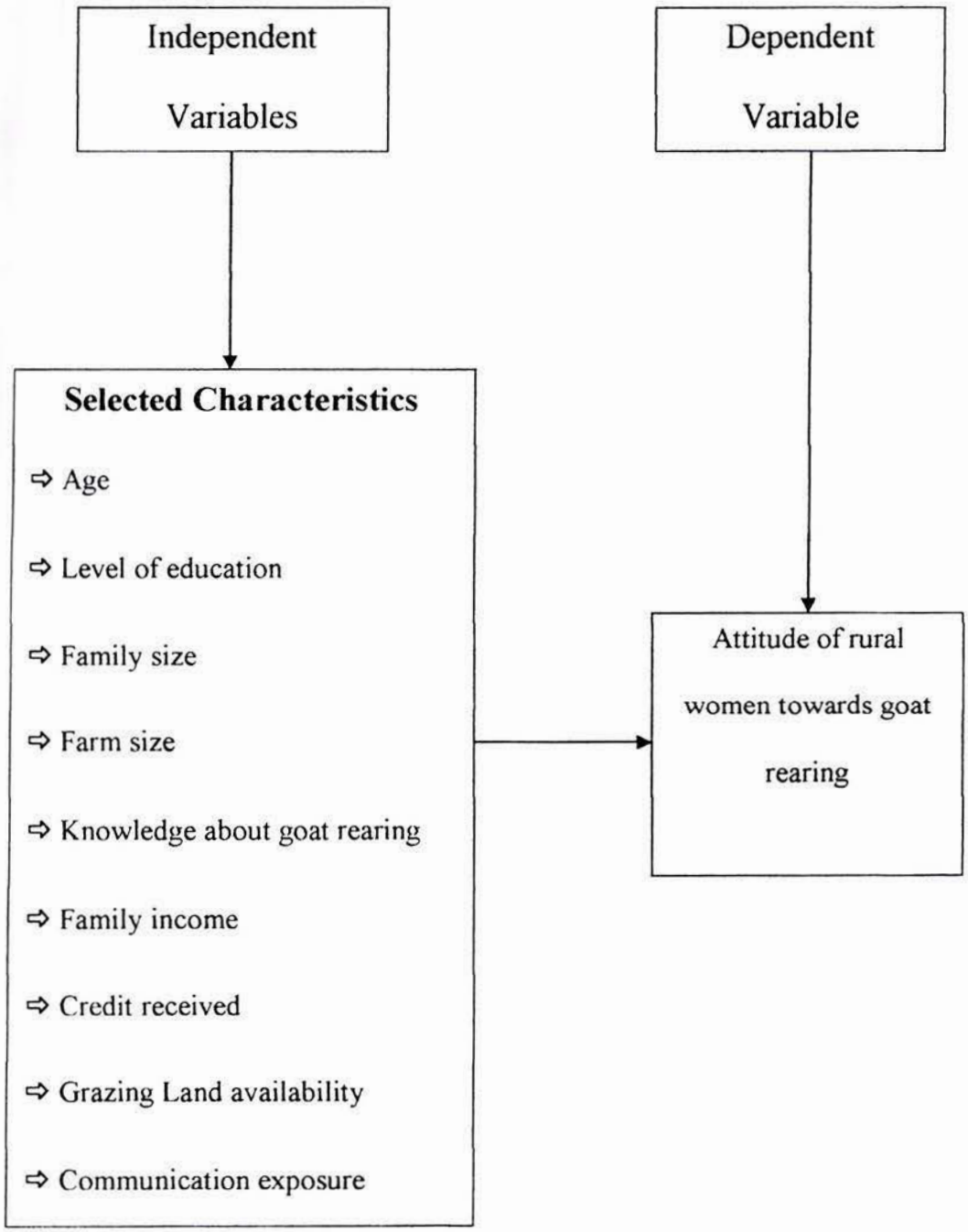

Figure: 2.2 Conceptual framework of the dependent and independent variables of the study

CHAPTER 3

METHODOLOGY

Methodology describes the procedure of conducting a research. It gives clear direction to a researcher about his works and activities during the whole period of the study. So it needs very careful consideration in selecting the steps and arrange them in sequence which enable the researcher to perform research activities successfully and efficiently. Various methods, tools and techniques were used during different stages of research work for and compilation of data. An interview schedule having both closed and open-ended questions were used to collect needed information. Methods and procedures followed in conducting this research are discussed in this chapter.

Locale of the study

Three villages namely jugirgopha, Baniapuqur and Saorabaria of Gangni Upazila under Meherpur district were selected purposefully as locale of the study.

The villages are situated close to the main road of Gangni to Meherpur. The researcher had some interactions with the villagers particularly with women. The researcher himself visited the selected villages to make rapport with village people. The villagers are less educated. Communication exposure is very low, people are conservative and traditional. All the three selected villages are about 10 km far away from upazila head quarter. Road communication is very well. A number of GOs and NGOs were working there for the

development of agricultural sector and for women as well. Thus, the researcher took opportunity to select these villages as the locale of the study. A map of Gangni Upazila showing the locale of the study area has been presented in Figure 2.3

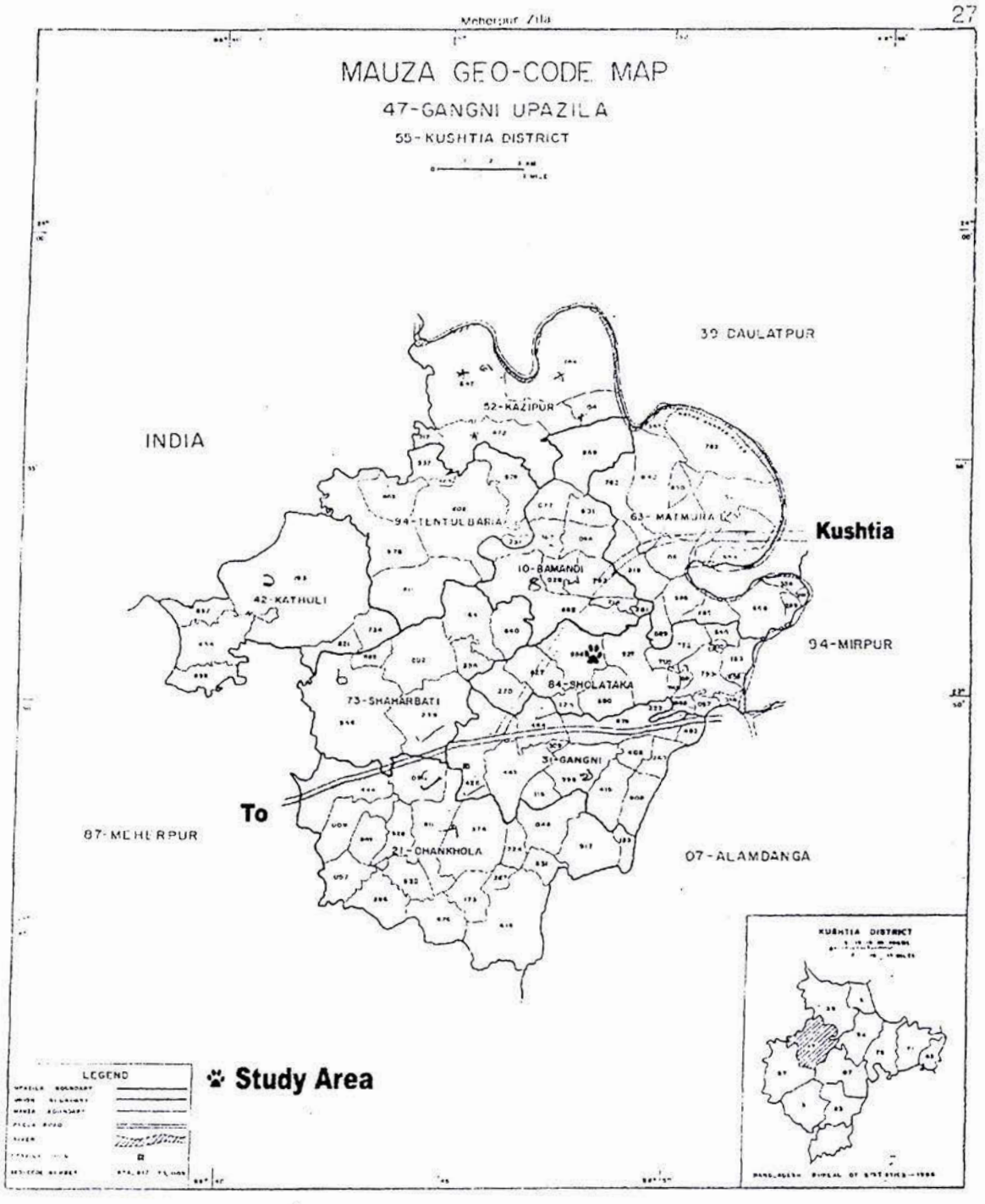

Fig: 2.3 Map of Gungni Upazila Showing Study Area

Population and Sampling of the Study

The female heads of the households of the villages, Jagirgopha, Baniapuqur and Saobaria constituted the population of this study. The households are of all farm size categories including landless labourers.

There are 166, 195 and 275 farm families in Jugirgopha, Baniapuqur and saorabaria, respectively. Thus, a total of 636 farm families constituted the population of the study. It was considered that each family had at least one housewife. Thus, 100 housewives (around 16 percent) among the 636 farm families were selected as sample following proportionate random sampling technique (Table 3.1). To obtain the sample following procedure was followed:

i) The researcher first collected the number of farm families from each village with the help of local leaders and aged persons of respective villages.

ii) One hundred (100) samples (housewives) were selected from the three selected villages i.e., 26 samples from Jugirgopha, 30 samples from Baniapuqur and 44 Samples from saorabaria. Samples were selected by using table of random numbers.

iii) A reserve list of 10 housewives was prepared for use in case of unavailability of the respondent for any reasons.

Table 3.1 Distribution of population and sample of the respondent women of three selected villages of Meherpur district.

Upazila	Village	No. of farm families (population)	No. of women included as sample	No of women in reserve list
Gangni	Jugirgopha	166	26	3
	Baniapuqur	195	30	3
	Saorabaria	275	44	4
Total		**636**	**100**	**10**

Variables of the Study

Variable: Measurable characteristics of population that may vary from element to element either in magnitude or in quality are called variables.

Independent variables

An independent variable is the factor, which is manipulated by experimenter to ascertain its relationships to an observed phenomenon. Nine selected characteristics of the rural women were considered as independent variables of this study. The characteriscts are:

i) Age, ii) Education, iii) goat rearing knowledge, iv) Family size, v) Farm size, vi) Family income, vii) Credit availability, viii) Communication exposure, ix) Grazing land availability.

Dependent variables

A dependent variable is that factors which appears, disappears or varies as the researcher introduces, removes or varies the independent variables (Townsend, 1953). Attitude of rural women towards goat rearing was the dependent variable of this study.

Measurement of variables

In order to conduct the study in accordance with the objectives it was necessary to measure the independent and the dependent variables. The procedures for measuring the variables have been stated below.

Measurement of independent variables

Age

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

Education

Education was measured by the years of schooling. If a respondent did not know how to read and write, her education score was taken as zero (0). Besides, the respondent got actual score of her year of schooling, i.e., I for class one, 2 for class two and so on.

Family size

The total number of individuals in the family of the respondent who live and eat together measured family size.

Farm size

Farm size refers to the area of land owned by a farmer or his wife on which farming activities are carried out. However, farm size was estimated in terms of degree of benefit to the respondent. It was measured in areas (hectare) by using the following formula:

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

Where,

A_1=Own land (including homestead, crop land, garden, pond etc)

A_2 =Given borga to others

A_3 =Taken as borga from others

A_4 = Taken on lease from others

Credit received

Credit received refers to the amount of money received by a respondent women as loan from any organization under its specified terms and conditions. It was expressed in taka. A unit score of 1 was given for each thousand taka.

Family income

The term family income refers to the annual gross income of a respondent herself and the members of her family from agriculture (like crops, livestock, fisheries, poultry, etc), earning from service, from business and other sources during last one year. All the earnings of respondent from agricultural produce were added together to determine her gross annual income and it was measured in Taka by multiplying the quantity of that produce with its prevailing market price per unit quantity. In case of business or service,

multiplied the monthly income by twelve to determine annual income. However, a unit score of I was assigned for one thousand Taka (Tk- 1000/-) of annual income.

Grazing land

Grazing land was measured by computing a "grazing land availability score" on the basis of respondents source of grazing land with each of five selected items namely, own grazing land, pond sides, road sides, river sides and fallow land. For this, the respondents were asked to indicate the extent of goat feeding from each of the five grazing land. The extent of goat feeding from each of five items were weighted to 4-point rating scale of "enough", "moderate", "not erough" and "nill". The score assigned to the above five alternatives were 3, 2, 1 and 0 (Zero) respectively. The scores for all the five items were added together to get the grazing land availability score of a respondent. The grazing land availability scores of the respondents could range from 0 to 15, 0 indicating no availability of grazing land and 15 indicating very high grazing land availability.

Communication exposure

Communication exposure was measured by computing an extension media contact score. In computing this, fourteen extension media contact with the respondents were included in the measurement. These media were neighbors, friends, relatives, ideal farmers, ideal women, goat producer neighbors, NGO workers, UAO, ULO, group meeting, radio agricultural program, TV agricultural program, newspaper and books. For this, five point rating scale always, often, sometimes, rarely and never were developed to determine the communication media contact score. The score assigned to the five alternatives were 4, 3,

2, 1 and 0(zero), respectively. The scores for all the items were added together to get the "communication exposure score" of a respondent. It could range from 0 to 56, where 0 indicating no media exposure and 56 highest media exposure.

Knowledge about goat rearing

Knowledge about goat rearing refers to the ability of a respondent to recall or recognize items of information related to goat production. It was measured by computing a score, called goat rearing knowledge score. Each respondent was asked to answer 16 questions and score was assigned as 5 for very correct answer, 2 for partial correct answer, 1 for tend to be correct answer and 0 for incorrect answer.

Measurement of dependent variable

Attitude towards goat rearing of the respondents were considered as dependent variable. The measurement procedures of dependent variables are described below.

Attitude towards goat rearing

This variable was measured by computing scores of attitude towards goat rearing following a Likert-type scale. Twenty statements-10 positive and 10 negative arranged randomly were asked to the respondents to express their degree of agreement with each of the statements. The respondents were asked to indicate, for each of the statement, whether they 'strongly agree', 'agree', 'no opinion', 'disagree' or 'strongly disagree' with a corresponding score of 4,3,2, 1 and 0 for the positive items and vice versa for the negative items. Hence scores of the respondents for each selected aspects could range

from 0 to 80, where 0 indicates unfavourable attitude and 80 favourable attitudes towards goat rearing by the rural women. On the basis of attitude scores the respondents were classified into three categories as shown in Table 4.2.

Hypothesis

Goode and Hatt *(1952)* defined hypothesis as "a proposition, which can be put to a test to determine its validity." It may seem contrary to or in accord with common sense". A null hypothesis states that there is no relationship between the concerned variables. If null hypothesis is rejected on the basis of statistical test, it is concluded that there is relationship between the concerned variables. In this study, following null hypothesis were formulated to explore the relationships of the selected characteristics of rural women and their attitude towards goat rearing.

"There was no relationships between rural women's "attitude towards goat rearing and their selected characteristics". The selected characteristics were age, education, family size, farm size, family income, credit availability, grazing land availability communication exposure, goat rearing knowledge.

Collection of Data

An interview schedule was developed in Bengali to collect necessary data from the rural women to determine their extent of attitude in goat rearing activities. To describe their selected characteristics and other information to fulfill the objectives of the study, simple and direct questions and also a number of scales were included in the data collecting instrument for gathering data as per objectives. A copy of the English versions of the interview schedule was given in Appendix 2.

It should be mentioned here that a pretest of the draft interview schedule was carried on 10 women of those selected villages. To observe the appropriateness of prepared schedule necessary modifications were made on the basis of responses of the respondent women. Finally, the modified interview schedule was then used for collecting data. The researcher himself collected data from the selected sample through interviewing. He first established rapport with the respondents and explained the objectives of the study. He also discussed the matter with the husbands of the respondent women separately as and when required. Necessary clarifications were also given as and when required. Data were collected during 1st August to 30th August 2005

Data Processing and Analysis

For describing the independent and the dependent variables the respondents were classified into several categories in respect of each of the variable. These categories were developed by considering the nature of distribution of the data and the general conditions prevailing on the social system.

After data collection, those were compiled, tabulated and analyzed statistically in accordance with the objectives of the study. Qualitative data were converted into quantitative data by means of suitable scoring wherever necessary. Descriptive statistics, such as, number, percentage distribution, rank order, mean and standard deviation were used in describing variables of the study. An attempt was also made to display pictorially some of the selected activities of rural women. Correlation analyses were employed for exploring relationship between extent of attitude of rural women in goat rearing and their selected characteristics. Product Moment Correlation Coefficient was used in order to

explore the relationships between the concerned variables. Correlation matrix was computed to determine the intercorrelation among the variables. One (0.01), Five (0.05) and ten percent (0.1) level of significance have been used as the basis for rejecting any null hypothesis.

CHAPTER 4

FINDINGS AND DISCUSSION

This chapter deals with four sections. First section deals with the selected characteristics of rural women. Second section deals with the attitude of rural women towards goat rearing. Third section deals with the identification of problems by the rural women in rearing of goat. Fourth section deals with the relationships between the selected characteristics of the rural women and their attitude towards goat rearing. The salient features of the selected characteristics as well as their attitude towards goat rearing have been presented in table 4.1 and 4.2 respectively.

The selected characteristics of the respondents

Age

The age of the respondents ranged from 18 to 70 years with an average of 39.30 and standard deviation of 12.80. On the basis of their age level the respondents were classified into three categories as shown in table 4.1. The table indicates that about 82% of the respondents were in the age category of middle aged (46%) and young aged (36%). Less then one-fifth (18%) of the respondents were in old aged category. In fact, young and middle aged people adopt or tend to adopt innovation.

Education

Education is a desirable quality of an individual. It helps an individual to strengthen her/his knowledge and form favorable attitude towards agricultural innovation. In this

study the education score ranged from 0 to 12 the average being 2.77 and the standard deviation was 3.75. On the basis of their education score, the respondents were grouped into four categories. The number and percentage distribution of the respondents according to their education are presented in table 4.1. The highest proportion (60 percent) of respondents have no education compared to 17 percent having secondary level of education and 19 percent primary level of education. Only a negligible proportion that is 4 percent was higher secondary level. Data in the table show that 60% of the respondents have no education. Remaining 40% have primary to secondary and above secondary level of education. This is far below of national average, because data were collected from the respondents who were age group of 18 and above. This indicates that goat rearing was mostly confined among the respondents having no schooling or level of education.

Goat rearing knowledge

The computed goat rearing knowledge scores ranged from 25-68, against the possible range of 0 to 80, the average being 44.5 and the standard deviation was 8.11. Based on these scores, the respondents were classified into three categories as shown in table 4.1. The highest proportion (48 percent) of the rural women in goat rearing had medium knowledge compared to 35 percent having low knowledge and 22 percent high knowledge (table 4.1). Thus, about 83 percent of the respondents had low to medium goat rearing knowledge. It could be concluded that for the success of poverty alleviation through goat rearing project there is no way but to increase goat rearing knowledge of the client system.

4.1. Salient features of the selected characteristics of the rural women

Selected characteristics	Scoring method	Probable range	Observed range	Categories	Rural women No./%	Mean	SD
Age	No. of years	-	18-70	Young (Below-31)	36	39.3	12.8
				Middle aged (31-50)	46		
				Above (50)	18		
Education	year of schooling	-	0-12	No schooling (0)	60	2.77	3.75
				Primary level (1-5)	19		
				Secondary (6-10)	17		
				Higher sec. ≥11	4		
Family size	Number of members	-	1-10	Small (up to4)	54	4.59	1.65
				Medium (5-6)	35		
				Large (> 6)	11		
Farm Size	Area in hectare	-	0-2.85	Landless (below 0.02 ha)	3	0.51	0.48
				Marginal (0.02 to 0.2 ha)	38		
				Small (0.21 to 1.0 ha)	46		
				Medium (1.1 to 3.0 ha)	13		
Family income	Rated score	-	5-259	Low (up to 50)	53	65.38	47.58
				Medium (51-100)	29		
				High (>100)	18		
Credit received due to goat rearing	Rated score	-	0-12	Received no credit (0)	61	1.63	2.39
				Low (1-5)	36		
				Medium (>5)	3		
Grazing land availability	Seale of score	0-15	4-11	Low availability (≤ 6)	30	7.19	1.40
				Medium availability (7-11)	70		
				High availability (> 11)	0		
Communication Exposure	Seale of Score	0-56	12-24	Low (up to 15)	32	16.99	2.72
				Medium (16-20)	56		
				High (>20)	12		
Knowledge about goat rearing	Seale of score	0-80	25-68	Low (up to 40)	35	44.5	8.11
				Medium (41-50)	43		
				High (>50)	22		

Family size

The family size of the respondent rural women ranged from 1 to 10 with an average and standard deviation of 4.59 and 1.65 respectively. Based on family size, the respondents were grouped into three categories as shown in table 4.1

The highest proportion (54 percent) of the respondents fell under the small family size category compared to 35 percent falling under medium and 11 percent large family categories. Thus, the majority (89 percent) of the respondent's family were small to medium. The average family size of the study area is almost similar to that of national average.

Farm size

The farm size of the respondents ranged from 0 to 2.85 hectare. The average was 0.51 and standard deviation 0.48. Based on their farm size, the respondents were classified into four categories as shown in table 4. 1. The table indicates that 46 percent of the respondent had small sized farm compared to 38 percent marginal farm and 13 percent having medium and 3 percent landless farm. Hence, more than four-fifth (about 84 percent) of the respondents had marginal to small farm size.

Family income

Annual family income score of the respondent ranged from 5 to 259 (where, 1000 Tk means 1) with the mean of 65.35 and standard deviation 47.58. On the basis of their family income scores the respondent rural women were classified into there categories as

shown in table 4.1. The table shows that the highest proportion (53 percent) of the rural women had low annual family income, while 18 percent had high annual family income, 29 percent medium annual income. As a result, the majority (82 percent) of rural women family in the study area having medium to low annual family income.

Credit availability for goat rearing

The credit availability scores of the respondent rural women in goat rearing ranged from 0 to 12. The mean is 1.63 and the standard deviation is 2.39. On the basis of their credit availability scores the respondent of rural women were grouped into three categories as shown in table 4.1. The highest proportion (61 percent) of the respondents of rural women received no credit due to lack of collaterals or repayment risk due to unfavorable terms and conditions. Only 3 percent of the respondents were medium credit receiver followed by 36 percent low credit receiver. The findings indicate that a large number of respondent women of the community were either not interested to take credit or it was not available to them as mentioned earlier. The data also alarm the project authority of poverty alleviation through goat rearing. So, government must should take necessary step to make easy terms and conditions for loan disbursement and repayment.

Grazing land availability of rural women.

Grazing land availability of the respondent rural women ranged from 4-11 against the possible range from 0 to 15 with a mean 7.19 and standard deviation 1.4. The respondents were classified into three categories on the basis of their grazing land availability scores as shown in data presented in table 4.1. Data in the table show that about three fourth (70

percent) of the women had medium grazing land in goat rearing, while 30 percent belonged to low grazing land and none of them got high grazing land for goat. The situation reflects the national statistics. In Bangladesh grazing land is one of the major problem in goat rearing.

Communication exposure

The communication exposure scores of the respondents ranged from 12 to 24 against the possible range from 0 to 56. The average communication exposure score was 16.99 with standard deviation of 2.72. On the basis of communication exposure scores, the respondents were classified into three categories as shown in table 4.1. The table indicates that the highest proportion (56 percent) of the respondents had medium communication exposure compared to 12 percent high and 32 percent having low communication exposure. This leads to the understanding that the major part (98 percent) of the respondents fell in low and medium categories. The extension personnel of Directorate of live stock services should contact frequently with the goat rearing women.

Attitude of rural women towards goat rearing

Attitude is conceptualized as a predisposition to act in a certain way, i.e. it is of a readiness that influences a person to act in a given manner (Barnard, 1965). According to Allport (1935) an attitude is a mental and neural state of rediness, organized through experience, exerting experience or dynamic influence upon the individual response to all objects and situation with which it is related.

There were twenty statements selected to measure the extent of attitude in goat rearing. The attitude towards goat rearing score could range from 0-80. However, the score obtained for attitude in goat rearing ranged from 29 to 49 with an average of 34.94 and a standard deviation of 2.95. Respondents were classified into three categories on the basis of their attitude score in goat rearing as given in table 4.2. Data contained in table 4.2 revealed that highest proportion (65 percent) of the respondents had moderate attitude in goat rearing compared to 6 percent less favorable and 29 percent favorable attitude. Data indicates that every women had favorable attitude towards goat rearing as nobody obtained zero (0) score. Attitude categories are also shown graphically in fig.4.1

Table 4.2. Attitude of rural women towards goat rearing

Variable	Measurement technique	Possible range	Observed range	Categories	Rural women (Number or Percent)	Mean	SD
Attitude towards goat rearing	Likert type scale	0-80	29-49	Less favorable (up to 30)	6	34.94	2.95
				Moderate favorable (31-36)	65		
				Favorable (> 36)	29		

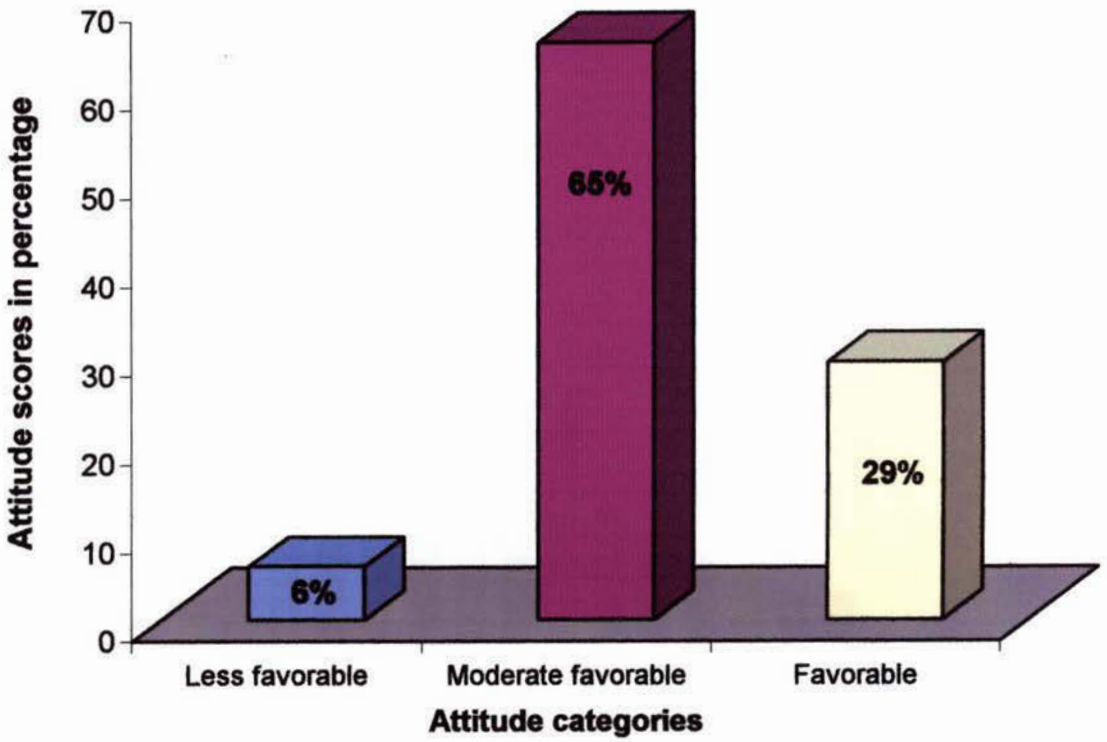

Fig. 3.1 Attitude level of rural women in goat rearing in the study area

Comparative attitude of rural women on related statements for goat rearing

Percentage distribution of rural women in each of the twenty selected statements related to goat rearing has been shown in table 4.3 along with attitude indicates and rank order. Computed attitude score indicates against twenty items ranged from 36 to 306 with an average of 181.65. Data furnished in table 4.3 revealed that attitude of rural women in the item "Goat rearing can generates more income in a short period of time" was the highest (A1= 306) and ranked 1st position and lowest attitude was observed in "In the rainy season goat rearing is very difficult because goats are attacked by various diseases". (AI=36). Further the table indicates that rural women are not aware of scientific management of rearing goat and there also exists poor veterinary services. So, veterinary services regarding all the homestead activities should be strengthened to increase

production and farm income as well. Extent of attitude of rural women in each of the twenty selected items related to goat rearing is also shown graphically in fig 3.2

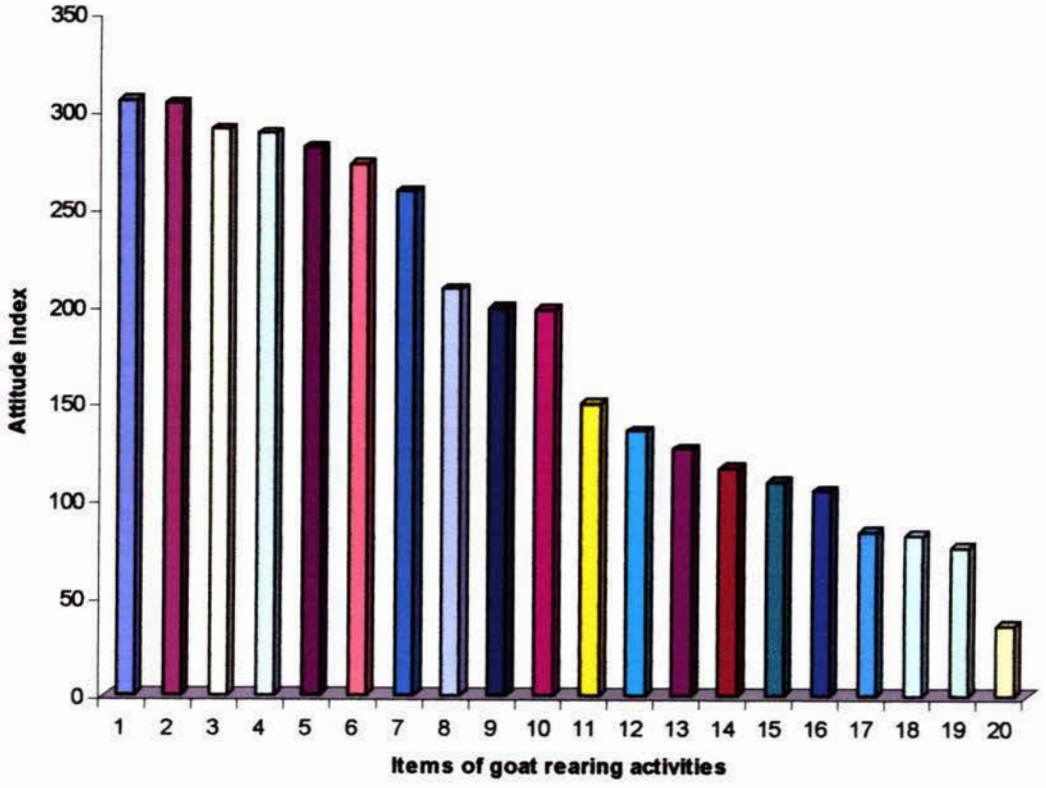

Fig. 3.2 Attitude of rural women against 20 items of goat rearing activities

Legend:

1 = Goat rearing can generate more income in a short period of time
2 = Can easily take care of goat
3 = A goat can give birth to 3-4 kids at a time
4 = Helps to earn more income compared to crop production
5 = Goats milk is nutritious
6 = Goats live in a group
7 = Supplementary food requirement is not necessary
8 = Goat rearing is environment friendly
9 = Rural women can meet up their money problem by selling goats
10 = Comparatively goats are resistant to diseases
11 = Goat rearing is very laborious
12 = Credits are not available
13 = Fox and other wild animals are threat for goat rearing
14 = Good quality goats are not available
15 = Supplies less amount of milk
16 = Have lack of knowledge to supervise goats properly
17 = Rural women' husbands grasp the benefits
18 = Creates unfriendly relation with neighbors
19 = Have less idea of goat treatment
20 = In the rainy season goat rearing is very difficult because goats are attacked by various diseases

Table 4.3. Comparative attitude of rural women in twenty statements of goat rearing with attitude index (AI) and rank order.

	Statements	Nature of the altitude					Attitude index	Rank order
		Strongly age	Agree	No opinion	Disagree	Strongly disagree		
	Goat rearing can generates more income in a short period of time.	32	273	0	1	0	306	1
	Rural women can easily take care of goats.	16	288	0	0	0	304	2
	A goat can gives birth to 3-4 kids at a time which economically profitable	16	255	18	2	0	291	3
	Goat rearing helps to earn more income as compared to crop production	12	249	28	0	0	289	4
	Goat's milk is nutritious	12	228	42	0	0	282	5
	Goals live in a group and it is possible to accumulate a large number of goats in a small place.	0	237	30	6	0	273	6
	Supplementary food requirement is not necessary	4	171	4	80	0	259	7
	Goat rearing is environment friendly	4	108	68	29	0	209	8
	Rural women can meet up their money problem by selling goats in time of need	0	147	2	50	0	199	9
	Comparatively goats are resistant to diseases.	4	135	10	49	0	198	10
	Goat rearing is very laborious.	0	74	4	72	0	150	11
	Credits are not available for goat rearing	0	75	10	51	0	136	12
	Fox and other wild animals are threat for goat rearing	0	83	2	42	0	127	13
	Good quality goats are not always available	0	88	8	21	0	117	14
	Goat supplies less amount of milk	0	89	12	9	0	110	15
	Rural women have lack of knowledge to supervise goats properly.	0	92	4	9	0	105	16
	Rural women only rear goat but their husbands grasp the benefits	0	74	4	6	0	84	17
	Goat rearing creates unfriendly relation with neighbors by eating their vegetables and crops	0	77	2	3	0	82	18
	Rural women have less idea of goat treatment	0	71	2	3	0	76	19
	In the rainy season goat rearing is very difficult because goats are attacked by various diseases.	0	36	0	0	0	36	20

Table 4.3. Comparative attitude of rural women in twenty statements of goat rearing with attitude index (AI) and rank order.

Statements	Nature of the altitude					Attitude index	Rank order
	Strongly age	Agree	No opinion	Disagree	Strongly disagree		
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Rural women can easily take care of goats.	16	288	0	0	0	304	2
A goat can gives birth to 3-4 kids at a time which economically profitable	16	255	18	2	0	291	3
Goat rearing helps to earn more income as compared to crop production	12	249	28	0	0	289	4
Goat's milk is nutritious	12	228	42	0	0	282	5
Goals live in a group and it is possible to accumulate a large number of goats in a small place.	0	237	30	6	0	273	6
Supplementary food requirement is not necessary	4	171	4	80	0	259	7
Goat rearing is environment friendly	4	108	68	29	0	209	8
Rural women can meet up their money problem by selling goats in time of need	0	147	2	50	0	199	9
Comparatively goats are resistant to diseases.	4	135	10	49	0	198	10
Goat rearing is very laborious.	0	74	4	72	0	150	11
Credits are not available for goat rearing	0	75	10	51	0	136	12
Fox and other wild animals are threat for goat rearing	0	83	2	42	0	127	13
Good quality goats are not always available	0	88	8	21	0	117	14
Goat supplies less amount of milk	0	89	12	9	0	110	15
Rural women have lack of knowledge to supervise goats properly.	0	92	4	9	0	105	16
Rural women only rear goat but their husbands grasp the benefits	0	74	4	6	0	84	17
Goat rearing creates unfriendly relation with neighbors by eating their vegetables and crops	0	77	2	3	0	82	18
Rural women have less idea of goat treatment	0	71	2	3	0	76	19
In the rainy season goat rearing is very difficult because goats are attacked by various diseases.	0	36	0	0	0	36	20

Problems Faced by the Rural Women in Goat Rearing Activities.

It is obvious that we face a number of problems in performing any production activity. In case of agricultural production activities, the types of problem are diversified. In order to investigate the problems faced by the rural women in goat rearing open-ended questionnaire was used. They were asked to mention their problems regarding goat rearing. At the same time they were also asked to indicate the extent of their problems. However, rural women of the study area mentioned 9 problems, which are given in table 4.4 with rank in descending order of importance. Goat died due to plague disease was the most severe problem with problem index of 265. Goat rearing at homestead in rainy season was the second problem with problem index of 250. Altercation with neighbors due to damage of vegetable (by goats) was the third problem with problem index 240.

Lack of doctor for treatment of goat came next in rank (rank 4, PI 239). This is because, there is a shortage of veterinary doctor in our country and doctors do not stay at rural areas for lack of amenity. So, Directorate of livestock services should take initiative to increase amenities in the rural area so that veterinary doctors can serve rural people.

Lack of available grazing land came next in rank (rank 5 PI 221). Nowadays grass field has been narrowed down. On the other hand, fodder cultivation was not found in the study area. Due to unavailability of goat feed, rural women faced low productivity from their goat rearing. So, it was difficult to avoid the problem by the rural women with regard to goat rearing. The ranking of other problems relating to goat rearing are shown in the table 4.4.

Table 4.4. Problems faced by rural women in goat rearing.

Statement	Height	Medium	Low	Total	Rank
Goat die due to plague disease	210	50	5	265	1
Rearing goat in rainy season is tough	195	60	5	250	2
Altercation with neighbors due to damage of crops.	150	80	10	240	3
Lack of veterinary doctors for treatment of goat	180	38	21	239	4
Lack of grazing land	90	122	9	221	5
Lack of quality goat variety	105	100	15	220	6
Restriction of grazing along road side due to tree plantation	45	160	5	210	7
Lack of credit availability	90	86	17	193	8
Lack of goat that gives much milk	30	135	20	185	9

It is a fact that actual rural poor people do not get credit from bank or other government financial institutions. So, they are bound to take credit from rural money lender on high interest and become poorer. The government should have strictly stopped this corruption and to distribute credit among the real poor for successful goat rearing project.

Relationship Between the Characteristics of Rural Women and Their Attitude Towards Goat Rearing

Relationship of nine independent variables with attitude of rural women in goat rearing has been presented in this section. The procedure followed for measuring dependent and independent variables have been already discussed in chapter 3. Pearson's correlation coefficient 'r' was used to determine the relationship between the selected independent and dependent variables and to accept or reject the null hypothesis. A summary of the correlation coefficient analysis is presented in table 4.5 and the correlation matrix is enclosed in the Appendix 3.

Relationship between age of the rural women and their attitude towards goat rearing

The correlation coefficient between age of the rural women and their attitude in goat rearing was -.153 as shown in Table 4.5. Based on the observed 'r' value, following inferences are made regarding relationship between independent and dependent variables. The relationship between age and attitude in goat rearing was insignificant as the computed value of 'r' (-0.153) was less than the table value of `r' at 0.05 level of probability (±0.196) and followed a negative trend. Hence the null hypothesis was accepted i.e. there was no relationship between age and attitude in goat rearing. Similar findings were found in other research works such as Verma and Kumar (1991) conducted a study on comparison of farmer's attitude towards buffalo management practice in

adopted and non-adopted village They found no significant relationship between age and attitude of the farmers of non-adopted village.

Relationship between education of the rural women and their attitudes toward goat rearing

The co-relation co-efficient between education of the rural women and their attitude in goat rearing was 0.302 as shown in table 4.5. Based on the observed 'r' value, following inferences are made regarding relationship between independent and dependent variables.

Table 4.5. Observed co-relation coefficient 'r' between independent and dependent variables of the study

Dependent variable	Independent variables	Computed 'r' values
Attitude towards goat rearing	Age	-.153
	Education	.302(***)
	Family size	-.172(*)
	Farm size	.056
	Family income	.015
	Credit availability	-.076
	Grazing land availability	-.075
	Communication exposure	.187(*)
	Knowledge about goat rearing	.261(***)

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

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

* Correlation is significant at the 0.1 level (2-tailed).

The relationship between education and attitude in goat rearing was significant as the computed value of 'r' (0302) was higher than the table value of 'r' at 0.01 level of probability (±0.254) and followed a positive trend. Hence the null hypothesis was rejected i.e. there was positive relationship between education and attitude in goat

rearing. That is the educated women are interested in goat rearing than the illiterate women. It may be concluded from the above finding that education had an influence on favourable attitude towards goat rearing.

Present finding was supported by Singh and Kunzroo's (1985) who observed that there was positive and significant relationship between education of farmers and their attitude towards sheep and goats farming.

Relationship between family size of the rural women and their attitude towards goat rearing

The correlation co-efficient between family size of the rural women and their attitude in goat rearing was –0.172 as shown in table 4.5. Based on the observed 'r' value, following inferences are made regarding relationship between independent and dependent variables. The relationship between family size and attitude in goat rearing was insignificant as the computed value of 'r' (-0.172) was less than the table value of 'r' at 0.05 level of probability (±0.196) but it was significant at 0.10 level of probability and followed a positive trend. Hence the null hypothesis was rejected i.e. there was relationship between family size and attitude in goat rearing. The relation was negatively co-related i.e. higher the family sizes lower the attitude.

Relationship between farm size of the rural women and their attitude towards goat rearing

The correlation co-efficient between farm size of rural women and their attitude towards goat rearing was 0.056 as shown in table 4.5. Based on the observed 'r' value, following

inferences are made regarding relationship between independent and dependent variables. The relationship between farm size and attitude in goat rearing was insignificant as the computed value of 'r' (0.056) was less than the table value of 'r' at 0.05 level of probability (±0.196) and followed a negative trend. Hence the null hypothesis was accepted i.e. there was no relationship between farm size and attitude in goat rearing. This finding was supported by other researches. Nurzaman (2000) revealed in his study that farm size of the FFS and non-FFS farmers had no relationship with their attitude on IPM. Habib (2000) also found that farm size of the BSs had no significant relationship with their attitude towards the use of agrochemicals.

Relationship between family income of the rural women and their attitude towards goat rearing

The correlation co-efficient between family income of the rural women and their attitude towards goat rearing was 0.015 as shown in table 4.5. Based on the observed 'r' value, following inferences are made regarding relationship between independent and dependent variables.

The relationship between family income and attitude in goat rearing was insignificant as the computed value of 'r' (0.015) was less than the table value of 'r' at 0.05 level of probability (±0.196) and followed a negative trend. Hence the null hypothesis was accepted i.e. there was negative relationship between family income and attitude in goat rearing. This finding was supported by other researches. Kashem (1987) found that income of the small farmers had no significant

relationship with their attitude towards community of the farmers. Similar observations were also found by Rahman (1974).

Relationship between credit availability of the rural women and their attitude towards goat rearing

The correlation co-efficient between credit availability of the rural women and their attitude towards goat rearing was -0.076 as shown in table 4.5. Based on the observed 'r' value, following inferences are made regarding relationship between independent and dependent variables.

The relationship between credit availability and attitude in goat rearing was insignificant as the computed value of 'r' (-0.076) was less than the table value of 'r' at 0.05 level of probability (±0.196) and followed a negative trend. Hence the null hypothesis was accepted i.e. there was negative relationship between credit availability and attitude in goat rearing. The findings indicate that a large number of respondent women of the community were neither interested to take credit nor it was available to them as mentioned earlier.

Relationship between knowledge of the rural women about goat rearing and their attitude towards goat rearing

Relationship between knowledge of the rural women about goat rearing and their attitude toward goat rearing was determined by testing the following null hypothesis: "There is no relationship between knowledge of the rural women about goat rearing and their attitude in goat rearing".

The calculated value of the co-efficient of correlation (r) between knowledge of the rural

women about goat rearing and their attitude in goat rearing was 0.261 as shown in table 4.5. The computed value of 'r' (0.261) was higher then the table value (±0.254) at 0.01 level of probability. Hence, the relationship was statistically highly significant and the hypothesis was rejected. That is, there was positive relationship between goat rearing knowledge of the rural women and their attitude towards goat rearing. This finding was supported by other researches. Haque (2002) found that women with more agricultural knowledge have the positive significant attitude towards goat rearing.

Relationship between communication exposure of the rural women and their attitude towards goat rearing

Relationship between communication exposure of the rural women and their attitude in goat rearing was determined by testing the following null hypothesis: "There is no relationship between communication exposure of the rural women and their attitude toward goat rearing".

The calculated value of the co-efficient of correlation (r) between communication exposure of the rural women and their attitude toward goat rearing was 0.187 as shown in table 4.5. The computed value of 'r' (0.187) was less then the table value (±0.196) at 0.05 level of probability but higher then the tabulated value at 0.10 level of probability. Hence, the relationship was statistically significant and the hypothesis could be rejected.

The above findings reveal that communication exposure had immense influence on attitude of rural women with goat rearing. It is obvious that exposure with extension agents and other teaching methods changes attitude of clients radically and they become interested to adopt new technology which has been reflected here

to some extent. This finding was supported by other researches. Parveen (1993) observed in her study that mass contact of the women farmers had significant relationship with their attitude towards homestead agriculture production.

Relationship between grazing land availability of the rural women and their attitude towards goat rearing

Relationship between grazing land availability of the rural women and their attitude in goat rearing was determined by testing the following null hypothesis: "There is no relationship between grazing land availability of the rural women and their attitude in goat rearing".

The calculated value of the co-efficient of correlation (r) between grazing land availability of the rural women and their attitude in goat rearing was –0.075 as shown in table 4.5. The computed value of 'r' (-0.075) was less than the table value (±0.196) at 0.05 level of probability. Hence, the relationship was not statistically significant and the hypothesis could not be rejected.

Based on the above findings the researcher concluded that there is no significant relationship between grazing land availability of the rural women with their attitude of goat rearing.

CHAPTER 5
CONCLUSION AND RECOMMANDATIONS

Summary of findings

Selected characteristics of the rural women

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

About half (46 percent) of the rural women were middle aged. The remaining 36 and 18 percent were young and old aged category respectively. Above half (60 percent) of the respondents had no education, while 19,17 and 4 percent had primary, secondary and higher secondary level of education respectively. More then half (54 percent) of the rural women had small family size, while 35 percent of the rural women had medium family size and 11 percent had large families. The highest proportion (46 percent) of the rural women had small farm size categories, 38 percent of the rural women had marginal farm size, 13 percent were medium and only 3 percent of the rural women were landless. The majority (53 percent) of the respondents belonged to low income. Rest of 29 and 18 percent were medium and high income respectively. The major proportion (61percent) of the respondents had not received any credit and only 3 percent had received medium credit and 36 percent received low credit. The majority (70 percent) of the respondents had medium grazing land availability and 30 percent of the respondents had low availability. There was no respondents who had high availability of grazing land in the study area. The largest proportion (56 percent) of the respondents had medium

communication exposure and 32 and 12 percent were low and high communication exposure respectively. About half (48 percent) of the rural women belonged to medium knowledge, 35 percent of the respondents had low knowledge and 22 percent had high knowledge about goat rearing.

Attitude of rural women towards goat rearing

Attitude of rural women in goat rearing was the main focus of this study. The computed attitude score of the respondents ranged from 29 to 49 with an average of 34.94 and standard deviation of 2.95. Two-third (65 percent) of rural women had medium attitude, about one-third (29 percent) of the rural women had favorable attitude and only 6 percent had less favorable attitude in goat rearing. Attitude index of the rural women on twenty items ranged from 36 to 306 against a possible range of 0 to 400. The attitude of goat rearing can generates more income in a short period of time was the top in rank order. On the other hand, in the rainy season goat rearing is very difficult because goats are attacked by various diseases ranked 20^{th} in order.

Relationship between concerned variables and dependent variable

Correlation analysis indicated that out of nine hypotheses tested, four were rejected. Family size of the rural women was significant and negatively correlated with their attitude in goat rearing while education, communication and knowledge about goat rearing of the rural women were significant and positively correlated with their attitude in goat rearing.

Conclusion

On the basis of findings of the study, the logical interpretation of their meaning and other relevant facts enabled the researcher to draw the following conclusion:

1. In present study, overall attitude of rural women in goat rearing was moderate favorable to favorable. In fact problem shows the path to development. The concerned authority should handle the goat rearing problems efficiently and effectively. Where there is a problem there is a solution. The livestock service should come forward to educate rural women about how to solve these problems. Emphasis should be given to the control of plague disease and on the establishment of community pasture field. Goat rearing is mostly performed by women in our country and has rightly reflected in the present study. Of course extent of attitude in different items depends on nature of the activities, availability of inputs, technical knowledge and also due to other characteristics of rural women. So, there is a need for strengthening extension activities by GOs and NGOs to ensure a continuous flow of information and technical knowledge to the rural women for enhancing their skills and knowledge to the respective areas.
2. Rural women of the study area mentioned nine problems. These problems created obstacles in implementing the goat-rearing project. Therefore, it may be concluded that goat-rearing activities of the rural women will be continuously disturbed, if the above problems are not handled in an appropriate way.

3. Most of the rural women were middle aged, while age of the rural women had no significant relationship with their attitude in goat rearing. Therefore, it may be concluded that attention should be given on all age group. But as larger populations of the rural women are middle-aged, hence it is necessary to give some importance to this group.
4. Education, communication exposure and knowledge about goat rearing have significantly positive relationship with attitude of rural women in goat rearing. It implies that, these characteristics of the rural women have profound influence on their attitude in goat rearing. So, GOs and NGOs should take initiatives to increase knowledge about goat rearing, education (training facilities) and to encourage the rural women in participating various extension media.

Recommendations

On the basis of findings and conclusion of the study, recommendations are made as follows:

Recommendations for policy implication

In view of the importance of the goat rearing for supporting the households economically, the attitude of the rural women towards goat rearing should be made more favorable. In order to improve the conditions of women through rearing goat the following suggestions are made based on findings of the study.

1. Level of education of the rural women showed significant positive relationship with their attitude in goat rearing activities. So, proper extension approach to educate the women for increasing goat rearing should be developed. An effective

and integrated extension approach should be evolved for the women of the society. This needs more action research to be conducted by the relevant agencies.

2. Small and marginal farm families had increased in goat rearing activities in view of the above facts it may be recommended that extension and other development agencies need to take attempt for small and marginal farmers to be involved more in goat rearing activities to support family expenses.
3. Knowledge had played a vital role in forming favorable attitude towards the goat rearing. The knowledge about goat rearing activities should be offered through training. Training facilities should be made available for the women regarding for better management of goat rearing.
4. Young women are generally less experienced about the various aspects of the goat rearing. This fact leads to recommend that extension workers need to give special attention to the rural women of younger age to make them aware of the benefits of the goat rearing.
5. Communication exposure is very important for receiving information from different source. But the maximum respondent in the study area had low and medium extension contact. Therefore, it is recommended that steps should be taken to encourage the rural women for using different communication media.
6. As cited by the rural women, there were nine problems creating disturbances in goat rearing activities. It is, therefore, recommended that the Department of Livestock Service and extension agencies should give attention to solve the problems as far as possible.

Recommendations for further study

A small piece of study as has been conducted cannot provide all information for the proper understanding of the women's attitude towards goat rearing at macro level. This is similar in case of problem faced in goat rearing activities. Therefore, the following suggestions are made for further study:

1. The present study was carried out in a small area of Meherpur district. Similar studies may be conducted in other parts of the country to get a clear picture of the whole country which will be helped for effective policy formation.

1. Relationship of nine characteristics of the rural women with their attitude in goat rearing have been investigated in this study. Further research should be conducted to explore the relationship of other characteristics of rural women with their attitude in goat rearing.

2. There are a few studies conducted so far particularly to assess the extent of attitude of rural women in goat rearing activities. Further studies should be designed considering homestead agriculture and non-agriculture activities including other characteristics of rural women that might affect their attitude.

3. This study on the attitude of the rural women towards goat rearing was conducted only

   one union of Meherpur district. Findings of the study should be verified by similar research in other parts of Bangladesh.

4. In the present study, only attitude in goat rearing activities was studied but production

potential of this subject was not considered. There might be a relationship between productivity with the extent of attitude that should be considered in future studies.

5. To measure the attitude towards goat rearing, the researcher developed a scale and the validity of the scale may be verified by further studies using the same scale.

6. The researcher had studied on the attitude of rural women towards goat rearing. The attitude of their male partners and the change agents towards goat rearing may also be determined by other studies.

7. The present study measured the extent of attitude formation towards goat rearing. Further, study may measure the change of attitudes over time after implementations of the program.

8. There are so many problems in goat rearing among the rural women. More research should be conducted to find out the problems and suggested solutions of the problems from different stakeholders.

BIBLEOGRAPHY

Ajore, R. 1989. Attitude of Farmers towards Chemical Fertilizer. Indian Journal of Extension Education. 25 (1 and 2): 112-114.

Allport, G.W.1935. Attitudes appeared in C.M. Murchion (ed.), Handbook of social Psycology. Clark University Press, Woreester, Mass., U.S.A. 810. Adopted from Wahab, A.M.F.1975. Attitude of Farmers Towards the Use of Fertilizer. M. Sc. (Ag. Ext. Ed.) Thesis, Bangladesh Agriculture University, Mymensingh.

Bari, M.A. 2000. Attitude of Fermers towards Hybrid Rice AALOK 6201. M.S. (Ag. Ext.Ed) Thesis, Department of Agricultural Extension Education, Bangladesh Agriculture University, Mymensingh.

BBS. 2002. Statistical Year Book of Bangladesh. Bangladesh Bureau of Statistics, Statistics Division, Ministry of planning, Government of the People's Republic of Bangladesh, Dhaka.

BBS. 2005. Statistical Year Book of Bangladesh. Bangladesh Bureau of Statistics, Statistics Division, Ministry of planning, Government of the People's Republic of Bangladesh, Dhaka.

Clark, R.C. and I.A. Akinbode, 1968. Factors Associated with the Adoption of Three Farm Practices in the Western State of Nigeria, Faculty of Agricultural University of Ife, Nigeria, April 1968, reproduced in Journal of Cooperative Extension. Vol. 7, summer 1969, No. 2, 116.

Gura, S. 1986. Extension Approaches to Reach Rural Women In: 1985. Training for Agriculture and Rural Development. FAO Economic and Social Development Series No. 38. 1-9. Rome, Italy.

Habib, M. 2000. Attitude of Block Supervisors Towards the use of Agro-chemicals. M.S.(Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agriculture University, Mymensingh.

Haque, M.Z. 2002. Attitude of rural women towards homestead agriculture in selected area of panchagarh district. R.S.(Ag.Ext.Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

Islam, M.M. and Kashem, M.A. 1997. Attitude of Farmers towards the use of Agrochemicals. Bangladesh Journal of Training and Development. 10 (1 and 2): 23-28.

Karim, A.S. M., Hossain, H.A. and Shamsuzzoha, A. N. M. 1987. Farmers Economic Characteristics Affecting Their Attitude towards the use of Urea in Jute Cultivation. Bangladesh Journal of Extension Education, 2(2): 69-74.

Kashem, M.A. 1987. Small Farmers Constraints to the Adoption of Modern Rice Technology. The Bangladesh Development of Studies, 15 (40): 18-30.

Kaur, M. R. 1988. An Evaluative Study of Women Development Programme Under Indo-German Dhauladhar Project Palampur, District Kumgra, H.P. Thesis Abstract, XVI (4) 258.

Kumari, N. 1988. An Experimental Study on Communication Effectiveness of Selected Mix Media for Health Education. Thesis Abstract. Haryana Agricultural University. Hissar, India.

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

Mannan, M. A. 2001. Attitude of Proshika Farmers towards the Ecological Agricultural Programme. M.S. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agriculture University, Mymensingh.

Noor, M.S. 1995. Farmers Attitude towards the cultivation of High Yielding Varieties of Potato. M.S. (Ag. Ext. Ed.). Thesis, Department of Agricultural Extension Education, IPSA, Gazipur.

Nurzaman, M. 2000. Knowledge, Attitude and Practice of FFS and Non- FFS Farmers in Respect of IPM. M.S. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

Paul, S.K. 2000. Attitude of Farmers Towards the use of Urea Super Granule on rice cultivation. M. S.(Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agriculture University, Mymensingh.

Parveen, S. 1993. Attitude of the Rural Women Towards Homestead Agricultural Production. M. Sc.(Ag. Ext. Ed.) Thesis, Department of Bangladesh Agricultural University, Mymensingh.

Rogers, E.M. and F. Floyd Shoemaker, 1971. Communication of Innovation: A Cross Cultural approach. New York: Free Press.

Rosenberg, M. and C.I. Hovland. 1960. Research on Communication and Attitude Quated in Triandis, H.C. 1971. Attitude and Attitude Change. John Wiley Publisher, New York.

Singh, B. and O.N. Kunzroo. 1985. Attitude of Farmers towards Goat and Sheep Farming. Indian Journal of Extension Education. XXI (1 and 2): 83-85.

Sulakshana, D. 1988. An Explanatory Study of the Constraints in the Promotion of Income Generating Projects for Rural Women in Haryana. Thesis Abstract. XVI (2) 100.

Chowdhury, A. S., B. K. Sil and S. M. J. Hossain. 2003. Sagol Palon Manual. Department of Livestock Services, Krishi Khamar Sarak. Farmgate, Dhaka- 1215.

Thurstone, L.L. 1928. The Measurement of Opinion. Journal of social Psychology. 22: 415-430.

Verma, H.K. and Kumar, K. 1991. Correlates of Farmers' Attitude towards Buffalo Management Practices. Indian Journal of Extension Education, 27 (1 and 2): 97-100.

APPENDIX '1'

Species of (Black Bengal) Goat

A Male Goat

A Castrated Male Goat

A Female Goat

An Attractive Female Goat

APPENDIX '2'

INTERVIEW SCHEDULE

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

An interview schedule for a research study entitled: "**Attitude of Rural Women towards Goat Rearing in Selected Area Under Meherpur District"**

Sample No ..... Date .....
Village .....
Union .....
Upazila .....

01. Age
What is you age .....(Year)?

02. Level of education
Please state your level of education

A. Can't read and write
B. Can sign only
C. I Passed ..... Class or equivalent class

03. Family Size
Mention the number of your family members including yourself .....

04. Farm Size

Please mention the area of land in your possession

Type of land Ownership	Area of land		Total area of land (ha)
	Local Unit	Land in ha	
A. Homestead Area			
B. Land under own cultivation			
C. Land given to others on borga			
D. Land taken from others on borga			
E. Land taken from others on			

Lease			

Farm size = A+B+1/2(C+D)+E

05. Knowledge about goat rearing

Please reply to the following questions

Sl.No.	Questions	Assigned score	Obtained score
1	Mention two quality breeds of goat.	5	
2	What kind of shed is necessary for rearing goat	5	
3	Mention two opportunities of goat rearing at open space.	5	
4	Mention two opportunity at close system.	5	
5	Please mention two major diseases of goat a ..... b	5	
6	Please mention the frequency of delivery offspring per year a ..... b	5	
7	At what age a goat get ready for its first offspring	5	
8	Mention two symptoms of plague disease of goat a ..... b	5	
9	Please mention two techniques to control worm a ..... b	5	
10	What kind of measures should be followed if the kids>2	5	
11	Please mention the name of two vaccine of goat a ..... b	5	
12	What are the causes of kids mortality	5	
13	Please mention two major problems of rearing goat a ..... b	5	
14	Please mention two major benefits of rearing goat a ..... b	5	

06. Family income

Please indicate the production and income of your family from different sources in the last year

A. From agricultural sources

Sl. No.	Sources of income	Total production (Local unit)	Price per unit (Tk.)	Total Tk.
1.	Rice			
2.	Jute			
3.	Wheat			
4.	Oil seed			
5.	Sugarcane			
6.	Pulses			
7.	Vegetables			
8.	Fruits			
9.	Potato			
10.	Cattle rearing			
11.	Goat rearing			
12.	Poultry rearing			
13	Nursery			
14	Tree			
15	Others (if any)			

B. From non-agricultural sources

Sl. No.	Sources	Monthly income (Tk)	Total Tk.
1.	Business		
2.	Service		
3.	Labor		
4.	Others (if any)		

Total family income = A+B

07. Credit received

Did you receive any credit for goat rearing purpose last year?
Yea ..... No .....
If yes, please give answer to the following questions

Sl. No.	Sources of Credit	Amount of credit receipt (Tk.)
1.	Bank (Sonali, Krishi, Janata etc.)	
2.	Village money lender	
3.	Relatives	
4.	NGO	
5.	Bangladesh Rural Development Board	
6.	Others (if any)	

08. Grazing land availability

Please indicate your opinion on the extent of grazing land availability of the following sources

Sources	Extent of fodder collection			
	Enough	Moderate	Not enough	Nil
Own grazing land				
Pond sides				
Road sides				
River sides				
Fallow land				
Others (if any)				

09. Communication Exposure

Please indicate the extent of your extension media contact with the following sources

Extension media	Extent of use of information sources (no.)				
	Most Often (4)	Often (3)	Sometimes (2)	Rarely (1)	Never (0)
Neighbors (per week)					
Friends (per month)					
Relatives (per year)					
Ideal farmer (per month)					
Ideal women (per month)					
NGO workers (per 3 month)					
Veterinary Field Assistant (per 3 month)					
Upazila Agricultural Officer (per year)					
Upazila Livestock Officer (per year)					
Group meeting (per year)					
Result demonstration (per year)					
Farm Radio Talk programme (per month)					
Farm TV programme (per month)					
Newspaper (per week)					
Booklets (per month)					

10.Attitude towards goat rearing

SL. No.	Statements	Nature of attitude				
		Strongly age (4)	**Agree (3)**	**No opinion (2)**	**Disagree (1)**	**Strongly disagree (0)**
01+	Goat rearing can generate more income in a short period of time.					
02-	Goat rearing creates unfriendly relation with neighbors by eating their vegetables and crops					
03+	A goat can give birth to 3-4 kids at a time which is economically profitable					
04-	Quality goats are not always available					
05+	Goals live in a group and it is possible to accumulate a large number of goats in a small place.					
06-	Goat supplies less amount of milk					
07+	Supplementary food requirement is not necessary					
08-	Rural women only rear goat but their husbands grasp the benefits					
09+	Comparatively goats are resistant to diseases.					
10-	Credits are not available for goat rearing					
11+	Rural women can easily take care of goats.					
12-	In the rainy season goat rearing is very difficult because goats are attacked by various diseases.					
13+	Rural women can meet up their money problem by selling goats in time of need					
14-	Rural women have less idea of goat treatment					
15+	Goat rearing helps to earn more income as compared to crop production					
16-	Goat rearing is very laborious.					
17+	Goat rearing is environment friendly					
18-	Rural women have lack of knowledge to supervise goats properly.					
19+	Goat's milk is nutritious					
20-	Fox and other wild animals are threat for goat rearing					

11. Please mention your problem (s) that you faced during goat rearing

Problem (s)	Extent of problem		
	High	Moderate	Low
1. Goat die due to plague disease			
2. Create unfriendly relation with neighbor by eating their crops			
3. It is very hard to rear goat at rainy season			
4. Lack of good breed goat			
5. Cannot give much milk			
6. Damage the sapling & vegetables of neighbor			
7.Lack of doctor for goat treatment			
8. Lack of grazing land			
9. Restriction of grazing on road side due to plantation			
10. Lack of credit.			

Thanks for your cooperation

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Signature of the interviewer

APPENDIX '3'

Correlation matrix of the dependent and independent variables

Variable	Age	Education	Family size	Farm size	Family income	Credit availability	Grazing land availability	Communication exposure	Knowledge about goat rearing	Attitude towards goat rearing
Age	1									
Education	-.544(**)	1								
Family size	.384(**)	-.226(*)	1							
Farm size	.252(*)	.221(*)	.242(*)	1						
Family income	.288(**)	.175	.443(**)	.736(**)	1					
Credit availability	.067	-.089	.150	-.035	-.152	1				
Grazing land availability	-.063	.138	.068	.101	.044	-.018	1			
Communication exposure	-.533(**)	.415(**)	-.070	-.129	-.056	-.004	.167	1		
Knowledge about goat rearing	-.107	.288(**)	-.128	-.104	.002	.203(*)	.048	.327(**)	1	
Attitude towards goat rearing	-.153	.302(**)	-.172	.056	.015	-.076	-.075	.187	.261(**)	1

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

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